Movement by Perfection

Centrifugal Fans

Main Catalogue Part 1
Edition 2013

The Royal League in **ventilation**, control and drive technology

ZIEHL-ABEGG

Series Overview
Centrifugal Fans Main Catalogue Part 1

Part 1

Cpro-ECblue

Vpro-ECblue

Vpro

L-series

M-series

Part 2

RM..D-ECblue

RM..D

RG..R-ECblue

P-series

S-series

Air with IQ

Air is inert by nature. Influences in nature such as temperature gradients start moving the air – but unfortunately, in a rather uncontrolled way and not always to people's advantage. In order to make air movement useful, we recommend our intelligent ventilation and control engineering solutions. They are not only effective and reliable but are also aimed at a multitude of specific requirements. As the world's leading system supplier of fans with matching control engineering, you will certainly be able to find fans for your sector and application in our product range. Educated minds don't leave anything to chance. Instead, they trust ZIEHL-ABEGG's extensive expertise.

FANselect

Reach your goal easily, quickly, and without any complications!The world's most precise program for fans and systems components.For more information log on to our website at www.fanselect.info

Additional catalogues

Our extensive catalogues Axial Fans, Centrifugal Fans, Centrifugal Fans for air handling units, Control Technology and other catalogs are available on our www.ziehl-abegg.com website in the „Download" area. We would be glad to send printed catalogues on request.

Contents


ZIEHL-ABEG
Die Königskla
der Lufttechnik,
Regeltechnik und Antriebstechni
Radialventilator
ZAmid® Technologie

No one can get past the Royal League

ZIEHL-ABEGG has stood for movement by perfection in the ventilation technology, control technology and drive technology sectors for more than 100 years. What started with the invention of the first external rotor motor by Emil Ziehl is now being carried on at the company's sites around the world. We are the pioneers, masterminds and developers of technologies for the future who more than satisfy all demands to preserve an environment worth living in and to meet all our customers' requirements and wishes.

Think in the future - discover ZIEHL-ABEGG

We look forward to seeing you in ventilation, control and drive technology. There, where ideas are the daily challenge and where the latest, outstanding technologies are developed.

Welcome to the best.

Welcome to the Royal League

From fans and motors to matching control technology

Our unique selling point – your advantage

What is important to us is to correctly match our systems to your specific needs. Whether refrigeration, air conditioning, for use in your manufacturing processes or anywhere else - we reliably move air wherever it is required and at the right time. At the main Künzelsau location more than 100 engineers and technicians work in one of the most modern technology centers of this kind.

We supply the highest quality standards with **the world's largest air and noise test-bench for fans** which can completely mask vibrations and external noises. This guarantees fan measurements of the highest class according to ISO and DIN. This is the reason ZIEHL-ABEGG products with the **Premium Quality** and **Premium Efficiency** are certified - that is the reason our products and services are in the Royal League.

The world's most modern and largest test-bench for fans at the main location in Künzelsau

Right picture:
Most modern production lines for fans with the highest demands in the world

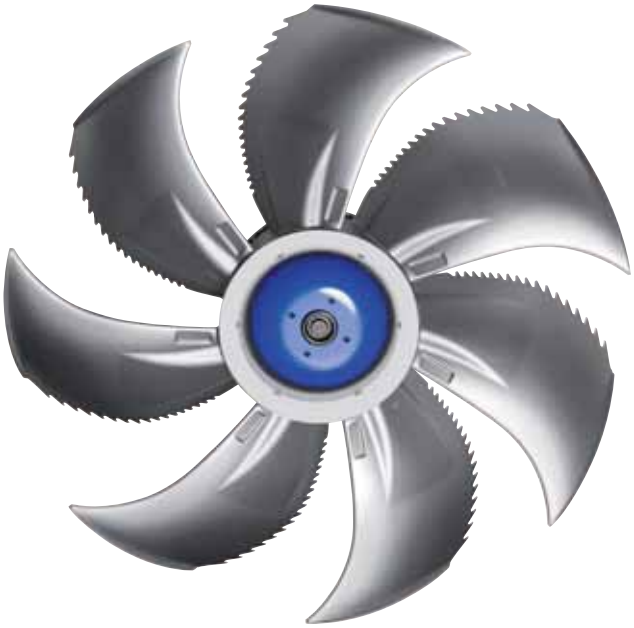
The Royal League of EC fans

So quiet, so efficient, so ECblue

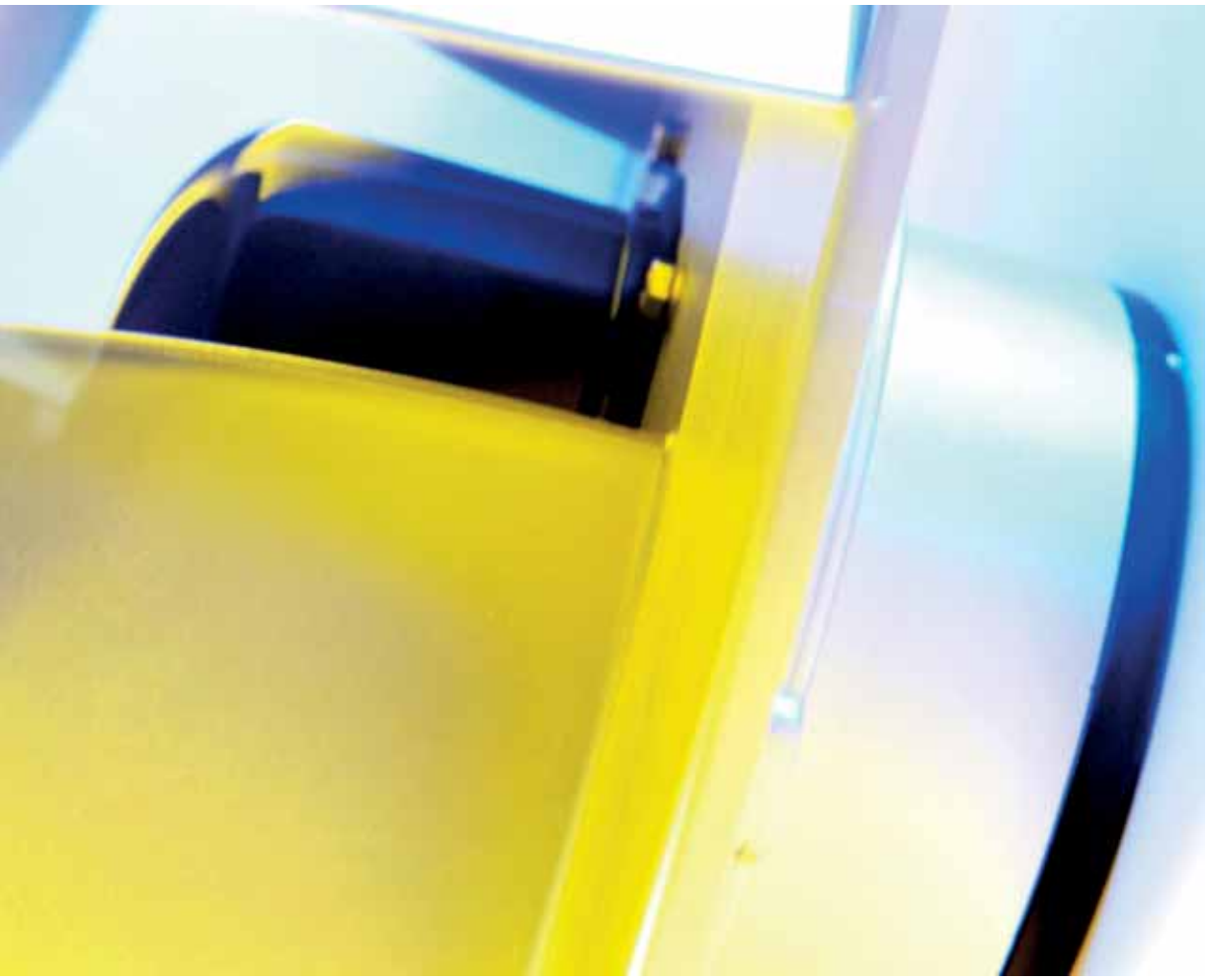
Unifying the latest motor technology and innovative aerodynamics provides unbeatable efficiency and definitely saves energy costs. The latest generation of axial fans with ECblue technology, such as the FE2owlet, is a genuine revolution. The toothed bionic profile of the rotor used here makes this fan almost completely silent. We provide pure innovation with fans such as the Cpro centrifugal fan in new **ZA***mid*® *Technology*. The high-performance composite material we developed is as hard as steel and guarantees, along with longer service lives, the reliable production of fans with newly developed blade geometry of the highest level. The unique rotor blades combined with ECblue motors achieve unsurpassed air dynamics, putting them into the top-class of environmental friendliness with the highest energy-savings potential. Used in any application, including process fans up to 600 °C, the highest volume flow rates provide extraordinary efficiency at extremely low noise levels.

ECblue motor technology

Maximum efficiency and minimum consumption
ECblue with the latest **Z A** *m i d*® *Technology*
Radial fans sector



Unique bionic profile FE2owlet,
combined with ECblue technology



The Royal League of AC fans

So powerful, so insusceptible, so AC technology

In the AC motor technology sector, our development efforts are completely dedicated to the future. We now supply our modern fans combined with AC technology wherever unusual temperature ranges and materials are needed for demanding applications. The simple and yet sturdily constructed, high-quality motor technology remains consistent even during exceptional demands. AC fans are used in many industrial sectors and in agriculture whenever absolute insensitivity and stability are the top priority.Intelligently used components such as the ZIEHL-ABEGG Fcontrol frequency inverters turn the combination of fans and AC motors into a modern, ecologically sound and efficient top-class performer. Our modern AC motors are maintenance-free and promise a secure investment in the future.

AC motor technology, robust in operation

Expertise in ventilation

ErP Directive

By adopting the Kyoto Protocol, the European Union committed itself to reducing CO_2 emissions by at least 20% by 2020. One of the measures taken to help achieve this was the EuP (Energy using Products) Directive adopted by the EU in 2005, which was renamed ErP (Energy related Products) Directive in 2009, and is also known as the „Eco-design Directive“.
The ErP implementation measure for fans defines minimum efficiency levels for fans in the power range from 125 Watt to 500 kW, which will prevent „energy guzzlers“ from being brought into circulation in Europe in the future. The ErP Directive is being implemented in two stages: Stage 1 in 2013 and Stage 2 in 2015. This gives energy efficiency the same standing as compliance with the Low Voltage or EMC Directive. The system efficiency requirement is a prerequisite for CE certification and is thus essential for a product to be used in EU member states. Labelling like that used on refrigerators and washing machines will not be required for fans, as fan manufacturers generally have no influence on the installation conditions.

The catalogue contains the relevant ErP rating as part of the fan description.

If you have chosen ZIEHL-ABEGG, you can be confident about the future: ZIEHL-ABEGG is playing its usual pioneering role in ErP and supplies fans today that already surpass the requirements for tomorrow.

EVIA
European Ventilation Industry Association

The **E**uropean **V**entilation **I**ndustry **A**ssociation (EVIA) represents the European ventilation industry with national and European institutions.
The EVIA is the key platform for fan manufacturers and is their interface to politicians, decision-makers in the European Union, and other associations that use fans in their products. The EVIA supports the use of high efficiency fans in Europe to implement the EU targets for increased efficiency.
ZIEHL-ABEGG played a leading role in its foundation and supports the EVIA with active involvement in its working groups. ZIEHL-ABEGG also provides the chairman.

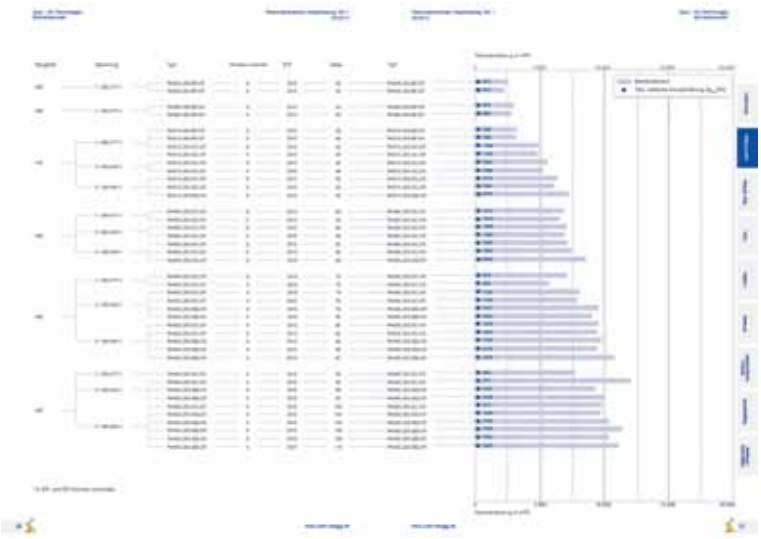
Selection of fans step by step

1. Centrifugal fans overview

Get an initial overview of our centrifugal fans and quickly navigate to the section of the catalogue pertaining to your needs.

2. Quick selection

Obtain product details quickly and easily, thanks to quick selection using the volume flow rate and the volume flow rate technical data.



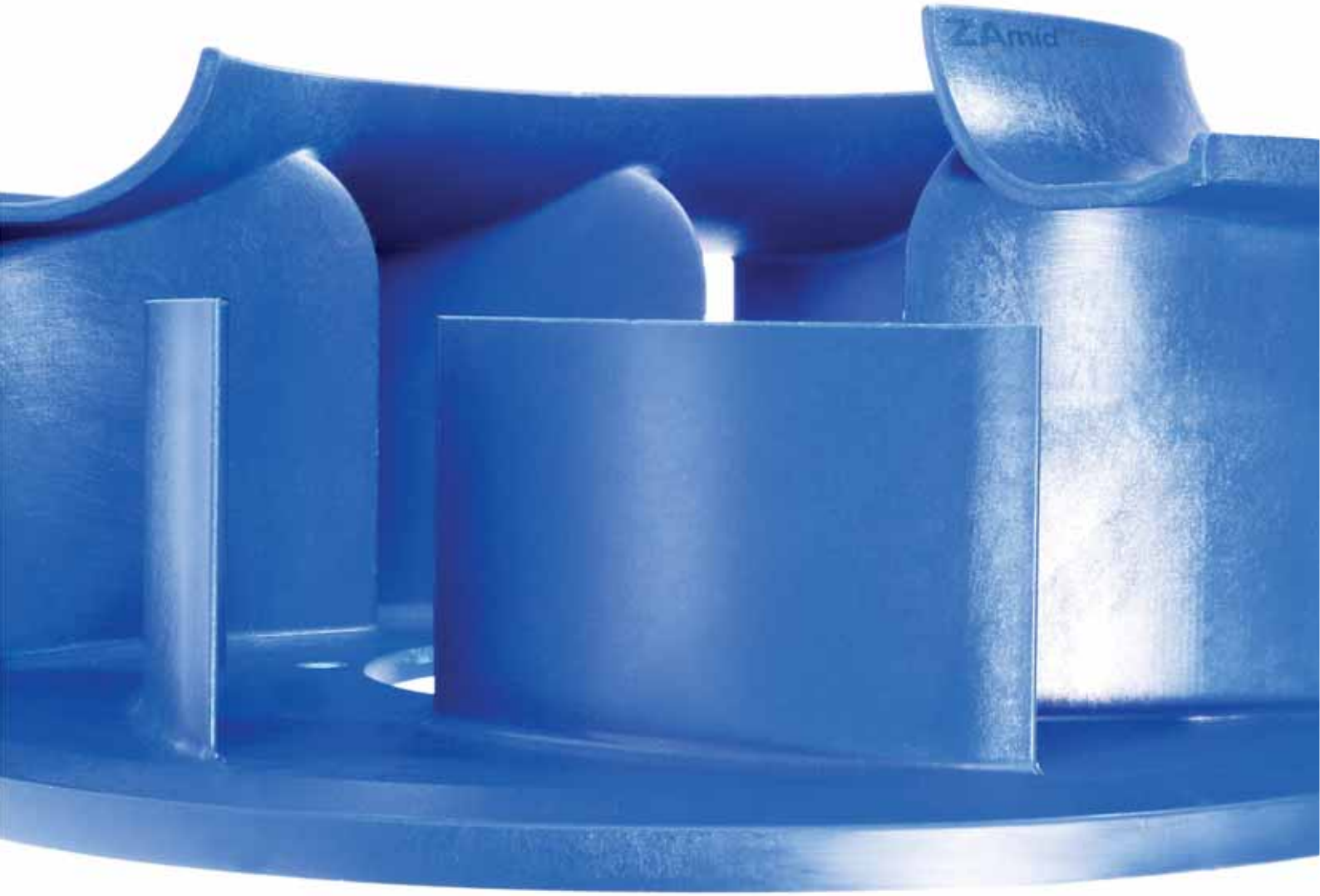
3. Product details

The double product page contains all relevant product information for your selected fan.

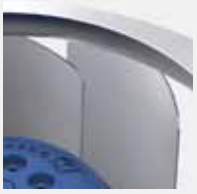
Pure innovation

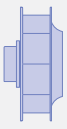
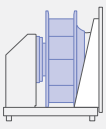
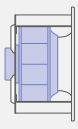
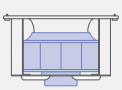
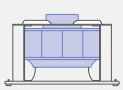
ZAmid® Technology

ZA*mid*®*technology* is the name of our newly developed high-performance composite material. This high-tech material is unbelievably light yet hard as steel. This leads to a considerable reduction in the total fan weight while still guaranteeing maximum stability during handling and further processing. The new Cpro**ZA***mid*® fan generation, combined with our sophisticated development of an impressive three-dimensional blade geometry, makes this fan a marvel of flow technology. Cpro**ZA***mid*® is cast in one piece without welding seams. This feature makes it aerodynamic and process reliable during operation. It is suitable for high circumference velocities (70m/s, no restrictions at all in comparison with a steel impeller) and can withstand the highest centrifugal forces. Cpro**ZA***mid*® is suitable for the same application temperatures as a comparable steel impeller, low rotation noise/reduced up to 5 dB.



Overview centrifugal fans

Centrifugal fan	ZAmid	High Performance Composite Material	High Performance Composite Material	Galvanised steel	Aluminium
	Cpro-ECblue	**Vpro-ECblue**	**Vpro**	**L-series**	**M-series**
	Page 24	Page 146	Page 224	Page 386	Page 412
Impeller					
					
					
Size	Design				
190		RH, GR	RH	RH	
220		RH, GR	RH	RH	
225		RH	RH	RH	
250	RH, ER, GR	RH, GR	RH	RH	RH
280	RH, ER, GR	RH, GR	RH	RH	RH
315	RH, ER, GR	RH, GR	RH	RH	RH
355	RH, ER, GR	RH, GR	RH		RH
400	RH, ER, GR	RH, GR	RH		RH
450	RH, ER, GR	RH, GR	RH		RH
500	RH, ER, GR	RH, GR	RH		RH
560	RH, ER, GR	RH, GR	RH		
630	RH, ER, GR	RH, GR	RH		

Design	Free-running impeller RH	Plug fan ER	Ventilation unit GR	Ventilation unit GR	Ventilation unit GR
Installation position	H/Vu/Vo	H	H	Vo	Vu
					

Technical description

Cpro-ECblue

RH25..63C
Single inlet, backward curved motorised impeller
energy-optimised for operation without spiral housing using special three-dimensional blade geometry with rotating bladeless diffuser for high efficiencies and favourable acoustic behaviour
Air flow rate up to 19.000 m³/h and up to 1.800 Pa

∅250 - 630 mm available in 9 sizes

Impeller made of high-strength composite material ZAmid in ultramarine blue. Meets the requirements for microbial inertness, therefore suitable for stricter hygiene requirements as well as clean rooms.
Galvanised sheet steel inlet ring with air flow meter.

Version with integrated ECblue technology
Externally controllable speed setting via 0…10 V / PWM
Motor size D_, G_ additionally expandable by means of add-on modules
The premium electronics are equipped with integrated control functionality and a communication interface
Overtemperature protection of the device electronics via active temperature management
Motor coated ultramarine blue
Protection class IP54, thermal class THCL155
Motor efficiency class according to IE4 (Draft)
Motor/impeller statically and dynamically balanced according to ISO 1940 Part 1
Installation position of motor shaft: either horizontal or vertical
Permissible ambient temperature: -20 °C to +60 °C

GR25..63C for horizontal and vertical air flow
Screwed support structure of galvanised sheet steel with cross-shaped motor support
Installation position motor shaft: either horizontal (H) and vertical* (Vu = impeller air intake from below, Vo = impeller air intake from above)
*GR module decoupled by means of rubber dampers
Increased corrosion protection measures upon request

ER25..63C for horizontal air flow
Compact, optimised galvanised sheet steel structure
Whole unit fastened to C-profiles and therefore suitable for decoupled installation by means of rubber or spring vibration dampers
Horizontal installation position of motor shaft
Increased corrosion protection measures upon request

Application
Air conditioning and refrigeration technology (especially RLT devices), ventilation, separation systems

Advantages
Cpro is a light composite impeller with optimised 3D blade geometry for air flow rate and acoustics. The high-quality plastic material allows for a wide application temperature range of -20 °C to +60 °C and also offers a high level of chemical resistance.

Technical description

Vpro-ECblue

RH19..63V
Single inlet, backward curved motorised impeller
Energy-optimised for operation without spiral housing using special three-dimensional blade geometry for high efficiencies and with favourable acoustic behaviour
Air flow rate up to 18.000 m³/h and up to 1.300 Pa

ø 190 – 630 mm in 12 sizes

Impeller made of high-performance composite material, sizes up to 250 with sheet steel impeller back plate in black
Meets the requirements for microbial inertness, therefore suitable for stricter hygiene requirements as well as clean rooms

Galvanised sheet steel inlet ring

Version with integrated ECblue technology
Externally controllable speed setting via 0…10 V / PWM
Motor size D_, G_ additionally expandable by means of add-on modules
The premium electronics are equipped with integrated control functionality and a communication interface
Motor coated ultramarine blue
Protection class IP44 / IP54 according to detailed product description, thermal class THCL155
Motor efficiency class up to IE4 (Draft)

Motor/impeller statically and dynamically balanced according to ISO 1940 Part 1
Installation position of motor shaft either horizontal and vertical
Permissible ambient temperature: -15°C to +60°C

GR25..63C for horizontal and vertical air flow
Screwed support structure of galvanised sheet steel with cross-shaped motor support
Installation position of motor shaft: either horizontal (H) or vertical* (Vu = impeller air intake from below, Vo = impeller air intake from above)
*GR module decoupled by means of rubber dampers
Increased corrosion protection measures upon request

Application
Air conditioning and refrigeration technology, heat pump, device and component cooling

Advantages
Vpro is optimised by its 3D blade geometry for applications with a low air flow pressure ratio and is excellently suited for centrifugal applications with low pressure levels.

Technical description

Vpro

RH19..63V
Single inlet, backward curved motorised impeller
Energy-optimised for operation without spiral housing using special three-dimensional blade geometry for high efficiencies and favourable acoustic behaviour
Air flow rate up to 17.500 m³/h and up to 1.000 Pa

ø 190 – 630 mm available in 12 sizes

Impeller made of high-performance composite material, sizes up to 250 with sheet steel impeller floor disk in black
Meets the requirements for microbial inertness, therefore suitable for stricter hygiene requirements as well as clean rooms

Galvanised sheet steel inlet ring

Version in AC technology
Motor protection temperature protector (TB)
Motor 1 coat of paint, pebble grey or blue
Protection class IP44 / IP54 according to detailed product description, thermal class THCL155

Motor/impeller statically and dynamically balanced according to ISO 1940 Part 1
Motor shaft installation position either horizontal and vertical
Permissible ambient temperature: -30°C / -15°C to +40°C / +60°C

Application
Air conditioning and refrigeration technology, heat pump, device and component cooling

Advantages
Vpro is optimised by its 3D blade geometry for applications with a low air flow pressure ratio and is excellently suited for centrifugal applications with low pressure levels.

Technical description

L-series

RH19..31L
Single inlet, backward-curved motor impeller
Optimised for operation in small installation spaces without spiral housing using a special blade design and number
Air flow rate up to 1.900 m³/h and up to 700 Pa

ø 190 – 315 mm available in 6 sizes

Impeller made of composite material with sheet steel impeller back plate size 190 and 220, size 225 - 315 sheet steel, uncoated

Galvanised sheet steel inlet ring

Version in AC technology
Motor protection temperature protector (TB)
Motor coated ultramarine blue
Protection class IP44, thermal class THCL130 or 155 according to detailed product description

Motor/impeller statically and dynamically balanced according to ISO 1940 Part 1
Motor shaft installation position: either horizontal or vertical
Permissible ambient temperature: -30 °C to +70 °C according to detailed product description

Application
Air conditioning and refrigeration technology, device and component cooling

Advantages
Due to its impeller geometry, the L-series is suitable for use in small air conditioning units or fancoils as well as for targeted component cooling. Due to the large number of blades, this impeller also renders a good performance in confined installation conditions.

M-series

RH22..63M
Single inlet, backward-curved motor impeller
Optimised for operation in installation spaces without spiral housing using a special blade design
Air flow rate up to 5.500 m³/h and up to 2.100 Pa

ø 225 – 500 mm available in 8 sizes

Centrifugal impeller made of corrosion-proof aluminium, uncoated

Galvanised sheet steel inlet ring

Version in AC technology
Motor protection temperature protector (TB)
Motor coated silver-grey
Protection class IP44 / IP54 according to detailed product description
Thermal class THCL155

Motor/impeller statically and dynamically balanced according to ISO 1940 Part 1
Motor shaft installation position either horizontal or vertical
Permissible ambient temperature: -20 °C to +70 °C according to detailed product description

Application
Air conditioning and refrigeration technology, railway operation, device and component cooling, drying systems

Advantages
The M-series with the aluminium impeller is a very versatile series for a plethora of different applications, including those with high mechanical demands, such as railway operations and high temperatures in drying systems. The geometry of the impeller allows the use not only as a free-running impeller but also in confined installation conditions.

Type key ECblue

Example **ER 45 C - Z I K . D C . C R**

Design	
Motor impeller	**RH**
Plug fan	**ER**
Ventilation unit	**GR**
Impeller size	
Impeller diameter 250 mm	**25**
	...
Impeller diameter 630 mm	**63**
Series	
Number of poles	
6 pole	**6**
10 pole	**Z**
Type of current	
External rotor EC motor with controller	**I**
Motor design	
Offset flange	**D**
Flange at outer rotor diameter	**K**
Motor	
Impeller index	
ZAmid (Cpro)	**C**
	1
Direction of rotation	
clockwise rotation	**R**
counter-clockwise rotation	**L**

Required order data
Please specify the following when ordering: Type, article no. and part no. system components if applicable

Example
Type: ER45C-ZIK.DC.CR,
Article no.: 114596/A01

Type key

Example **RH 50 V - 4 D K . 6 K . 1 R**

Design	
Motor impeller	**RH**
Plug fan	**ER**
Ventilation unit	**GR**
Impeller size	
	...
Impeller diameter 450 mm	**45**
Impeller diameter 500 mm	**50**
Impeller diameter 560 mm	**56**
Impeller diameter 630 mm	**63**
Series	
V impeller	**V**
L flange	**L**
M impeller	**M**
Number of poles	
2-pole	**2**
4 pole	**4**
4-4 pole	**V**
6 pole	**6**
6-6 pole	**S**
8 pole	**8**
8-8 pole	**A**
Type of current	
three phase alternating current	**D**
single phase alternating current	**E**
Motor type	
offset flange on rotor exterior diameter	**D**
flange on rotor exterior diameter	**K**
without flange on rotor exterior diameter	**P**
Motor	
Impeller index	
	C
	1
	2
	3
Direction of rotation	
clockwise rotation	**R**
counter-clockwise rotation	**L**

Required order data
Please specify the following when ordering: Type, article no. and part no. system components if applicable

Example
Type: RH50V-4DK-6K.1R
Article no.: 113290

Selection programme FANselect

The world's best selection programmme for fans

At www.fanselect.info, we are offering you FANselect, a selection programmme for axial and centrifugal fans with the matching system components.

With FANselect, you can, for instance, select and calculate the fans listed in this catalogue. FANselect provides you a facility for calculating the efficiency, the acoustics, the SFP and much more. In addition, you can also select the matching systems components. You can comfortably save your configuration in a file or print it out.

The FANselect selection programmme, including the customer DLL, is available for you to download at any time at www.fanselect.info.


ZIEHL-ABEGG

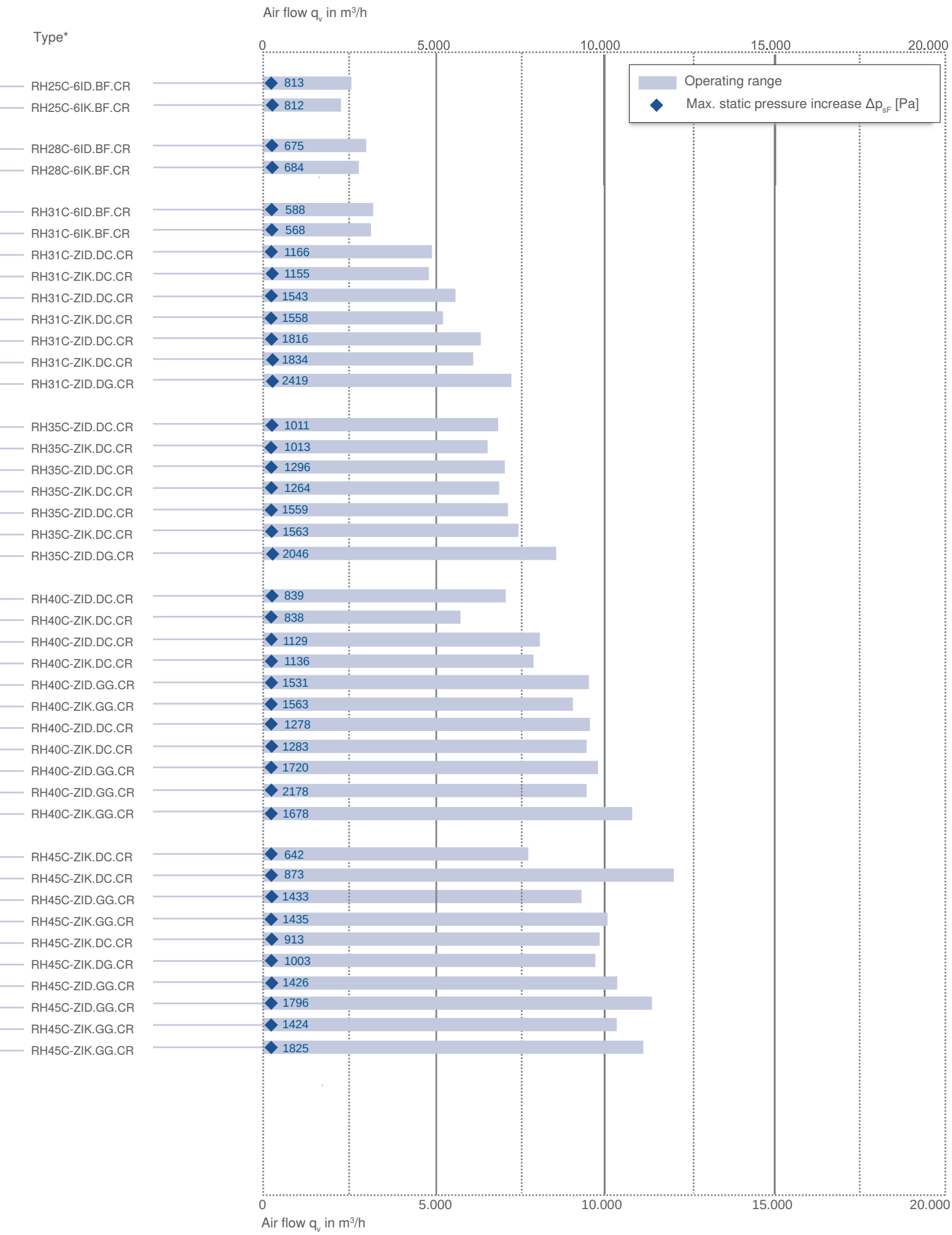
Centrifugal Fans Cpro-ECblue

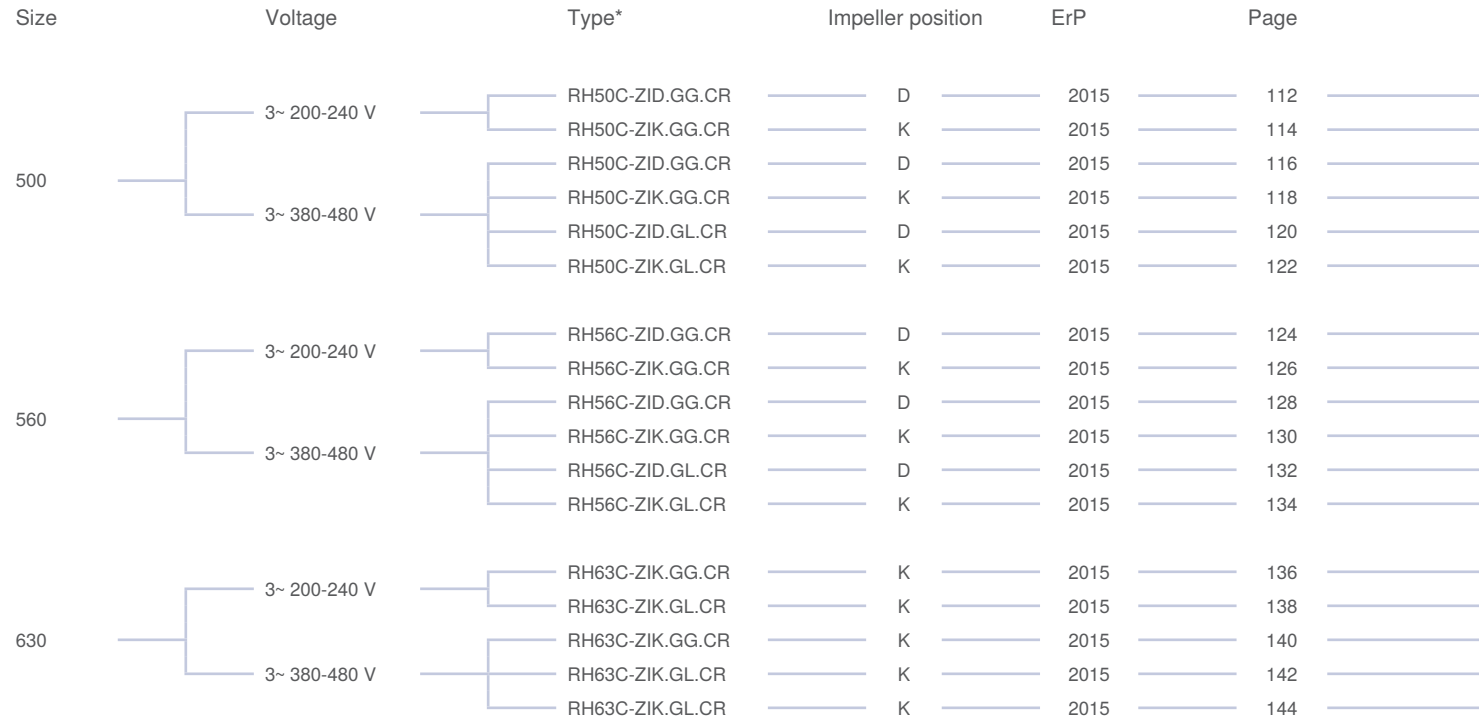
EC technology

Product overview

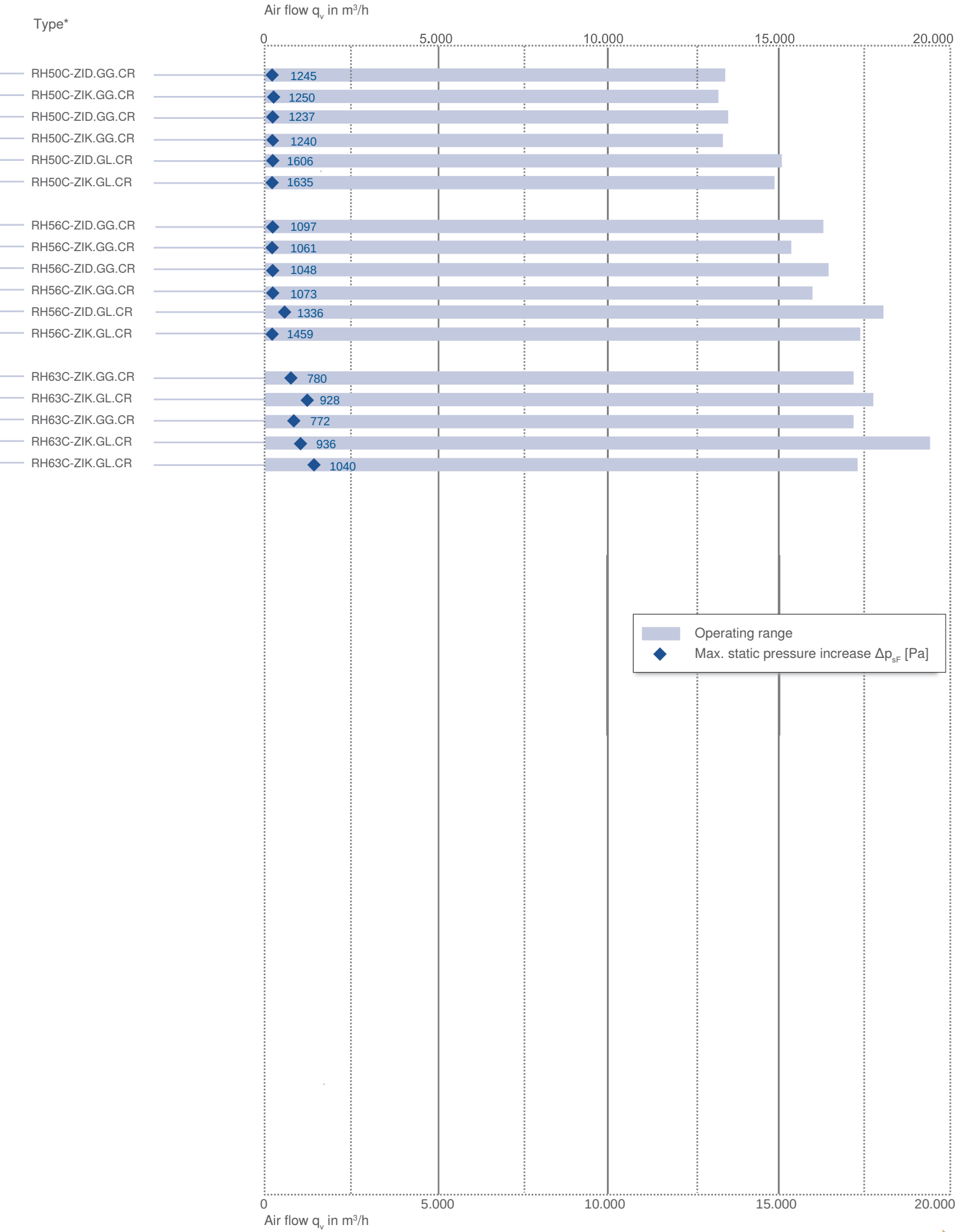
Size	Voltage	Type*	Impeller position	ErP	Page
250	1~ 200-277 V	RH25C-6ID.BF.CR	D	2015	30
		RH25C-6IK.BF.CR	K	2015	32
280	1~ 200-277 V	RH28C-6ID.BF.CR	D	2015	34
		RH28C-6IK.BF.CR	K	2015	36
315	1~ 200-277 V	RH31C-6ID.BF.CR	D	2015	38
		RH31C-6IK.BF.CR	K	2015	40
		RH31C-ZID.DC.CR	D	2015	42
		RH31C-ZIK.DC.CR	K	2015	44
	3~ 200-240 V	RH31C-ZID.DC.CR	D	2015	46
		RH31C-ZIK.DC.CR	K	2015	48
	3~ 380-480 V	RH31C-ZID.DC.CR	D	2015	50
		RH31C-ZIK.DC.CR	K	2015	52
		RH31C-ZID.DG.CR	D	2015	54
355	1~ 200-277 V	RH35C-ZID.DC.CR	D	2015	56
		RH35C-ZIK.DC.CR	K	2015	58
	3~ 200-240 V	RH35C-ZID.DC.CR	D	2015	60
		RH35C-ZIK.DC.CR	K	2015	62
	3~ 380-480 V	RH35C-ZID.DC.CR	D	2015	64
		RH35C-ZIK.DC.CR	K	2015	66
		RH35C-ZID.DG.CR	D	2015	68
400	1~ 200-277 V	RH40C-ZID.DC.CR	D	2015	70
		RH40C-ZIK.DC.CR	K	2015	72
	3~ 200-240 V	RH40C-ZID.DC.CR	D	2015	74
		RH40C-ZIK.DC.CR	K	2015	76
		RH40C-ZID.GG.CR	D	2015	78
		RH40C-ZIK.GG.CR	K	2015	80
	3~ 380-480 V	RH40C-ZID.DC.CR	D	2015	82
		RH40C-ZIK.DC.CR	K	2015	84
		RH40C-ZID.GG.CR	D	2015	86
		RH40C-ZID.GG.CR	D	2015	88
		RH40C-ZIK.GG.CR	K	2015	90
450	1~ 200-277 V	RH45C-ZIK.DC.CR	K	2015	92
	3~ 200-240 V	RH45C-ZIK.DC.CR	K	2015	94
		RH45C-ZID.GG.CR	D	2015	96
		RH45C-ZIK.GG.CR	K	2015	98
	3~ 380-480 V	RH45C-ZIK.DC.CR	K	2015	100
		RH45C-ZIK.DG.CR	K	2015	102
		RH45C-ZID.GG.CR	K	2015	104
		RH45C-ZID.GG.CR	D	2015	106
		RH45C-ZIK.GG.CR	D	2015	108
		RH45C-ZIK.GG.CR	K	2015	110

*) Available in versions ER and GR


Air flow q_v in m³/h
Type*
0
5.000
10.000
15.000
20.000
Operating range
Max. static pressure increase Δp_{sF} [Pa]
RH25C-6ID.BF.CR 813
RH25C-6IK.BF.CR 812
RH28C-6ID.BF.CR 675
RH28C-6IK.BF.CR 684
RH31C-6ID.BF.CR 588
RH31C-6IK.BF.CR 568
RH31C-ZID.DC.CR 1166
RH31C-ZIK.DC.CR 1155
RH31C-ZID.DC.CR 1543
RH31C-ZIK.DC.CR 1558
RH31C-ZID.DC.CR 1816
RH31C-ZIK.DC.CR 1834
RH31C-ZID.DG.CR 2419
RH35C-ZID.DC.CR 1011
RH35C-ZIK.DC.CR 1013
RH35C-ZID.DC.CR 1296
RH35C-ZIK.DC.CR 1264
RH35C-ZID.DC.CR 1559
RH35C-ZIK.DC.CR 1563
RH35C-ZID.DG.CR 2046
RH40C-ZID.DC.CR 839
RH40C-ZIK.DC.CR 838
RH40C-ZID.DC.CR 1129
RH40C-ZIK.DC.CR 1136
RH40C-ZID.GG.CR 1531
RH40C-ZIK.GG.CR 1563
RH40C-ZID.DC.CR 1278
RH40C-ZIK.DC.CR 1283
RH40C-ZID.GG.CR 1720
RH40C-ZID.GG.CR 2178
RH40C-ZIK.GG.CR 1678
RH45C-ZIK.DC.CR 642
RH45C-ZIK.DC.CR 873
RH45C-ZID.GG.CR 1433
RH45C-ZIK.GG.CR 1435
RH45C-ZIK.DC.CR 913
RH45C-ZIK.DG.CR 1003
RH45C-ZID.GG.CR 1426
RH45C-ZID.GG.CR 1796
RH45C-ZIK.GG.CR 1424
RH45C-ZIK.GG.CR 1825
0
5.000
10.000
15.000
20.000
Air flow q_v in m³/h



* Available in versions ER and GR

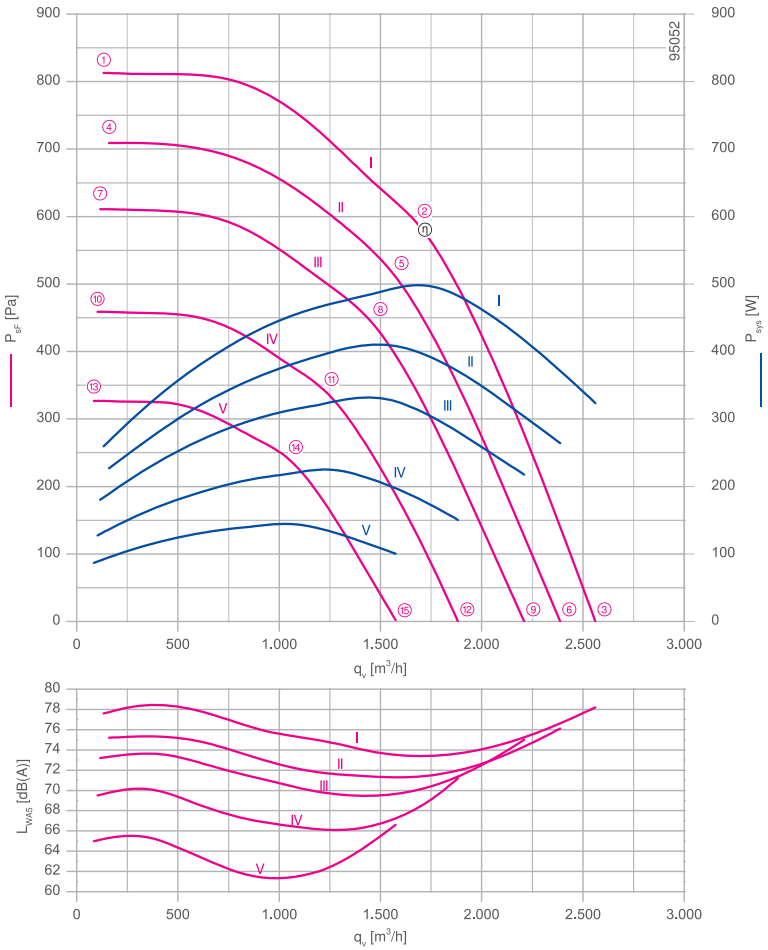

Type*
Air flow q_v in m³/h
0
5.000
10.000
15.000
20.000
RH50C-ZID.GG.CR
RH50C-ZIK.GG.CR
RH50C-ZID.GG.CR
RH50C-ZIK.GG.CR
RH50C-ZID.GL.CR
RH50C-ZIK.GL.CR
RH56C-ZID.GG.CR
RH56C-ZIK.GG.CR
RH56C-ZID.GG.CR
RH56C-ZIK.GG.CR
RH56C-ZID.GL.CR
RH56C-ZIK.GL.CR
RH63C-ZIK.GG.CR
RH63C-ZIK.GL.CR
RH63C-ZIK.GG.CR
RH63C-ZIK.GL.CR
RH63C-ZIK.GL.CR
1245
1250
1237
1240
1606
1635
1097
1061
1048
1073
1336
1459
780
928
772
936
1040
Operating range
Max. static pressure increase Δp_{sF} [Pa]
Air flow q_v in m³/h

C p r o - E C b l u e

for single phase alternating current, 200-277 V

R H 2 5 C - 6 I D

Characteristic curve



measured with inlet ring, without guard grille according to ISO 5801

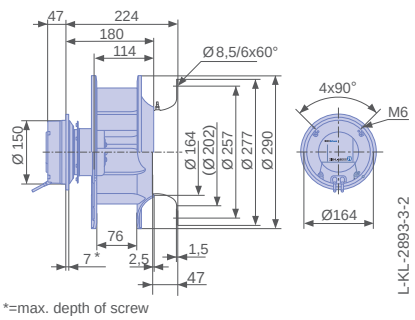
Description

Motor technology: EC
Rated voltage U: **1~200-277 V***
Rated frequency f: **50/60 Hz***
Motor input power P: **0.50 kW***
Rated current I: **2.60-1.90 A***
Rated speed n: **3000 min^{-1}***
Thermal class: **THCL155***
Min. permitted ambient temperature t_R: -20 °C
Max. permitted ambient temperature t_R at n_{max}: 55 °C
Electrical connection: Integrated controller with attached cable
Number of blades : 7
Balancing quality: G 6.3
Protection class: IP54
Motor protection: Integrated active temperature management
Impeller : ZAmid, uncoated, Ultramarine blue
Conformity: ErP 2015, CE
ErP-data
Efficiency η_{statA}: 62.7 %
Efficiency: N_{actual} = 76.4 / N_{target} = 62**
EC controller integrated
*Rated data
**ErP 2015

Inlet ring	00401504	Page 450
Connection diagram	KT00044A	Page 547
Rubber dampers	30x30 / 40	Page 454
Sping vibration dampers	MSN 3	Page 454
System components		Page 448

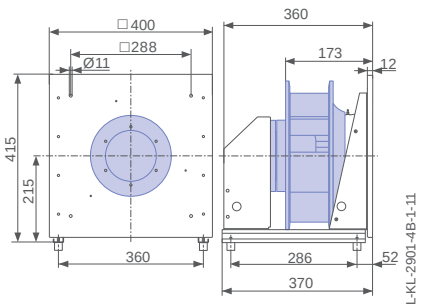
Dimensions [mm]

Free-running motor impeller RH
in installation position H/Vu/Vo

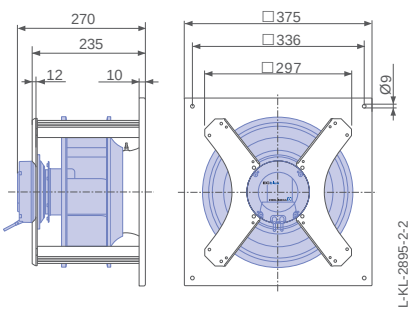


*=max. depth of screw

Plug fan ER in installation position H



Ventilation unit GR in installation position H

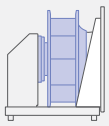
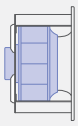
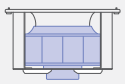


Performance data

Type	Characteristic curve	Speed n [min^{-1}]	Operating point	Current I [A]	Motor input power P_{sys} [W]	Suction side sound power level L_{WA5} [dB]
__25C-6ID.BF.CR	I	3000	①	1.20	260	78
		3000	②	2.30	500	73
		3000	③	1.50	320	78
	II	2800	④	1.10	230	75
		2800	⑤	1.90	400	71
		2800	⑥	1.25	260	76
	III	2600	⑦	0.86	180	73
		2600	⑧	1.55	330	70
		2600	⑨	1.05	220	75
	IV	2250	⑩	0.64	130	70
		2250	⑪	1.05	220	66
		2250	⑫	0.74	150	71
	V	1900	⑬	0.46	85	65
		1900	⑭	0.72	140	61
		1900	⑮	0.52	100	67

Current values determined at 230V

Fan ordering information

Design	RH*	ER**	GR**	GR**	GR**
Installation position	H/Vu/Vo	H	H	Vo	Vu
					
Type	**RH25C-6ID.BF.CR**	**ER25C-6ID.BF.CR**	**GR25C-6ID.BF.CR**	**GR25C-6ID.BF.CR**	**GR25C-6ID.BF.CR**
Basic electronics					
Article no.	**114473**	**114573/A01**	**114525/H01**	**114525/O01**	**114525/U01**
Weight [kg]	5.70	14.00	10.00	10.00	10.00

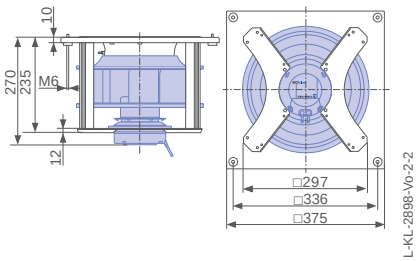
* Inlet ring not included

** Inlet ring integrated

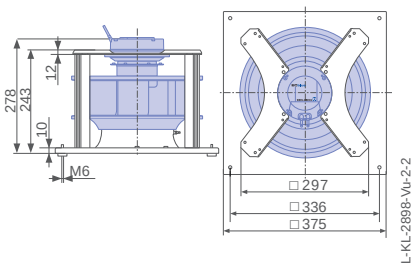
Control technology

Control module	Operating terminal	Expansion module
		
Page 464	Page 476	Page 473

Ventilation unit GR in installation position Vo



Ventilation unit GR in installation position Vu

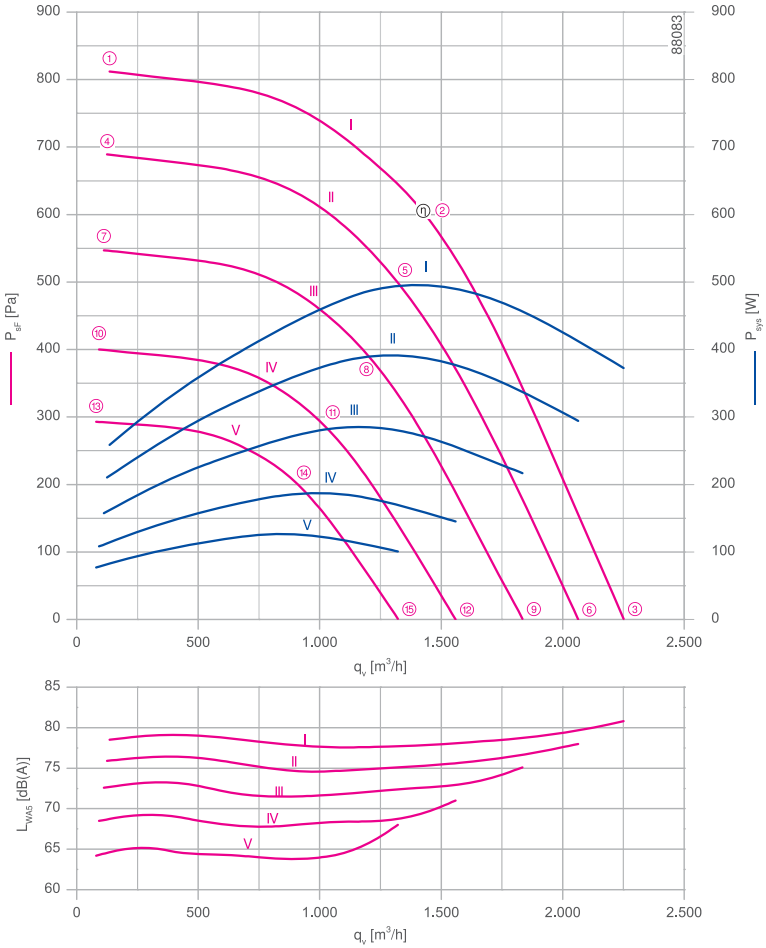


C p r o - E C b l u e

for single phase alternating current, 200-277 V

R H 2 5 C - 6 I K

Characteristic curve



measured with inlet ring, without guard grille according to ISO 5801

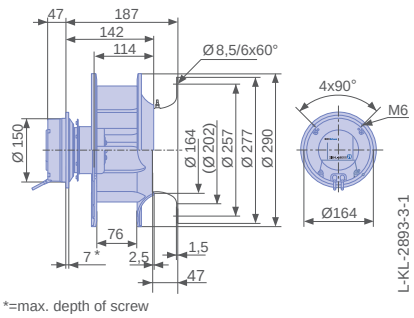
Description

Motor technology: EC
Rated voltage U: **1~200-277 V***
Rated frequency f: **50/60 Hz***
Motor input power P: **0.50 kW***
Rated current I: **2.70-1.95 A***
Rated speed n: **3000 min^{-1}***
Thermal class: **THCL155***
Min. permitted ambient temperature t_R: -20 °C
Max. permitted ambient temperature t_R at n_{max}: 60 °C
Electrical connection: Integrated controller with attached cable
Number of blades : 7
Balancing quality: G 6.3
Protection class: IP54
Motor protection: Integrated active temperature management
Impeller : ZAmid, uncoated, Ultramarine blue
Conformity: ErP 2015, CE
ErP-data
Efficiency η_{statA}: 54.9 %
Efficiency: N_{actual} = 68.6 / N_{target} = 62**
EC controller integrated
*Rated data
**ErP 2015

Inlet ring	00401504	Page 450
Connection diagram	KT00044A	Page 547
Rubber dampers	30x30 / 40	Page 454
Sping vibration dampers	MSN 3	Page 454
System components		Page 448

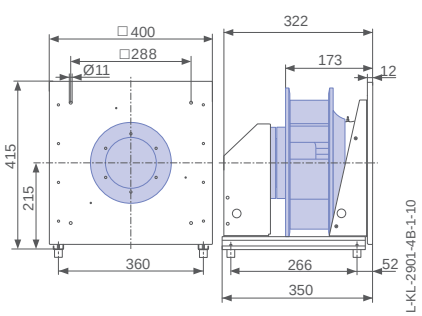
Dimensions [mm]

Free-running motor impeller RH
in installation position H/Vu/Vo

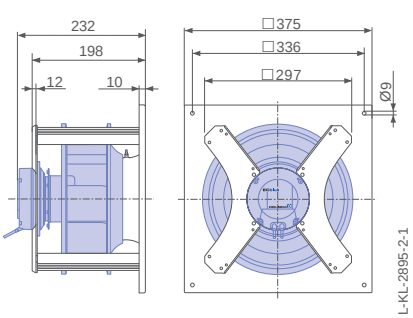


*=max. depth of screw

Plug fan ER in installation position H



Ventilation unit GR in installation position H

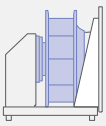
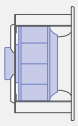
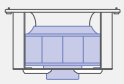


Performance data

Type	Characteristic curve	Speed n [min^{-1}]	Operating point	Current I [A]	Motor input power [W]	Suction side sound power level L_{WA5} [dB]
__25C-6IK.BF.CR	I	3000	①	1.20	260	79
		3000	②	2.20	500	78
		3000	③	1.70	370	81
	II	2760	④	1.00	210	76
		2760	⑤	1.80	390	75
		2760	⑥	1.35	290	78
	III	2460	⑦	0.76	160	73
		2460	⑧	1.30	280	72
		2460	⑨	1.00	220	75
	IV	2100	⑩	0.54	110	69
		2100	⑪	0.90	190	68
		2100	⑫	0.72	150	71
	V	1800	⑬	0.40	75	64
		1800	⑭	0.64	130	64
		1800	⑮	0.52	100	68

Current values determined at 230V

Fan ordering information

Design	RH*	ER**	GR**	GR**	GR**
Installation position	H/Vu/Vo	H	H	Vo	Vu
					
Type	**RH25C-6IK.BF.CR**	**ER25C-6IK.BF.CR**	**GR25C-6IK.BF.CR**	**GR25C-6IK.BF.CR**	**GR25C-6IK.BF.CR**
Basic electronics					
Article no.	**114472**	**114572/A01**	**114524/H01**	**114524/O01**	**114524/U01**
Weight [kg]	5.50	14.00	10.00	10.00	10.00

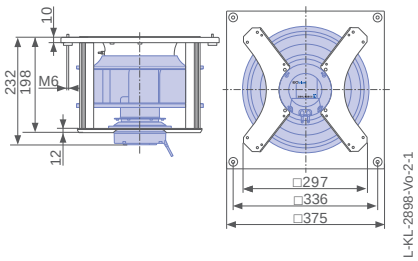
* Inlet ring not included

** Inlet ring integrated

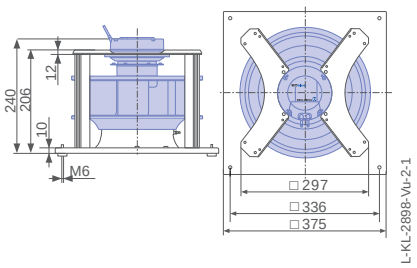
Control technology

Control module	Operating terminal	Expansion module
		
Page 464	Page 476	Page 473

Ventilation unit GR in installation position Vo



Ventilation unit GR in installation position Vu

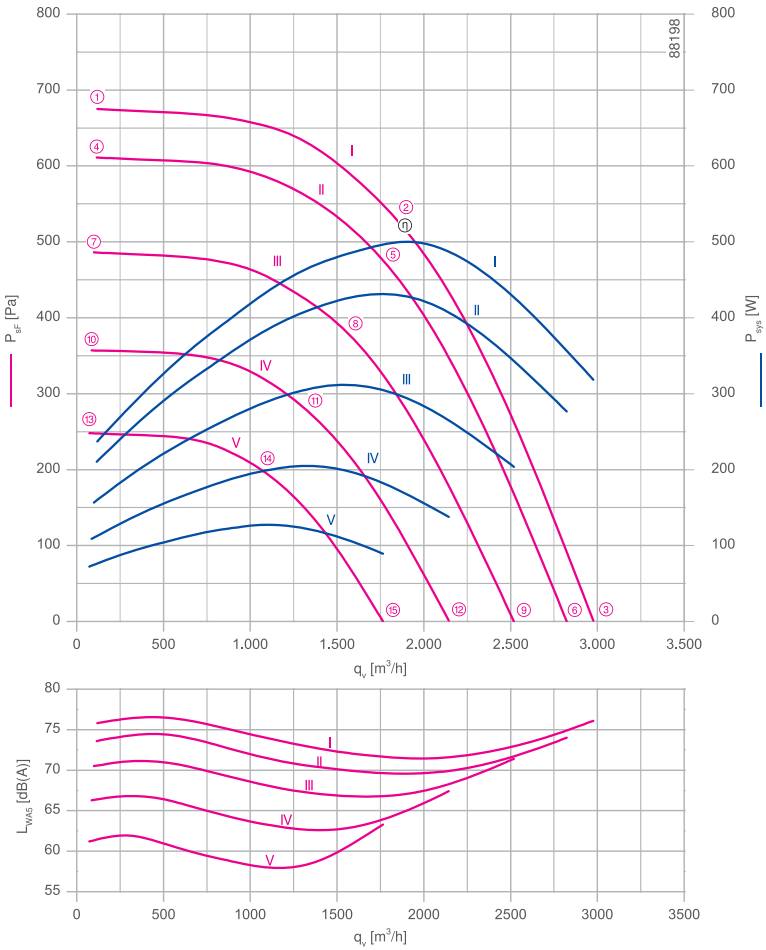


C p r o - E C b l u e

for single phase alternating current, 200-277 V

R H 2 8 C - 6 I D

Characteristic curve



measured with inlet ring, without guard grille according to ISO 5801

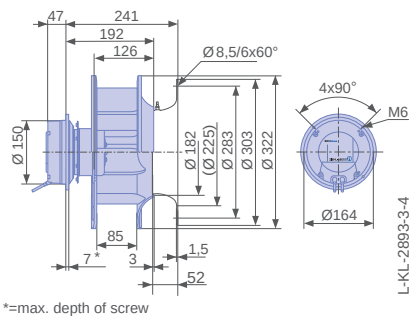
Description

Motor technology: EC
Rated voltage U: **1~200-277 V***
Rated frequency f: **50/60 Hz***
Motor input power P: **0.50 kW***
Rated current I: **2.60-1.90 A***
Rated speed n: **2480 min^{-1}***
Thermal class: **THCL155***
Min. permitted ambient temperature t_R: -20 °C
Max. permitted ambient temperature t_R at n_{max}: 55 °C
Electrical connection: Integrated controller with attached cable
Number of blades : 7
Balancing quality: G 6.3
Protection class: IP54
Motor protection: Integrated active temperature management
Impeller : ZAmid, uncoated, Ultramarine blue
Conformity: ErP 2015, CE
ErP-data
Efficiency η_{statA}: 61.7 %
Efficiency: N_{actual} = 75.4 / N_{target} = 62**
EC controller integrated
*Rated data
**ErP 2015

Inlet ring	00401505	Page 450
Connection diagram	KT00044A	Page 547
Rubber dampers	30x30 / 40	Page 454
Sping vibration dampers	MSN 3	Page 454
System components		Page 448

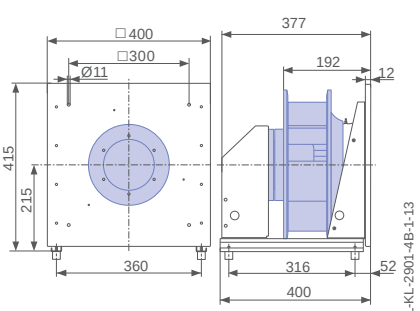
Dimensions [mm]

Free-running motor impeller RH
in installation position H/Vu/Vo

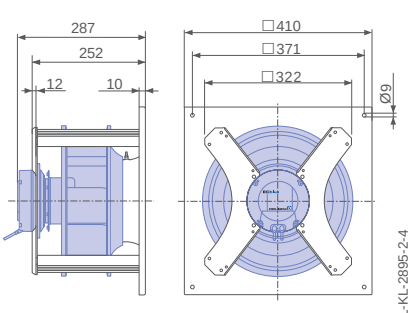


*=max. depth of screw

Plug fan ER in installation position H



Ventilation unit GR in installation position H

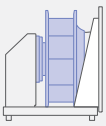
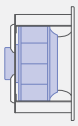
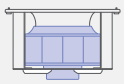


Performance data

Type	Characteristic curve	Speed n [min^{-1}]	Operating point	Current I [A]	Motor input power P_{sys} [W]	Suction side sound power level L_{WA5} [dB]
__28C-6ID.BF.CR	I	2480	①	1.10	240	76
		2480	②	2.30	500	72
		2480	③	1.50	320	76
	II	2350	④	1.00	210	74
		2350	⑤	2.00	440	70
		2350	⑥	1.30	280	74
	III	2100	⑦	0.76	160	71
		2100	⑧	1.45	310	67
		2100	⑨	0.98	200	71
	IV	1800	⑩	0.56	110	66
		1800	⑪	0.98	200	63
		1800	⑫	0.68	140	67
	V	1500	⑬	0.39	70	61
		1500	⑭	0.64	130	58
		1500	⑮	0.46	90	63

Current values determined at 230V

Fan ordering information

Design	RH*	ER**	GR**	GR**	GR**
Installation position	H/Vu/Vo	H	H	Vo	Vu
					
Type	**RH28C-6ID.BF.CR**	**ER28C-6ID.BF.CR**	**GR28C-6ID.BF.CR**	**GR28C-6ID.BF.CR**	**GR28C-6ID.BF.CR**
Basic electronics					
Article no.	**114475**	**114575/A01**	**114527/H01**	**114527/O01**	**114527/U01**
Weight [kg]	6.10	14.00	12.00	12.00	12.00

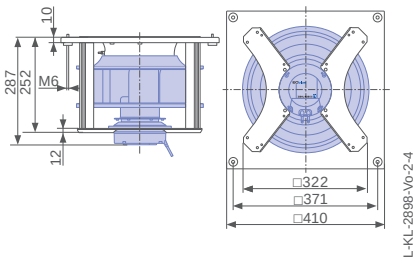
* Inlet ring not included

** Inlet ring integrated

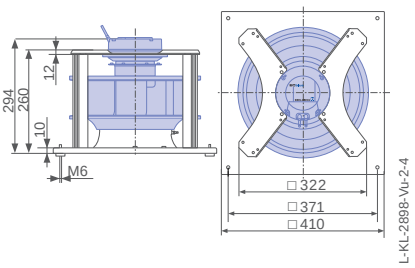
Control technology

Control module	Operating terminal	Expansion module
		
Page 464	Page 476	Page 473

Ventilation unit GR in installation position Vo



Ventilation unit GR in installation position Vu

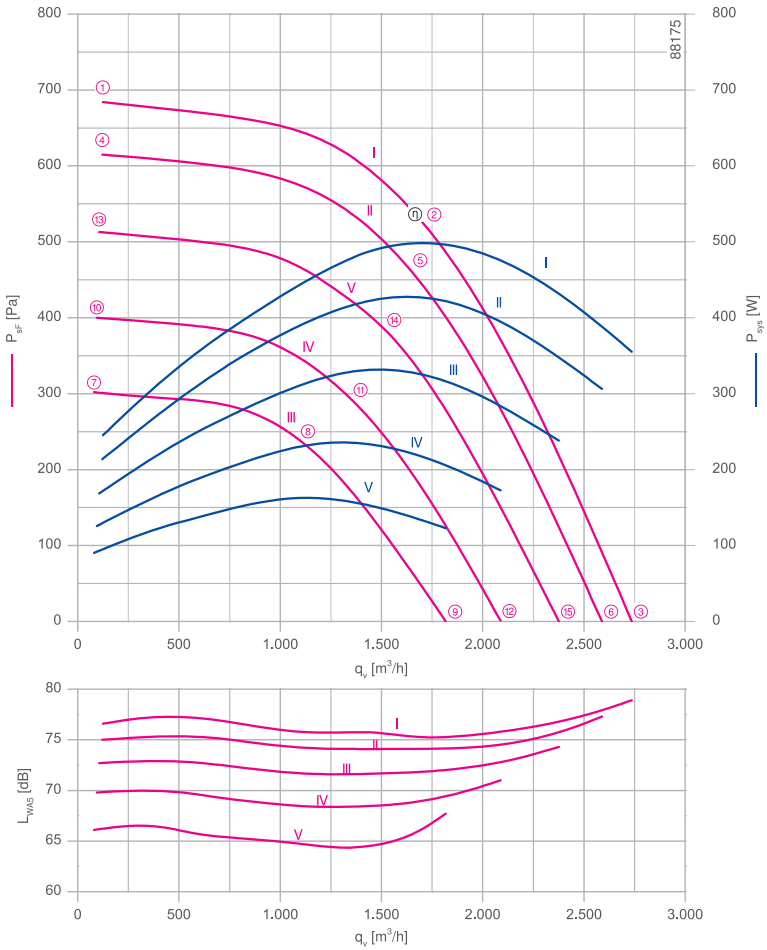


C p r o - E C b l u e

for single phase alternating current, 200-277 V

R H 2 8 C - 6 I K

Characteristic curve



measured with inlet ring, without guard grille according to ISO 5801

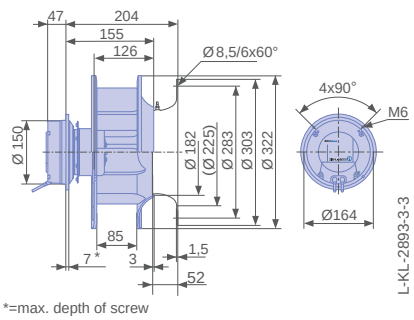
Description

Motor technology: EC
Rated voltage U: **1~200-277 V***
Rated frequency f: **50/60 Hz***
Motor input power P: **0.50 kW***
Rated current I: **2.60-1.90 A***
Rated speed n: **2480 min^{-1}***
Thermal class: **THCL155***
Min. permitted ambient temperature t_R: -20 °C
Max. permitted ambient temperature t_R at n_{max}: 60 °C
Electrical connection: Integrated controller with attached cable
Number of blades : 7
Balancing quality: G 6.3
Protection class: IP54
Motor protection: Integrated active temperature management
Impeller : ZAmid, uncoated, Ultramarine blue
Conformity: ErP 2015, CE
ErP-data
Efficiency η_{statA}: 56.7 %
Efficiency: N_{actual} = 70.4 / N_{target} = 62**
EC controller integrated
*Rated data
**ErP 2015

Inlet ring	00401505	Page 450
Connection diagram	KT00044A	Page 547
Rubber dampers	30x30 / 40	Page 454
Sping vibration dampers	MSN 3	Page 454
System components		Page 448

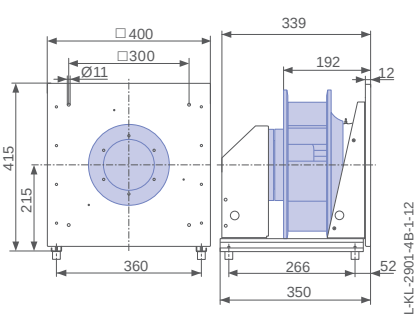
Dimensions [mm]

Free-running motor impeller RH
in installation position H/Vu/Vo

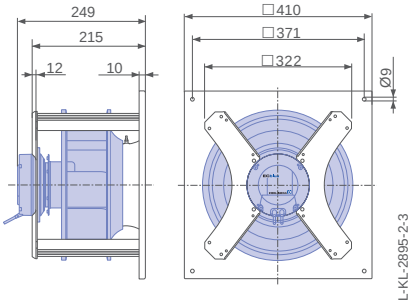


*=max. depth of screw

Plug fan ER in installation position H



Ventilation unit GR in installation position H

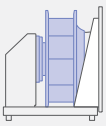
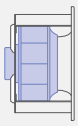
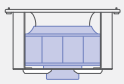


Performance data

Type	Characteristic curve	Speed n [min^{-1}]	Operating point	Current I [A]	Motor input power P_{sys} [W]	Suction side sound power level L_{WA5} [dB]
__28C-6IK.BF.CR	I	2480	①	1.15	250	77
		2480	②	2.30	500	75
		2480	③	1.65	360	79
	II	2350	④	1.00	210	75
		2350	⑤	1.95	420	74
		2350	⑥	1.45	310	77
	III	2150	⑦	0.82	170	73
		2150	⑧	1.55	330	72
		2150	⑨	1.15	240	74
	IV	1900	⑩	0.64	130	70
		1900	⑪	1.15	240	68
		1900	⑫	0.84	170	71
	V	1650	⑬	0.48	90	66
		1650	⑭	0.80	160	65
		1650	⑮	0.62	120	68

Current values determined at 230V

Fan ordering information

Design	RH*	ER**	GR**	GR**	GR**
Installation position	H/Vu/Vo	H	H	Vo	Vu
					
Type	**RH28C-6IK.BF.CR**	**ER28C-6IK.BF.CR**	**GR28C-6IK.BF.CR**	**GR28C-6IK.BF.CR**	**GR28C-6IK.BF.CR**
Basic electronics					
Article no.	**114474**	**114574/A01**	**114526/H01**	**114526/O01**	**114526/U01**
Weight [kg]	5.90	14.00	11.00	11.00	11.00

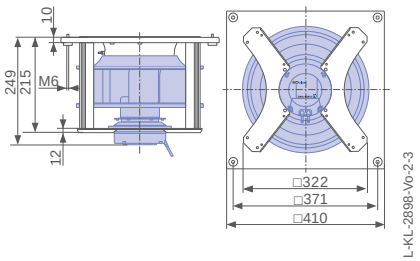
* Inlet ring not included

** Inlet ring integrated

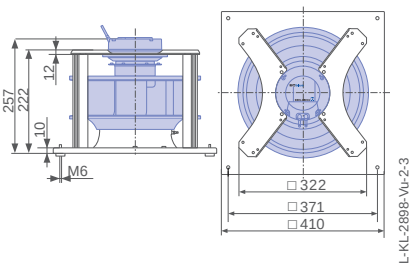
Control technology

Control module	Operating terminal	Expansion module
		
Page 464	Page 476	Page 473

Ventilation unit GR in installation position Vo



Ventilation unit GR in installation position Vu



C p r o - E C b l u e

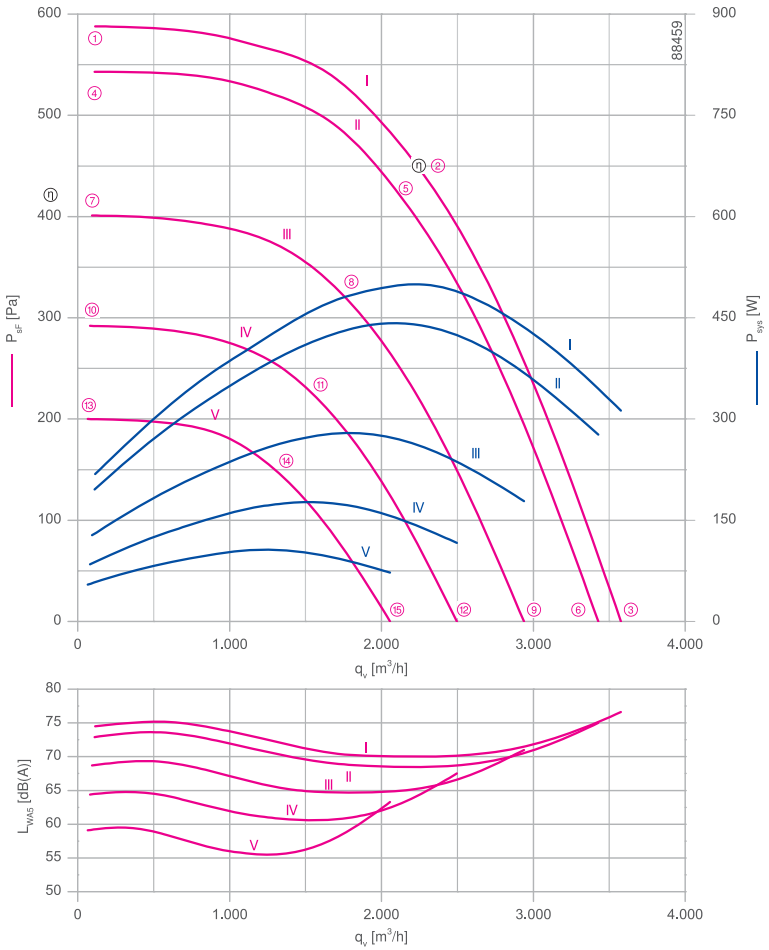
for single phase alternating current, 200-277 V

R H 3 1 C - 6 I D

Description

Motor technology: EC
Rated voltage U: **1~200-277 V***
Rated frequency f: **50/60 Hz***
Motor input power P: **0.50 kW***
Rated current I: **2.60-1.90 A***
Rated speed n: **2060 min^{-1}***
Thermal class: **THCL155***
Min. permitted ambient temperature t_R: -20 °C
Max. permitted ambient temperature t_R at n_{max}: 50 °C
Electrical connection: Integrated controller with attached cable
Number of blades : 7
Balancing quality: G 6.3
Protection class: IP54
Motor protection: Integrated active temperature management
Impeller : ZAmid, uncoated, Ultramarine blue
Conformity: ErP 2015, CE
ErP-data
Efficiency η_{statA}: 63.6 %
Efficiency: N_{actual} = 77.2 / N_{target} = 62**
EC controller integrated
*Rated data
**ErP 2015

Characteristic curve

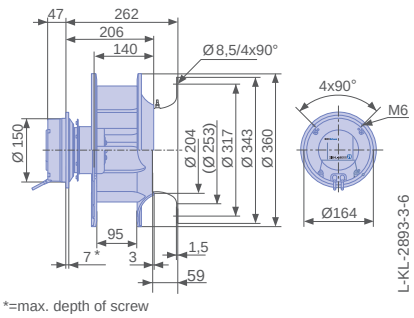


measured with inlet ring, without guard grille according to ISO 5801

Inlet ring	00401506	Page 450
Connection diagram	KT00044A	Page 547
Rubber dampers	30x30 / 40	Page 454
Sping vibration dampers	MSN 3	Page 454
System components		Page 448

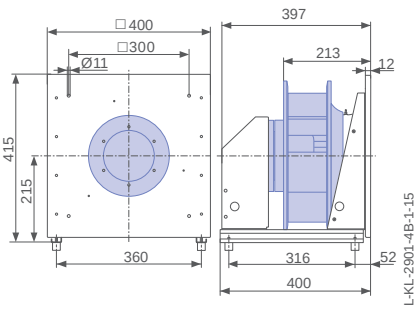
Dimensions [mm]

Free-running motor impeller RH
in installation position H/Vu/Vo

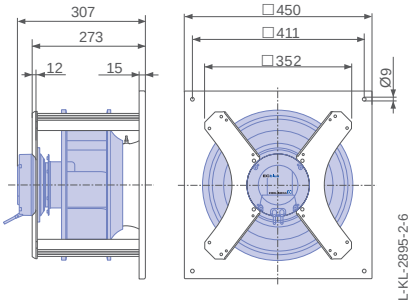


*=max. depth of screw

Plug fan ER in installation position H



Ventilation unit GR in installation position H

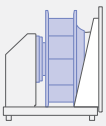
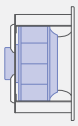
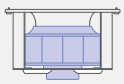


Performance data

Type	Characteristic curve	Speed n [min^{-1}]	Operating point	Current I [A]	Motor input power P_{sys} [W]	Suction side sound power level L_{WA5} [dB]
__31C-6ID.BF.CR	I	2060	①	1.05	220	75
		2060	②	2.30	500	70
		2060	③	1.45	310	77
	II	1980	④	0.94	200	73
		1980	⑤	2.00	440	69
		1980	⑥	1.30	280	75
	III	1700	⑦	0.64	130	69
		1700	⑧	1.30	280	65
		1700	⑨	0.88	180	71
	IV	1450	⑩	0.44	85	64
		1450	⑪	0.86	180	61
		1450	⑫	0.58	120	68
	V	1200	⑬	0.30	55	59
		1200	⑭	0.54	110	56
		1200	⑮	0.38	70	63

Current values determined at 230V

Fan ordering information

Design	RH*	ER**	GR**	GR**	GR**
Installation position	H/Vu/Vo	H	H	Vo	Vu
					
Type	**RH31C-6ID.BF.CR**	**ER31C-6ID.BF.CR**	**GR31C-6ID.BF.CR**	**GR31C-6ID.BF.CR**	**GR31C-6ID.BF.CR**
Basic electronics					
Article no.	**114477**	**114577/A01**	**114529/H01**	**114529/O01**	**114529/U01**
Weight [kg]	6.50	15.00	13.00	13.00	13.00

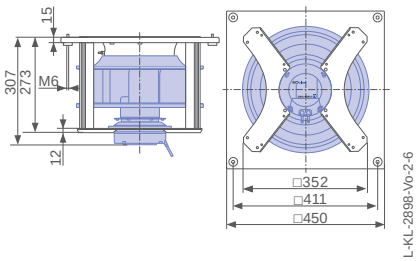
* Inlet ring not included

** Inlet ring integrated

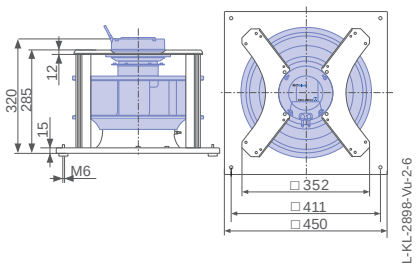
Control technology

Control module	Operating terminal	Expansion module
		
Page 464	Page 476	Page 473

Ventilation unit GR in installation position Vo



Ventilation unit GR in installation position Vu



C p r o - E C b l u e

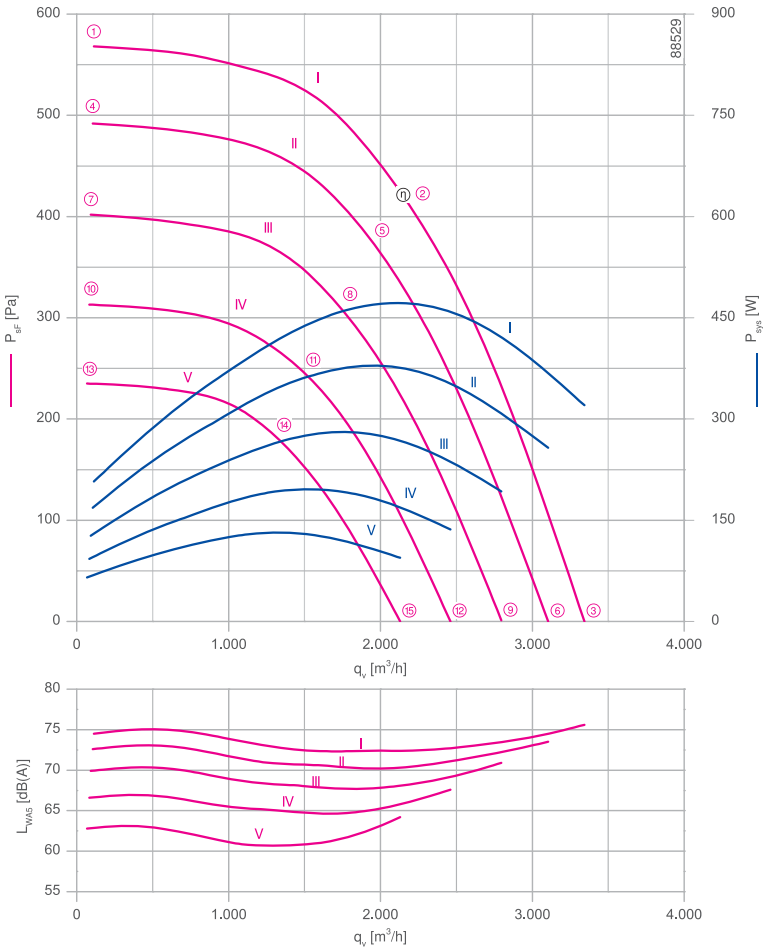
for single phase alternating current, 200-277 V

R H 3 1 C - 6 I K

Description

Motor technology: EC
Rated voltage U: **1~200-277 V***
Rated frequency f: **50/60 Hz***
Motor input power P: **0.48 kW***
Rated current I: **2.50-1.80 A***
Rated speed n: **2020 min^{-1}***
Thermal class: **THCL155***
Min. permitted ambient temperature t_R: -20 °C
Max. permitted ambient temperature t_R at n_{max}: 55 °C
Electrical connection: Integrated controller with attached cable
Number of blades : 7
Balancing quality: G 6.3
Protection class: IP54
Motor protection: Integrated active temperature management
Impeller : ZAmid, uncoated, Ultramarine blue
Conformity: ErP 2015, CE
ErP-data
Efficiency η_{statA}: 60.6 %
Efficiency: N_{actual} = 74.5 / N_{target} = 62**
EC controller integrated
*Rated data
**ErP 2015

Characteristic curve

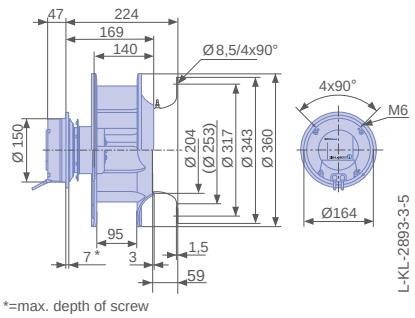


measured with inlet ring, without guard grille according to ISO 5801

Inlet ring	00401506	Page 450
Connection diagram	KT00044A	Page 547
Rubber dampers	30x30 / 40	Page 454
Sping vibration dampers	MSN 3	Page 454
System components		Page 448

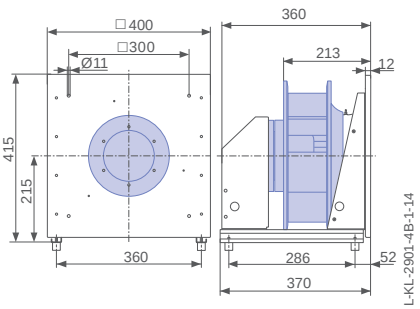
Dimensions [mm]

Free-running motor impeller RH
in installation position H/Vu/Vo

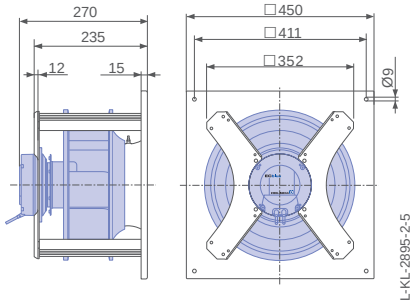


*=max. depth of screw

Plug fan ER in installation position H



Ventilation unit GR in installation position H

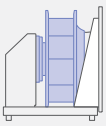
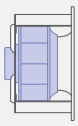
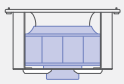


Performance data

Type	Characteristic curve	Speed n [min^{-1}]	Operating point	Current I [A]	Motor input power P_{sys} [W]	Suction side sound power level L_{WA5} [dB]
__31C-6IK.BF.CR	I	2020	①	1.00	210	75
		2020	②	2.20	480	72
		2020	③	1.50	320	76
	II	1880	④	0.82	170	73
		1880	⑤	1.75	380	70
		1880	⑥	1.20	260	74
	III	1700	⑦	0.64	130	70
		1700	⑧	1.35	280	68
		1700	⑨	0.94	190	71
	IV	1500	⑩	0.48	95	67
		1500	⑪	0.94	200	65
		1500	⑫	0.68	140	68
	V	1300	⑬	0.36	65	63
		1300	⑭	0.66	130	61
		1300	⑮	0.48	95	64

Current values determined at 230V

Fan ordering information

Design	RH*	ER**	GR**	GR**	GR**
Installation position	H/Vu/Vo	H	H	Vo	Vu
					
Type	**RH31C-6IK.BF.CR**	**ER31C-6IK.BF.CR**	**GR31C-6IK.BF.CR**	**GR31C-6IK.BF.CR**	**GR31C-6IK.BF.CR**
Basic electronics					
Article no.	**114476**	**114576/A01**	**114528/H01**	**114528/O01**	**114528/U01**
Weight [kg]	6.30	14.00	13.00	13.00	13.00

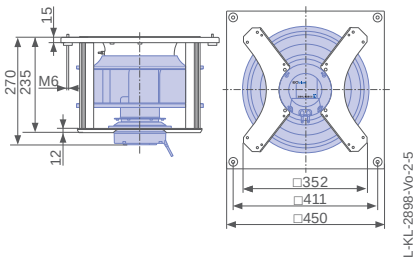
* Inlet ring not included

** Inlet ring integrated

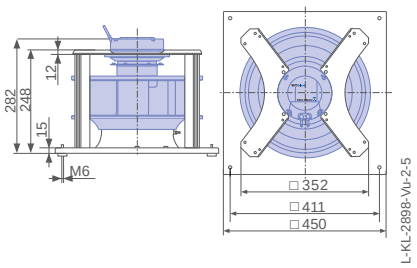
Control technology

Control module	Operating terminal	Expansion module
		
Page 464	Page 476	Page 473

Ventilation unit GR in installation position Vo



Ventilation unit GR in installation position Vu



C p r o - E C b l u e

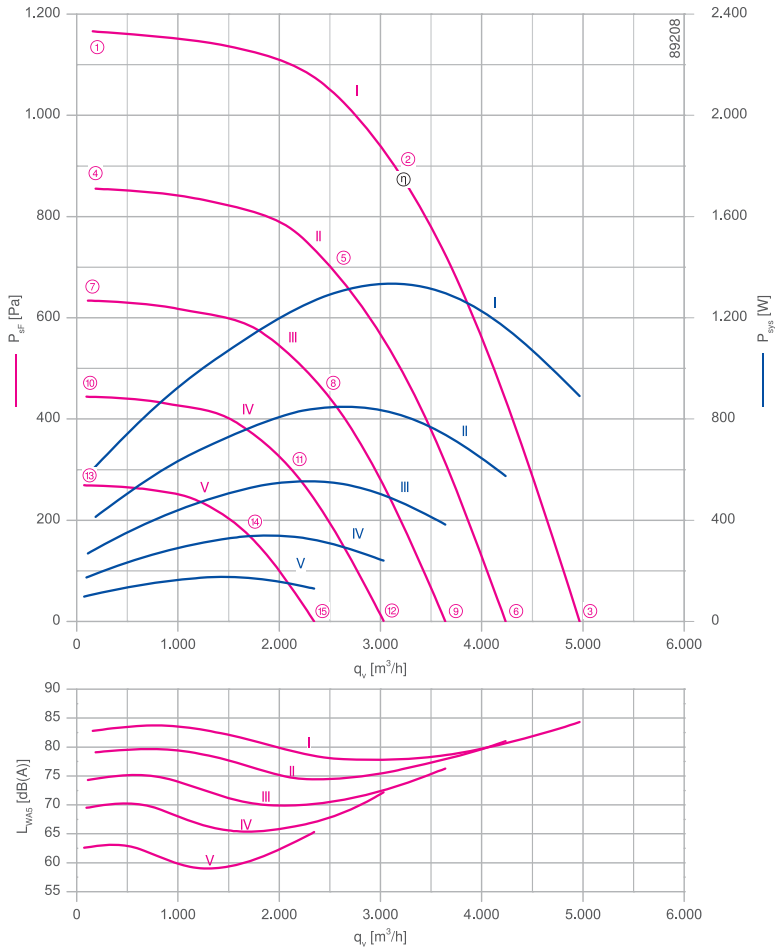
for single phase alternating current, 200-277 V

R H 3 1 C - Z I D

Description

Motor technology: EC
Rated voltage U: **1~200-277 V***
Rated frequency f: **50/60 Hz***
Motor input power P: **1.35 kW***
Rated current I: **6.70-4.80 A***
Rated speed n: **2920 min^{-1}***
Thermal class: **THCL155***
Min. permitted ambient temperature t_R: -20 °C
Max. permitted ambient temperature t_R at n_{max}: 45 °C
Electrical connection: integrated Controller
Number of blades : 7
Balancing quality: G 6.3
Protection class: IP54
Motor protection: Integrated active temperature management
Impeller : ZAmid, uncoated, Ultramarine blue
Conformity: ErP 2015, CE
ErP-data
Efficiency η_{statA}: 65.0 %
Efficiency: N_{actual} = 74.2 / N_{target} = 62**
EC controller integrated
*Rated data
**ErP 2015

Characteristic curve

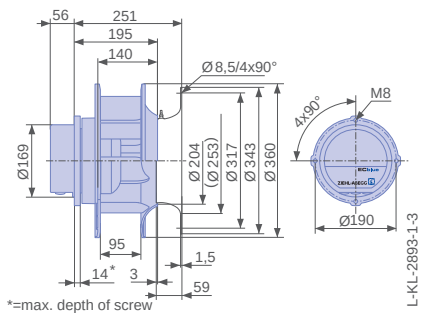


measured with inlet ring, without guard grille according to ISO 5801

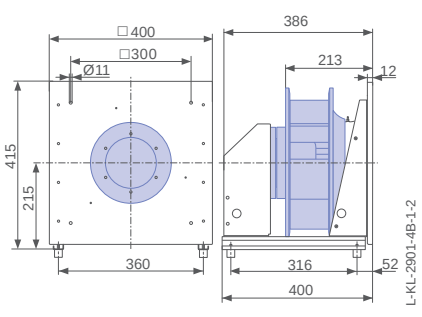
Inlet ring	00401506	Page 450
Connection diagram	1360-401	Page 548
Rubber dampers	30x30 / 40	Page 454
Sping vibration dampers	MSN 4	Page 454
System components		Page 448

Dimensions [mm]

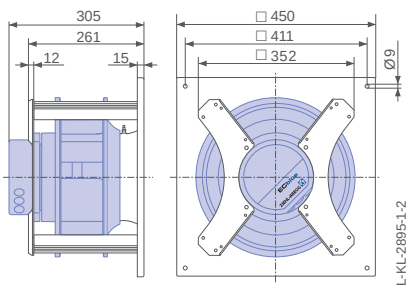
Free-running motor impeller RH
in installation position H/Vu/Vo



Plug fan ER in installation position H



Ventilation unit GR in installation position H

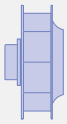
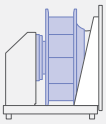
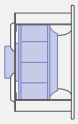
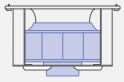


Performance data

Type	Characteristic curve	Speed n [min⁻¹]	Operating point	Current I [A]	Motor input power P_{sys} [W]	Suction side sound power level L_{WA5} [dB]	Maximum ambient temperature t_R [°C]
__31C-ZID.DC.CR	I	2920	①	2.70	600	83	45
		2920	②	5.80	1350	78	
		2920	③	3.90	900	84	
	II	2500	④	1.90	420	79	60
		2500	⑤	3.70	840	75	
		2500	⑥	2.60	580	81	
	III	2150	⑦	1.25	270	74	
		2150	⑧	2.50	560	70	
		2150	⑨	1.80	380	76	
	IV	1800	⑩	0.82	170	70	
		1800	⑪	1.55	340	65	
		1800	⑫	1.10	240	72	
	V	1400	⑬	0.50	100	63	
		1400	⑭	0.82	170	60	
		1400	⑮	0.62	130	65	

Current values determined at 230V

Fan ordering information

Design	RH*	ER**	GR**	GR**	GR**
Installation position	H/Vu/Vo	H	H	Vo	Vu
					
Type	**RH31C-ZID.DC.CR**	**ER31C-ZID.DC.CR**	**GR31C-ZID.DC.CR**	**GR31C-ZID.DC.CR**	**GR31C-ZID.DC.CR**
Basic electronics					
Article no.	**114484**	**114581/A01**	**114533/H01**	**114533/O01**	**114533/U01**
Premium electronics					
Article no.	**114485**				
Weight [kg]	10.00	17.00	16.00	16.00	16.00

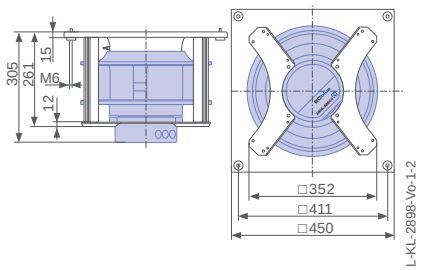
* Inlet ring not included

** Inlet ring integrated

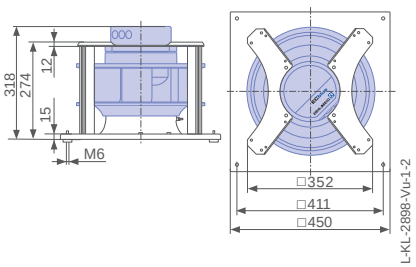
Control technology

Control module	Operating terminal	Expansion module
		
Page 464	Page 476	Page 473

Ventilation unit GR in installation position Vo



Ventilation unit GR in installation position Vu



C p r o - E C b l u e

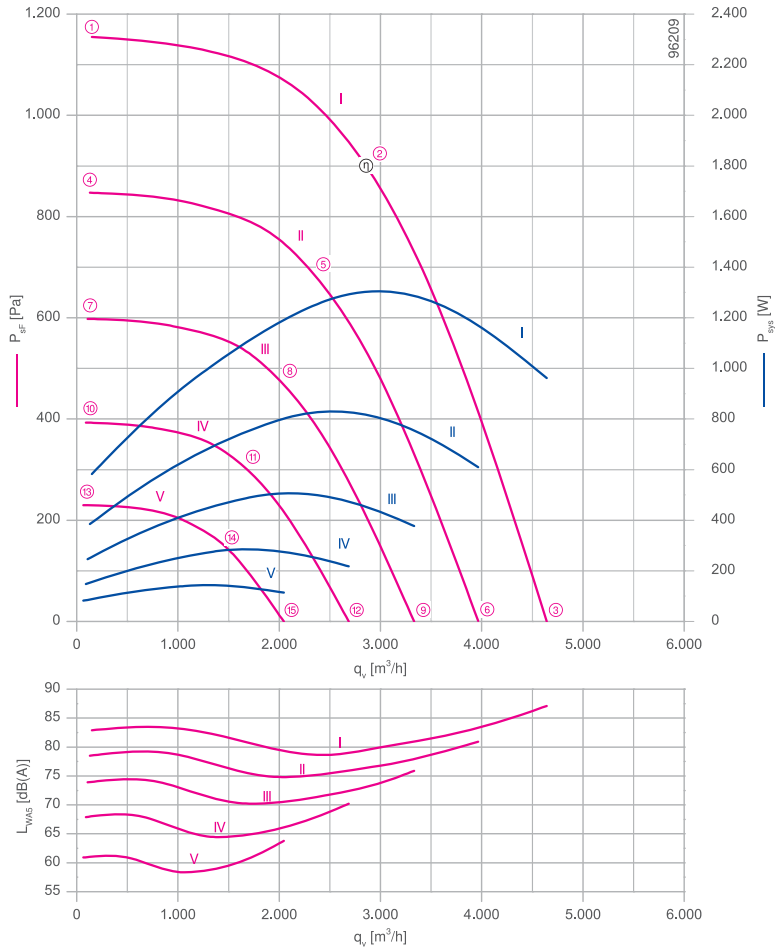
for single phase alternating current, 200-277 V

R H 3 1 C - Z I K

Description

Motor technology: EC
Rated voltage U: **1~200-277 V***
Rated frequency f: **50/60 Hz***
Motor input power P: **1.30 kW***
Rated current I: **6.60-4.80 A***
Rated speed n: **2920 min^{-1}***
Thermal class: **THCL155***
Min. permitted ambient temperature t_R: -20 °C
Max. permitted ambient temperature t_R at n_{max}: 45 °C
Electrical connection: integrated Controller
Number of blades : 7
Balancing quality: G 6.3
Protection class: IP54
Motor protection: Integrated active temperature management
Impeller : ZAmid, uncoated, Ultramarine blue
Conformity: ErP 2015, CE
ErP-data
Efficiency η_{statA}: 60.7 %
Efficiency: N_{actual} = 70.0 / N_{target} = 62**
EC controller integrated
*Rated data
**ErP 2015

Characteristic curve

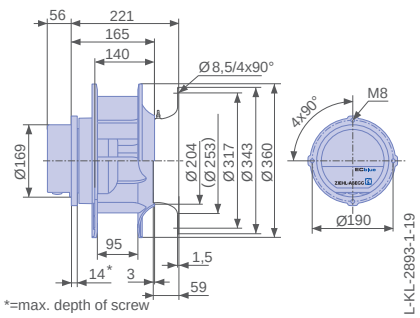


measured with inlet ring, without guard grille according to ISO 5801

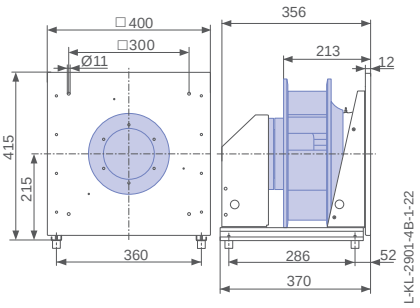
Inlet ring	00401506	Page 450
Connection diagram	1360-401	Page 548
Rubber dampers	30x30 / 40	Page 454
Spring vibration dampers	MSN 4	Page 454
System components		Page 448

Dimensions [mm]

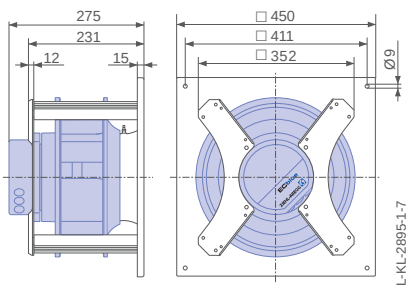
Free-running motor impeller RH
in installation position H/Vu/Vo



Plug fan ER in installation position H



Ventilation unit GR in installation position H

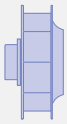
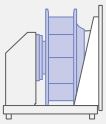
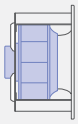
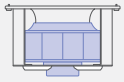


Performance data

Type	Characteristic curve	Speed n [min⁻¹]	Operating point	Current I [A]	Motor input power P_{sys} [W]	Suction side sound power level L_{WA5} [dB]	Maximum ambient temperature t_R [°C]
__31C-ZIK.DC.CR	I	2920	①	2.70	580	83	45
		2920	②	5.80	1300	80	
		2920	③	4.20	960	87	
	II	2500	④	1.80	390	79	60
		2500	⑤	3.70	820	76	
		2500	⑥	2.80	600	81	
	III	2100	⑦	1.15	250	74	
		2100	⑧	2.40	500	71	
		2100	⑨	1.75	380	76	
	IV	1700	⑩	0.70	150	68	
		1700	⑪	1.35	280	65	
		1700	⑫	1.00	220	70	
	V	1300	⑬	0.44	80	61	
		1300	⑭	0.68	140	59	
		1300	⑮	0.56	110	64	

Current values determined at 230V

Fan ordering information

Design	RH*	ER**	GR**	GR**	GR**
Installation position	H/Vu/Vo	H	H	Vo	Vu
					
Type	**RH31C-ZIK.DC.CR**	**ER31C-ZIK.DC.CR**	**GR31C-ZIK.DC.CR**	**GR31C-ZIK.DC.CR**	**GR31C-ZIK.DC.CR**
Basic electronics					
Article no.	**114478**	**114578/A01**	**114530/H01**	**114530/O01**	**114530/U01**
Premium electronics					
Article no.	**114479**				
Weight [kg]	10.00	17.00	16.00	16.00	16.00

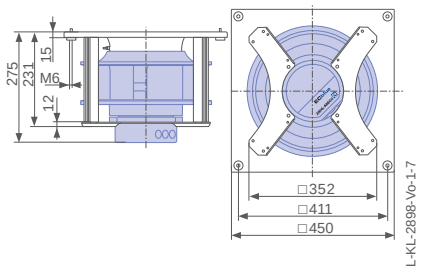
* Inlet ring not included

** Inlet ring integrated

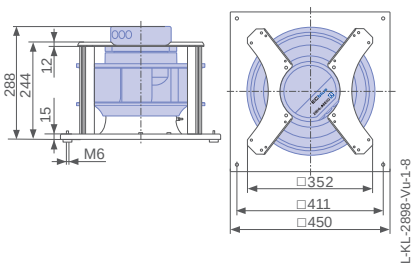
Control technology

Control module	Operating terminal	Expansion module
		
Page 464	Page 476	Page 473

Ventilation unit GR in installation position Vo



Ventilation unit GR in installation position Vu



C p r o - E C b l u e

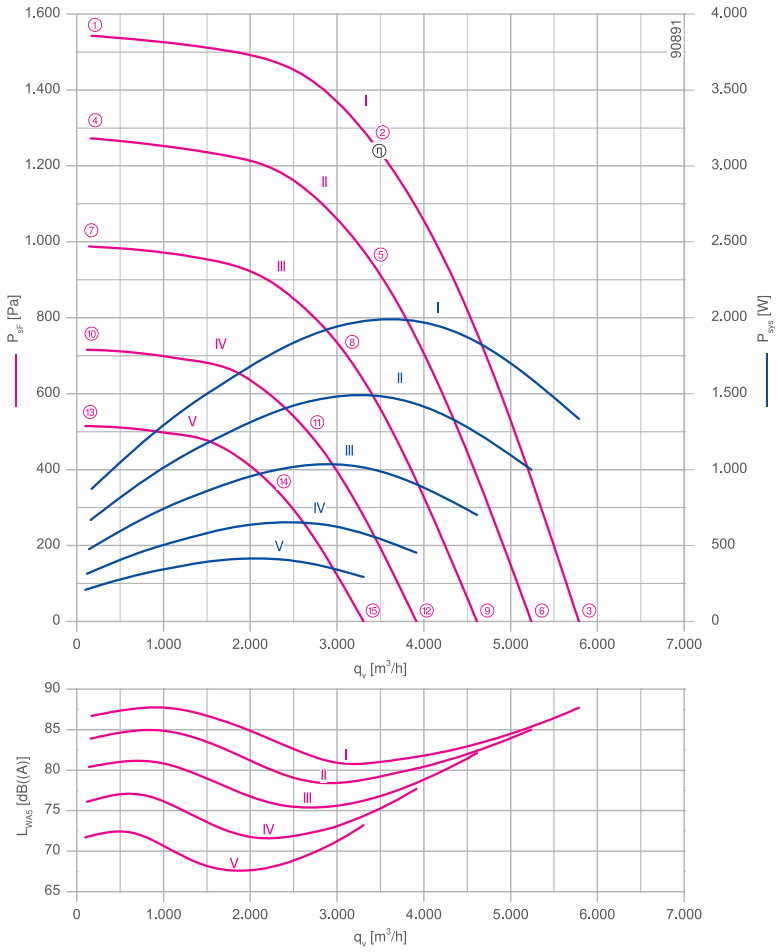
for three phase alternating current, 200-240 V

R H 3 1 C - Z I D

Description

Motor technology: EC
Rated voltage U: **3~200-240 V***
Rated frequency f: **50/60 Hz***
Motor input power P: **2.00 kW***
Rated current I: **6.00-5.00 A***
Rated speed n: **3370 min^{-1}***
Thermal class: **THCL155***
Min. permitted ambient temperature t_R: -20 °C
Max. permitted ambient temperature t_R at n_{max}: 55 °C
Electrical connection: integrated Controller
Number of blades : 7
Balancing quality: G 6.3
Protection class: IP54
Motor protection: Integrated active temperature management
Impeller : ZAmid, uncoated, Ultramarine blue
Conformity: ErP 2015, CE
ErP-data
Efficiency η_{statA}: 66.1 %
Efficiency: N_{actual} = 73.5 / N_{target} = 62**
EC controller integrated
*Rated data
**ErP 2015

Characteristic curve

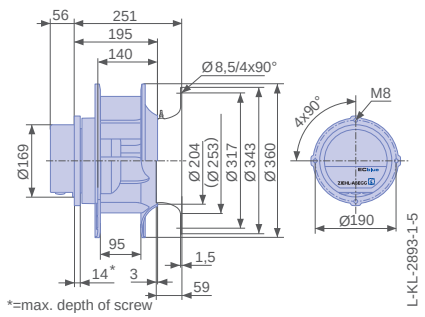


measured with inlet ring, without guard grille according to ISO 5801

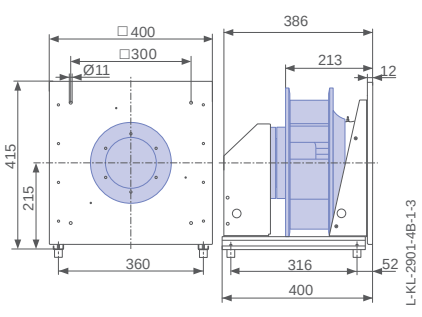
Inlet ring	00401506	Page 450
Connection diagram	1360-401	Page 548
Rubber dampers	30x30 / 40	Page 454
Spring vibration dampers	MSN 4	Page 454
System components		Page 448

Dimensions [mm]

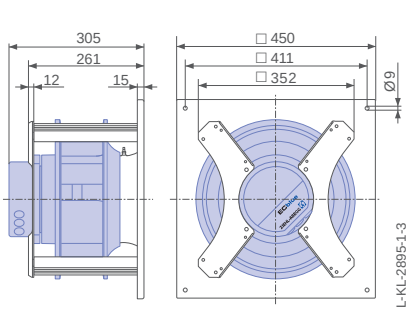
Free-running motor impeller RH
in installation position H/Vu/Vo



Plug fan ER in installation position H



Ventilation unit GR in installation position H

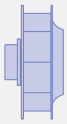
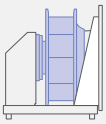
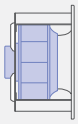
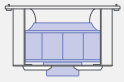


Performance data

Type	Characteristic curve	Speed n [min⁻¹]	Operating point	Current I [A]	Motor input power P_{sys} [W]	Suction side sound power level L_{WA5} [dB]	Maximum ambient temperature t_R [°C]
__31C-ZID.DC.CR	I	3370	①	2.30	880	87	55
		3370	②	5.20	2000	81	
		3370	③	3.50	1350	88	
	II	3060	④	1.80	660	84	60
		3060	⑤	3.90	1500	79	
		3060	⑥	2.60	1000	85	
	III	2700	⑦	1.30	480	80	
		2700	⑧	2.70	1050	76	
		2700	⑨	1.90	700	82	
	IV	2300	⑩	0.90	310	76	
		2300	⑪	1.75	660	72	
		2300	⑫	1.25	460	78	
	V	1950	⑬	0.64	210	72	
		1950	⑭	1.15	420	68	
		1950	⑮	0.84	290	73	

Current values determined at 230V

Fan ordering information

Design	RH*	ER**	GR**	GR**	GR**
Installation position	H/Vu/Vo	H	H	Vo	Vu
					
Type	**RH31C-ZID.DC.CR**	**ER31C-ZID.DC.CR**	**GR31C-ZID.DC.CR**	**GR31C-ZID.DC.CR**	**GR31C-ZID.DC.CR**
Basic electronics					
Article no.	**114486**	**114582/A01**	**114534/H01**	**114534/O01**	**114534/U01**
Premium electronics					
Article no.	**114487**				
Weight [kg]	10.00	17.00	16.00	16.00	16.00

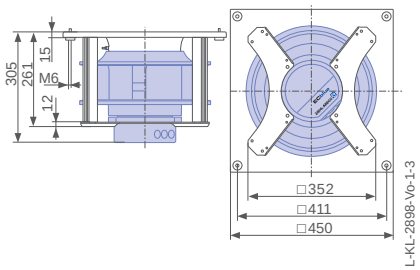
* Inlet ring not included

** Inlet ring integrated

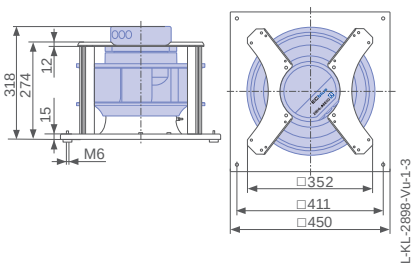
Control technology

Control module	Operating terminal	Expansion module
		
Page 464	Page 476	Page 473

Ventilation unit GR in installation position Vo



Ventilation unit GR in installation position Vu

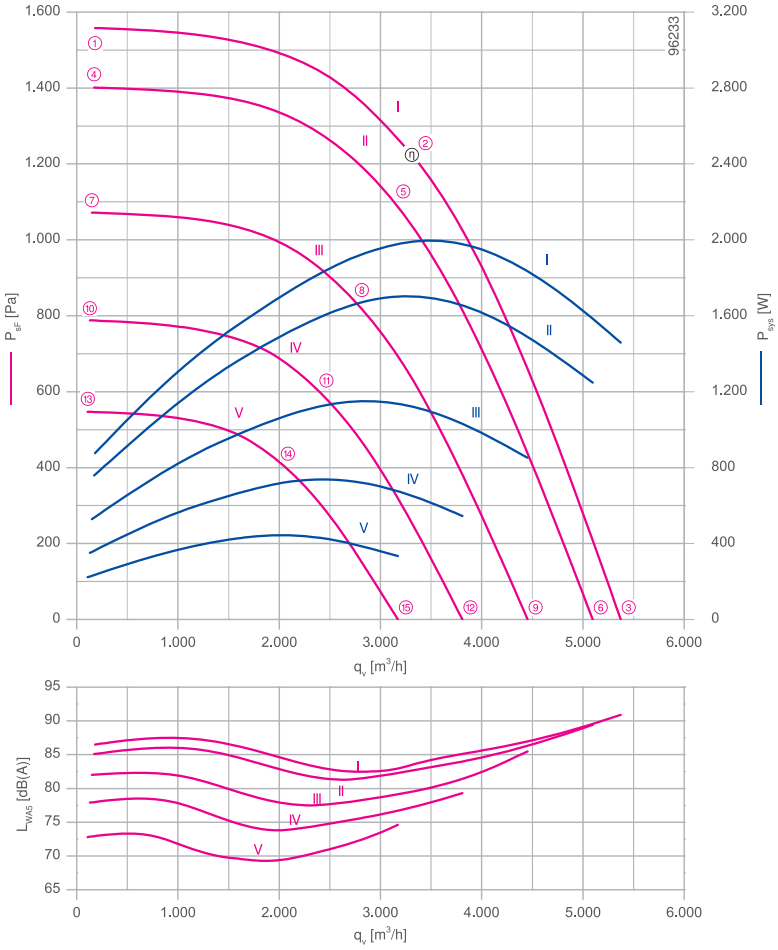


C p r o - E C b l u e

for three phase alternating current, 200-240 V

R H 3 1 C - Z I K

Characteristic curve



measured with inlet ring, without guard grille according to ISO 5801

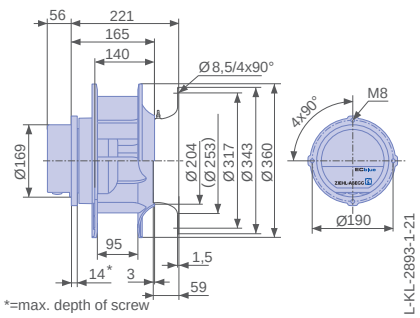
Description

Motor technology: EC
Rated voltage U: **3~200-240 V***
Rated frequency f: **50/60 Hz***
Motor input power P: **2.00 kW***
Rated current I: **6.00-5.00 A***
Rated speed n: **3370 min^{-1}***
Thermal class: **THCL155***
Min. permitted ambient temperature t_R: -20 °C
Max. permitted ambient temperature t_R at n_{max}: 55 °C
Electrical connection: integrated Controller
Number of blades : 7
Balancing quality: G 6.3
Protection class: IP54
Motor protection: Integrated active temperature management
Impeller : ZAmid, uncoated, Ultramarine blue
Conformity: ErP 2015, CE
ErP-data
Efficiency η_{statA}: 61.9 %
Efficiency: N_{actual} = 69.3 / N_{target} = 62**
EC controller integrated
*Rated data
**ErP 2015

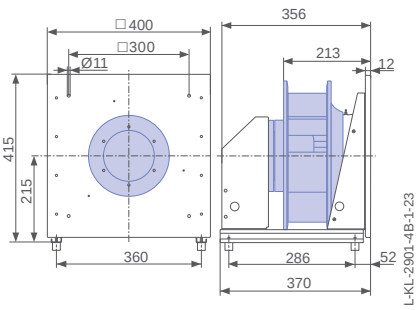
Inlet ring	00401506	Page 450
Connection diagram	1360-401	Page 548
Rubber dampers	30x30 / 40	Page 454
Spring vibration dampers	MSN 4	Page 454
System components		Page 448

Dimensions [mm]

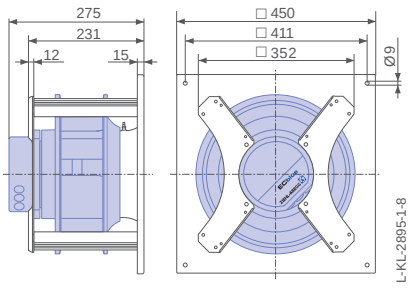
Free-running motor impeller RH
in installation position H/Vu/Vo



Plug fan ER in installation position H



Ventilation unit GR in installation position H

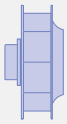
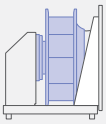
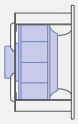
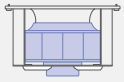


Performance data

Type	Characteristic curve	Speed n [min⁻¹]	Operating point	Current I [A]	Motor input power P_{sys} [W]	Suction side sound power level L_{WA5} [dB]	Maximum ambient temperature t_R [°C]
__31C-ZIK.DC.CR	I	3370	①	2.30	880	87	55
		3370	②	5.20	2000	84	
		3370	③	3.80	1450	91	
	II	3200	④	2.00	760	85	60
		3200	⑤	4.40	1700	82	
		3200	⑥	3.30	1250	89	
	III	2800	⑦	1.45	520	82	
		2800	⑧	3.00	1150	78	
		2800	⑨	2.30	860	86	
	IV	2400	⑩	0.98	350	78	
		2400	⑪	1.95	740	74	
		2400	⑫	1.45	540	79	
	V	2000	⑬	0.68	220	73	
		2000	⑭	1.20	440	69	
		2000	⑮	0.94	330	75	

Current values determined at 230V

Fan ordering information

Design	RH*	ER**	GR**	GR**	GR**
Installation position	H/Vu/Vo	H	H	Vo	Vu
					
Type	**RH31C-ZIK.DC.CR**	**ER31C-ZIK.DC.CR**	**GR31C-ZIK.DC.CR**	**GR31C-ZIK.DC.CR**	**GR31C-ZIK.DC.CR**
Basic electronics					
Article no.	**114480**	**114579/A01**	**114531/H01**	**114531/O01**	**114531/U01**
Premium electronics					
Article no.	**114481**				
Weight [kg]	10.00	17.00	16.00	16.00	16.00

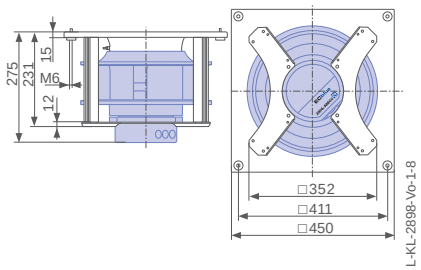
* Inlet ring not included

** Inlet ring integrated

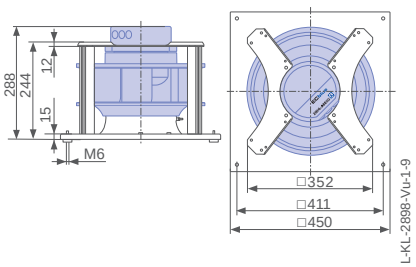
Control technology

Control module	Operating terminal	Expansion module
		
Page 464	Page 476	Page 473

Ventilation unit GR in installation position Vo



Ventilation unit GR in installation position Vu



C p r o - E C b l u e

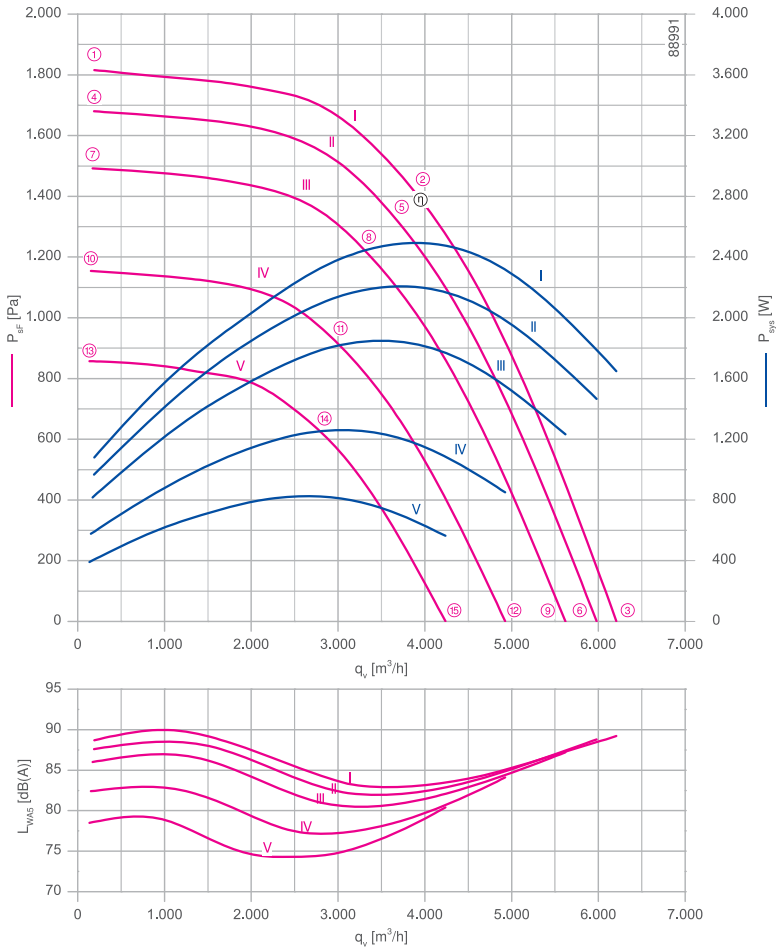
for three phase alternating current, 380-480 V

R H 3 1 C - Z I D

Description

Motor technology: EC
Rated voltage U: **3~380-480 V***
Rated frequency f: **50/60 Hz***
Motor input power P: **2.50 kW***
Rated current I: **4.00-3.20 A***
Rated speed n: **3640 min^{-1}***
Thermal class: **THCL155***
Min. permitted ambient temperature t_R: -20 °C
Max. permitted ambient temperature t_R at n_{max}: 55 °C
Electrical connection: integrated Controller
Number of blades : 7
Balancing quality: G 6.3
Protection class: IP54
Motor protection: Integrated active temperature management
Impeller : ZAmid, uncoated, Ultramarine blue
Conformity: ErP 2015, CE
ErP-data
Efficiency η_{statA}: 66.5 %
Efficiency: N_{actual} = 72.9 / N_{target} = 62**
EC controller integrated
*Rated data
**ErP 2015

Characteristic curve

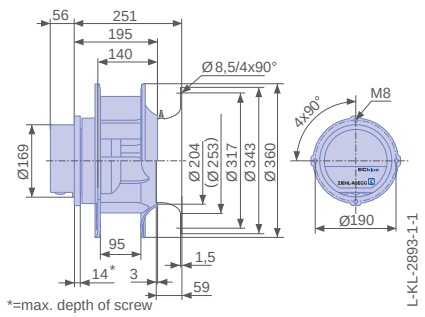


measured with inlet ring, without guard grille according to ISO 5801

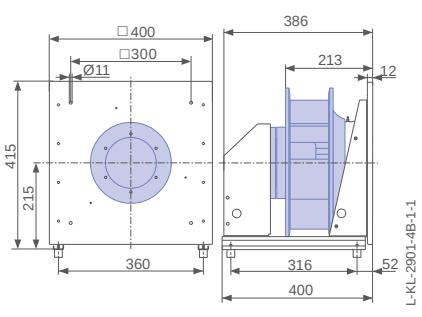
Inlet ring	00401506	Page 450
Connection diagram	1360-401	Page 548
Rubber dampers	30x30 / 40	Page 454
Spring vibration dampers	MSN 4	Page 454
System components		Page 448

Dimensions [mm]

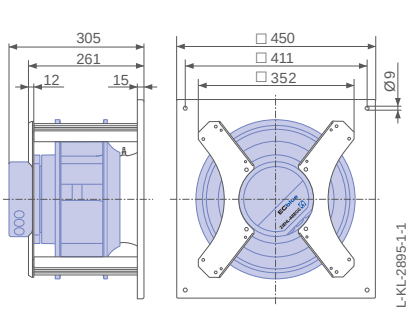
Free-running motor impeller RH
in installation position H/Vu/Vo



Plug fan ER in installation position H



Ventilation unit GR in installation position H

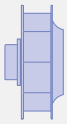
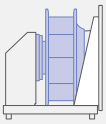
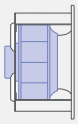
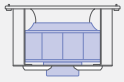


Performance data

Type	Characteristic curve	Speed n [min⁻¹]	Operating point	Current I [A]	Motor input power P_{sys} [W]	Suction side sound power level L_{WA5} [dB]	Maximum ambient temperature t_R [°C]
__31C-ZID.DC.CR	I	3640	①	1.70	1100	89	55
		3640	②	3.80	2500	83	
		3640	③	2.50	1650	89	
	II	3500	④	1.55	960	88	60
		3500	⑤	3.40	2200	82	
		3500	⑥	2.30	1450	89	
	III	3300	⑦	1.35	820	86	
		3300	⑧	2.90	1850	81	
		3300	⑨	1.95	1250	87	
	IV	2900	⑩	1.00	580	82	
		2900	⑪	2.00	1250	77	
		2900	⑫	1.40	860	84	
	V	2500	⑬	0.76	390	79	
		2500	⑭	1.35	820	75	
		2500	⑮	0.98	560	80	

Current values determined at 400V

Fan ordering information

Design	RH*	ER**	GR**	GR**	GR**
Installation position	H/Vu/Vo	H	H	Vo	Vu
					
Type	**RH31C-ZID.DC.CR**	**ER31C-ZID.DC.CR**	**GR31C-ZID.DC.CR**	**GR31C-ZID.DC.CR**	**GR31C-ZID.DC.CR**
Basic electronics					
Article no.	**114488**	**114583/A01**	**114535/H01**	**114535/O01**	**114535/U01**
Weight [kg]	10.00	17.00	16.00	16.00	16.00

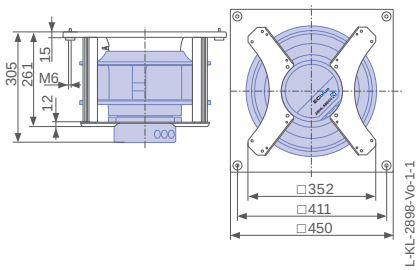
* Inlet ring not included

** Inlet ring integrated

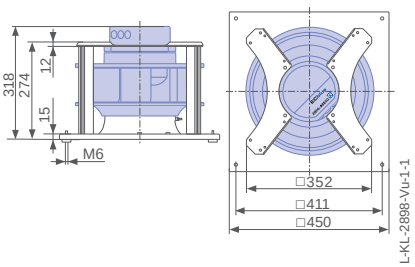
Control technology

Control module	Operating terminal	Expansion module
		
Page 464	Page 476	Page 473

Ventilation unit GR in installation position Vo



Ventilation unit GR in installation position Vu



C p r o - E C b l u e

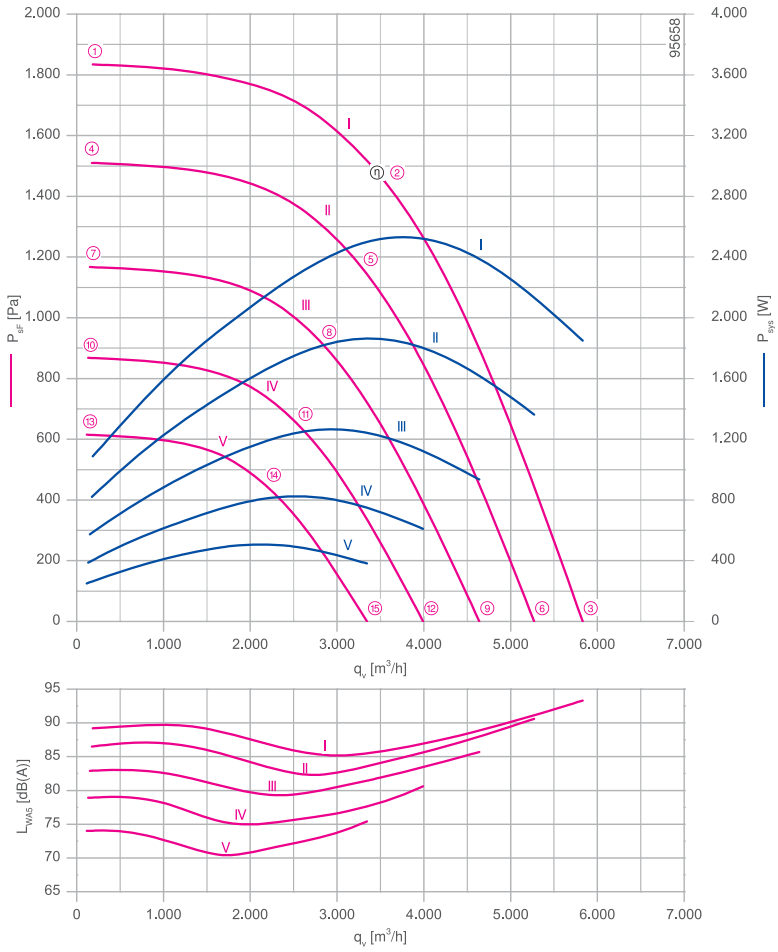
for three phase alternating current, 380-480 V

R H 3 1 C - Z I K

Description

Motor technology: EC
Rated voltage U: **3~380-480 V***
Rated frequency f: **50/60 Hz***
Motor input power P: **2.50 kW***
Rated current I: **4.00-3.20 A***
Rated speed n: **3640 min^{-1}***
Thermal class: **THCL155***
Min. permitted ambient temperature t_R: -20 °C
Max. permitted ambient temperature t_R at n_{max}: 60 °C
Electrical connection: integrated Controller
Number of blades : 7
Balancing quality: G 6.3
Protection class: IP54
Motor protection: Integrated active temperature management
Impeller : ZAmid, uncoated, Ultramarine blue
Conformity: ErP 2015, CE
ErP-data
Efficiency η_{statA}: 61.5 %
Efficiency: N_{actual} = 67.8 / N_{target} = 62**
EC controller integrated
*Rated data
**ErP 2015

Characteristic curve

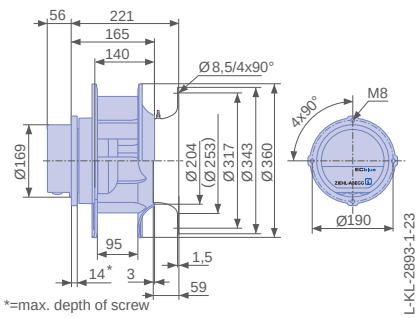


measured with inlet ring, without guard grille according to ISO 5801

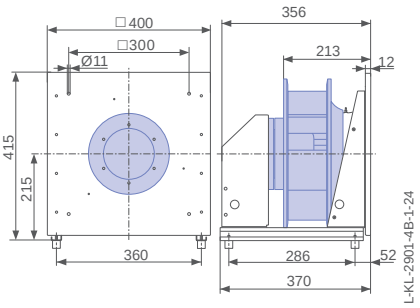
Inlet ring	00401506	Page 450
Connection diagram	1360-401	Page 548
Rubber dampers	30x30 / 40	Page 454
Spring vibration dampers	MSN 4	Page 454
System components		Page 448

Dimensions [mm]

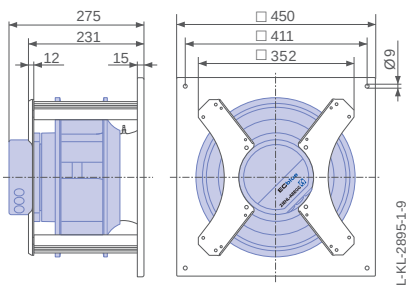
Free-running motor impeller RH
in installation position H/Vu/Vo



Plug fan ER in installation position H



Ventilation unit GR in installation position H

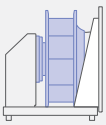
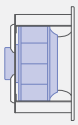
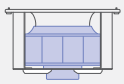


Performance data

Type	Characteristic curve	Speed n [min^{-1}]	Operating point	Current I [A]	Motor input power P_{sys} [W]	Suction side sound power level L_{WA5} [dB]
__31C-ZIK.DC.CR	I	3640	①	1.75	1100	89
		3640	②	3.90	2500	87
		3640	③	2.90	1850	93
	II	3300	④	1.35	820	87
		3300	⑤	2.90	1850	83
		3300	⑥	2.10	1350	91
	III	2900	⑦	1.00	580	83
		2900	⑧	2.00	1250	80
		2900	⑨	1.50	940	86
	IV	2500	⑩	0.78	390	79
		2500	⑪	1.35	820	76
		2500	⑫	1.05	620	81
	V	2100	⑬	0.56	250	74
		2100	⑭	0.92	500	71
		2100	⑮	0.76	380	75

Current values determined at 400V

Fan ordering information

Design	RH*	ER**	GR**	GR**	GR**
Installation position	H/Vu/Vo	H	H	Vo	Vu
					
Type	**RH31C-ZIK.DC.CR**	**ER31C-ZIK.DC.CR**	**GR31C-ZIK.DC.CR**	**GR31C-ZIK.DC.CR**	**GR31C-ZIK.DC.CR**
Basic electronics					
Article no.	**114482**	**114580/A01**	**114532/H01**	**114532/O01**	**114532/U01**
Premium electronics					
Article no.	**114483**				
Weight [kg]	10.00	17.00	16.00	16.00	16.00

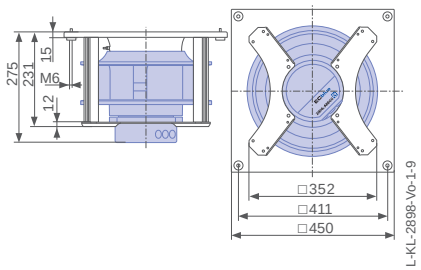
* Inlet ring not included

** Inlet ring integrated

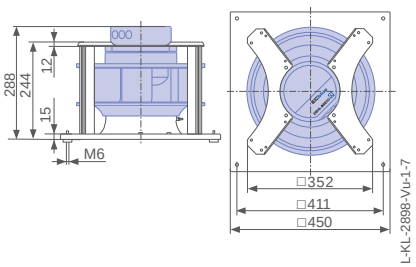
Control technology

Control module	Operating terminal	Expansion module
		
Page 464	Page 476	Page 473

Ventilation unit GR in installation position Vo



Ventilation unit GR in installation position Vu



C p r o - E C b l u e

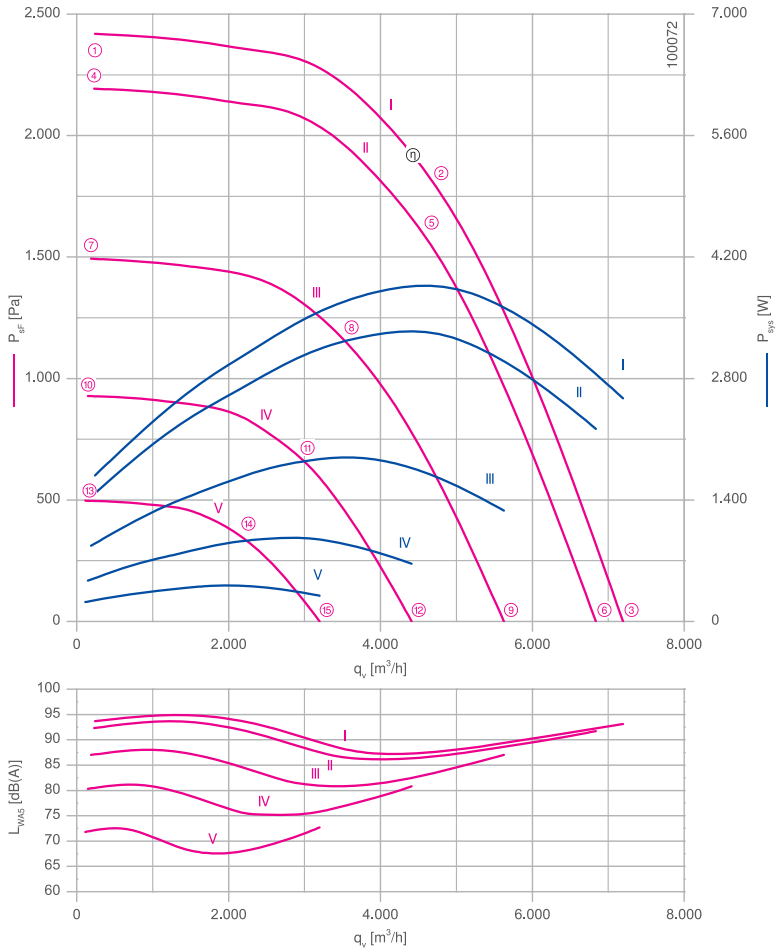
for three phase alternating current, 380-480 V

R H 3 1 C - Z I D

Description

Motor technology: EC
Rated voltage U: **3~380-480 V***
Rated frequency f: **50/60 Hz***
Motor input power P: **3.90 kW***
Rated current I: **6.20-5.00 A***
Rated speed n: **4200 min^{-1}***
Thermal class: **THCL155***
Min. permitted ambient temperature t_R: -20 °C
Max. permitted ambient temperature t_R at n_{max}: 40 °C
Electrical connection: integrated Controller
Number of blades : 7
Balancing quality: G 6.3
Protection class: IP54
Motor protection: Integrated active temperature management
Impeller : ZAmid, uncoated, Ultramarine blue
Conformity: ErP 2015, CE
ErP-data
Efficiency η_{statA}: 65.6 %
Efficiency: N_{actual} = 69.9 / N_{target} = 62**
EC controller integrated
*Rated data
**ErP 2015

Characteristic curve

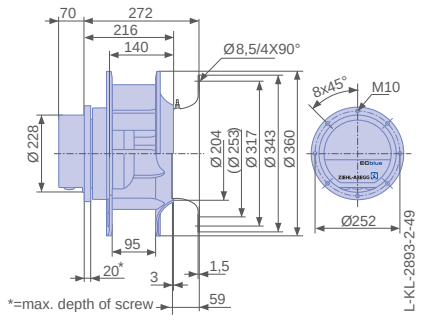


measured with inlet ring, without guard grille according to ISO 5801

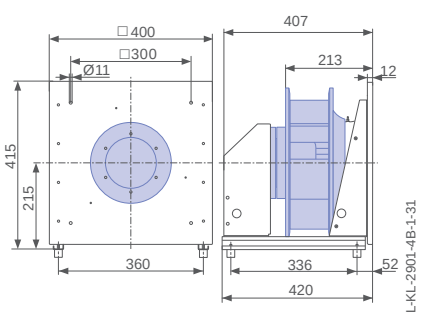
Inlet ring	00401504	Page 450
Connection diagram	1360-401	Page 548
Rubber dampers	30x30 / 40	Page 454
Spring vibration dampers	MSN 4	Page 454
System components		Page 448

Dimensions [mm]

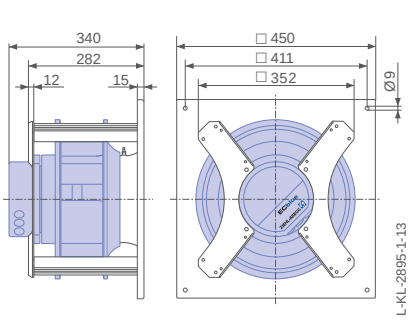
Free-running motor impeller RH
in installation position H/Vu/Vo



Plug fan ER in installation position H



Ventilation unit GR in installation position H

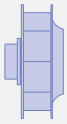
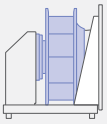
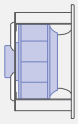
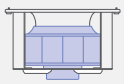


Performance data

Type	Characteristic curve	Speed n [min^{-1}]	Operating point	Current I [A]	Motor input power P_{sys} [W]	Suction side sound power level L_{WA5} [dB]	Maximum ambient temperature t_R [°C]
__31C-ZID.DG.CR	I	4200	①	2.60	1700	94	40
		4200	②	5.80	3900	88	
		4200	③	3.90	2600	93	
	II	4000	④	2.30	1450	92	60
		4000	⑤	5.20	3300	87	
		4000	⑥	3.40	2200	92	
	III	3290	⑦	1.45	880	87	
		3290	⑧	2.90	1900	81	
		3290	⑨	2.10	1300	87	
	IV	2600	⑩	0.94	480	80	
		2600	⑪	1.60	960	75	
		2600	⑫	1.20	660	81	
	V	1900	⑬	0.58	220	72	
		1900	⑭	0.86	420	68	
		1900	⑮	0.70	300	73	

Current values determined at 400V

Fan ordering information

Design	RH*	ER**	GR**	GR**	GR**
Installation position	H/Vu/Vo	H	H	Vo	Vu
					
Type	**RH31C-ZID.DG.CR**	**ER31C-ZID.DG.CR**	**GR31C-ZID.DG.CR**	**GR31C-ZID.DG.CR**	**GR31C-ZID.DC.CR**
Basic electronics					
Article no.	**114866**	**114894/A01**	**114914/H01**	**114914/O01**	**114914/U01**
Weight [kg]	13.00	21.00	19.00	20.00	20.00

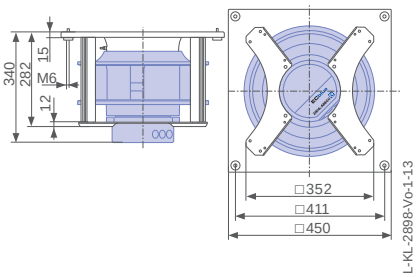
* Inlet ring not included

** Inlet ring integrated

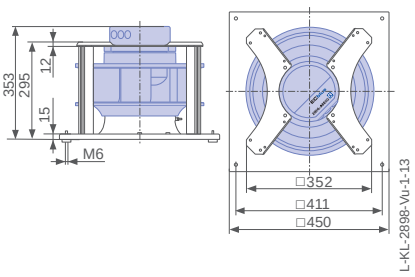
Control technology

Control module	Operating terminal	Expansion module
		
Page 464	Page 476	Page 473

Ventilation unit GR in installation position Vo



Ventilation unit GR in installation position Vu



C p r o - E C b l u e

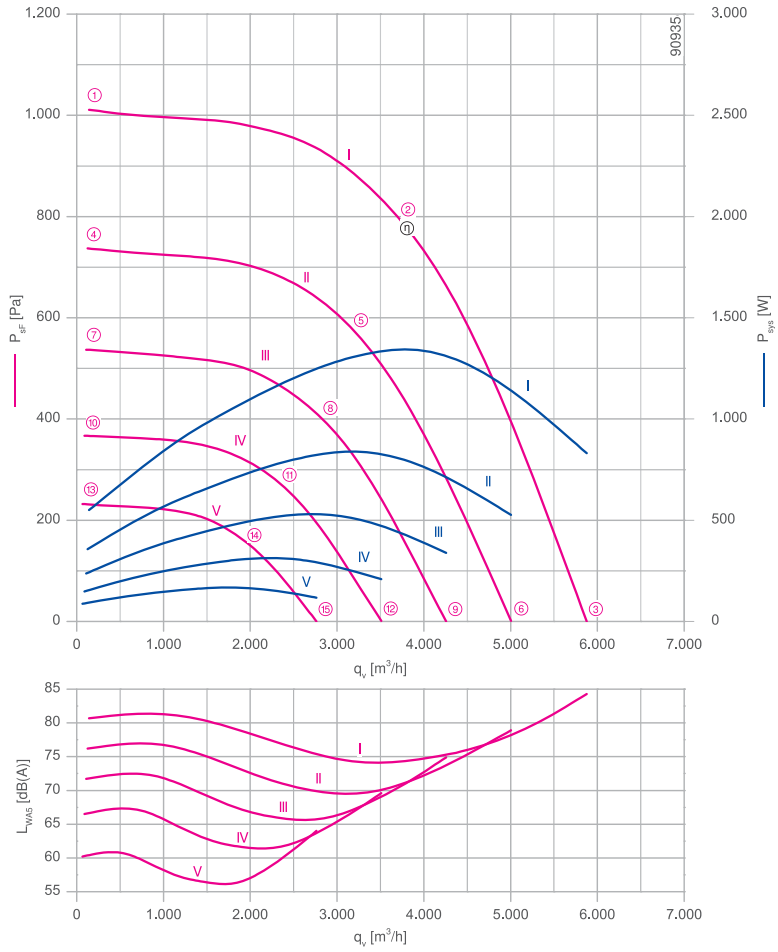
for single phase alternating current, 200-277 V

R H 3 5 C - Z I D

Description

Motor technology: EC
Rated voltage U: **1~200-277 V***
Rated frequency f: **50/60 Hz***
Motor input power P: **1.35 kW***
Rated current I: **6.80-4.90 A***
Rated speed n: **2400 min^{-1}***
Thermal class: **THCL155***
Min. permitted ambient temperature t_R: -20 °C
Max. permitted ambient temperature t_R at n_{max}: 45 °C
Electrical connection: integrated Controller
Number of blades : 7
Balancing quality: G 6.3
Protection class: IP54
Motor protection: Integrated active temperature management
Impeller : ZAmid, uncoated, Ultramarine blue
Conformity: ErP 2015, CE
ErP-data
Efficiency η_{statA}: 67.5 %
Efficiency: N_{actual} = 76.7 / N_{target} = 62**
EC controller integrated
*Rated data
**ErP 2015

Characteristic curve

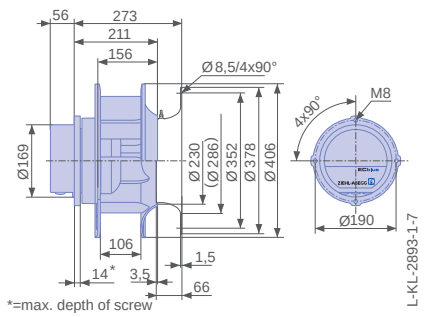


measured with inlet ring, without guard grille according to ISO 5801

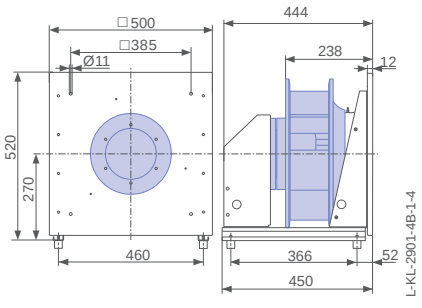
Inlet ring	00401296	Page 450
Connection diagram	1360-401	Page 548
Rubber damper	30x30 / 40	Page 454
Spring vibration damper	MSN 4	Page 454
System components		Page 448

Dimensions [mm]

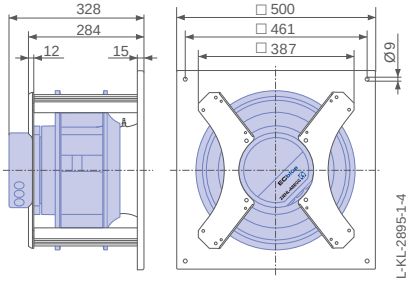
Free-running motor impeller RH
in installation position H/Vu/Vo



Plug fan ER in installation position H



Ventilation unit GR in installation position H

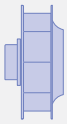
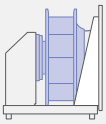
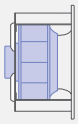
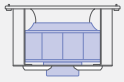


Performance data

Type	Characteristic curve	Speed n [min⁻¹]	Operating point	Current I [A]	Motor input power P_{sys} [W]	Suction side sound power level L_{WA5} [dB]	Maximum ambient temperature t_R [°C]
__35C-ZID.DC.CR	I	2400	①	2.50	540	81	45
		2400	②	6.00	1350	74	
		2400	③	3.70	840	84	
	II	2050	④	1.70	360	76	60
		2050	⑤	3.80	840	70	
		2050	⑥	2.40	520	79	
	III	1750	⑦	1.10	240	72	
		1750	⑧	2.50	540	66	
		1750	⑨	1.60	340	75	
	IV	1450	⑩	0.70	150	67	
		1450	⑪	1.50	310	62	
		1450	⑫	0.98	210	70	
	V	1150	⑬	0.44	85	60	
		1150	⑭	0.76	170	56	
		1150	⑮	0.56	120	64	

Current values determined at 230V

Fan ordering information

Design	RH*	ER**	GR**	GR**	GR**
Installation position	H/Vu/Vo	H	H	Vo	Vu
					
Type	**RH35C-ZID.DC.CR**	**ER35C-ZID.DC.CR**	**GR35C-ZID.DC.CR**	**GR35C-ZID.DC.CR**	**GR35C-ZID.DC.CR**
Basic electronics					
Article no.	**114496**	**114587/A01**	**114539/H01**	**114539/O01**	**114539/U01**
Premium electronics					
Article no.	**114497**				
Weight [kg]	11.00	23.00	18.00	18.00	18.00

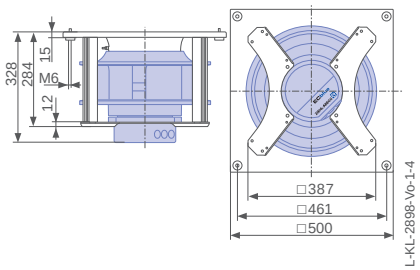
* Inlet ring not included

** Inlet ring integrated

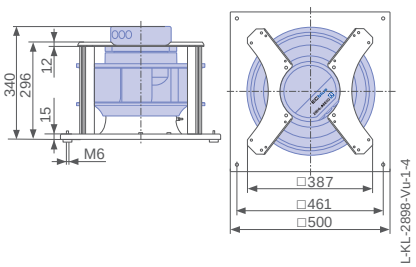
Control technology

Control module	Operating terminal	Expansion module
		
Page 464	Page 476	Page 473

Ventilation unit GR in installation position Vo



Ventilation unit GR in installation position Vu



C p r o - E C b l u e

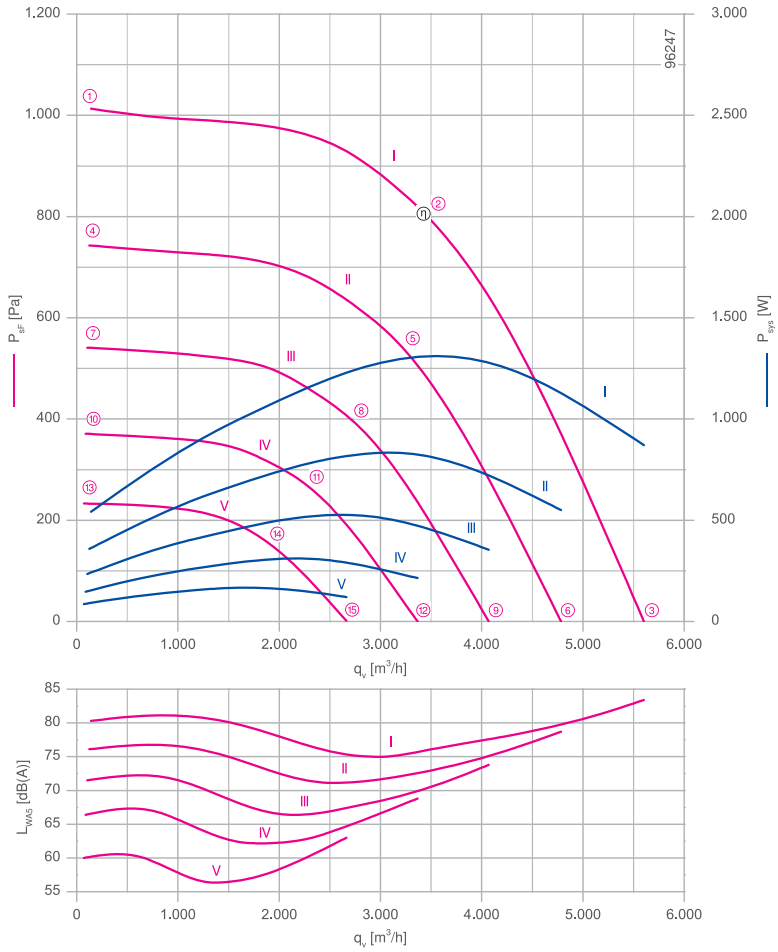
for single phase alternating current, 200-277 V

R H 3 5 C - Z I K

Description

Motor technology: EC
Rated voltage U: **1~200-277 V***
Rated frequency f: **50/60 Hz***
Motor input power P: **1.30 kW***
Rated current I: **6.80-5.00 A***
Rated speed n: **2390 min^{-1}***
Thermal class: **THCL155***
Min. permitted ambient temperature t_R: -20 °C
Max. permitted ambient temperature t_R at n_{max}: 45 °C
Electrical connection: integrated Controller
Number of blades : 7
Balancing quality: G 6.3
Protection class: IP54
Motor protection: Integrated active temperature management
Impeller : ZAmid, uncoated, Ultramarine blue
Conformity: ErP 2015, CE
ErP-data
Efficiency η_{statA}: 65.1 %
Efficiency: N_{actual} = 74.4 / N_{target} = 62**
EC controller integrated
*Rated data
**ErP 2015

Characteristic curve

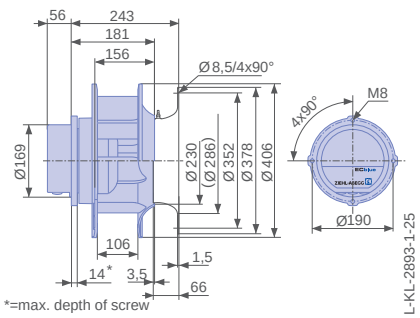


measured with inlet ring, without guard grille according to ISO 5801

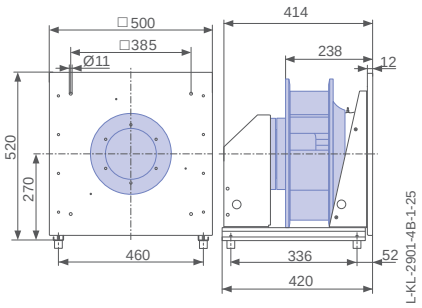
Inlet ring	00401296	Page 450
Connection diagram	1360-401	Page 548
Rubber dampers	30x30 / 40	Page 454
Spring vibration dampers	MSN 4	Page 454
System components		Page 448

Dimensions [mm]

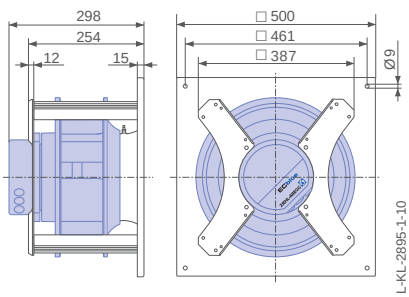
Free-running motor impeller RH
in installation position H/Vu/Vo



Plug fan ER in installation position H



Ventilation unit GR in installation position H

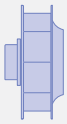
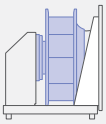
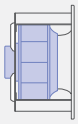
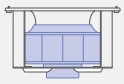


Performance data

Type	Characteristic curve	Speed n [min⁻¹]	Operating point	Current I [A]	Motor input power P_{sys} [W]	Suction side sound power level L_{WA5} [dB]	Maximum ambient temperature t_R [°C]
__35C-ZIK.DC.CR	I	2390	①	2.50	540	80	45
		2390	②	5.80	1300	77	
		2390	③	3.90	880	83	
	II	2050	④	1.70	360	76	60
		2050	⑤	3.80	840	72	
		2050	⑥	2.60	560	79	
	III	1750	⑦	1.10	230	72	
		1750	⑧	2.50	520	67	
		1750	⑨	1.70	350	74	
	IV	1450	⑩	0.70	150	66	
		1450	⑪	1.45	310	63	
		1450	⑫	1.00	210	69	
	V	1150	⑬	0.44	85	60	
		1150	⑭	0.76	170	57	
		1150	⑮	0.58	120	63	

Current values determined at 230V

Fan ordering information

Design	RH*	ER**	GR**	GR**	GR**
Installation position	H/Vu/Vo	H	H	Vo	Vu
					
Type	**RH35C-ZIK.DC.CR**	**ER35C-ZIK.DC.CR**	**GR35C-ZIK.DC.CR**	**GR35C-ZIK.DC.CR**	**GR35C-ZIK.DC.CR**
Basic electronics					
Article no.	**114490**	**114584/A01**	**114536/H01**	**114536/O01**	**114536/U01**
Premium electronics					
Article no.	**114491**				
Weight [kg]	11.00	22.00	18.00	18.00	18.00

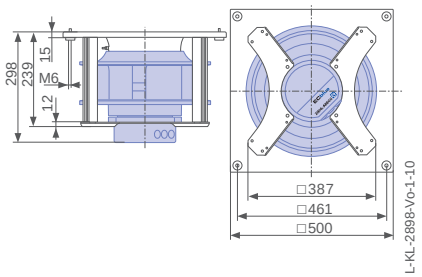
* Inlet ring not included

** Inlet ring integrated

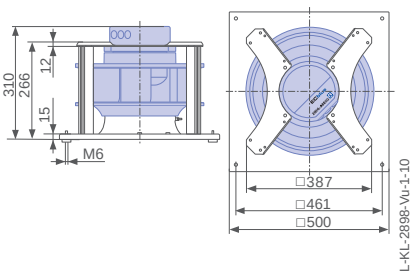
Control technology

Control module	Operating terminal	Expansion module
		
Page 464	Page 476	Page 473

Ventilation unit GR in installation position Vo



Ventilation unit GR in installation position Vu

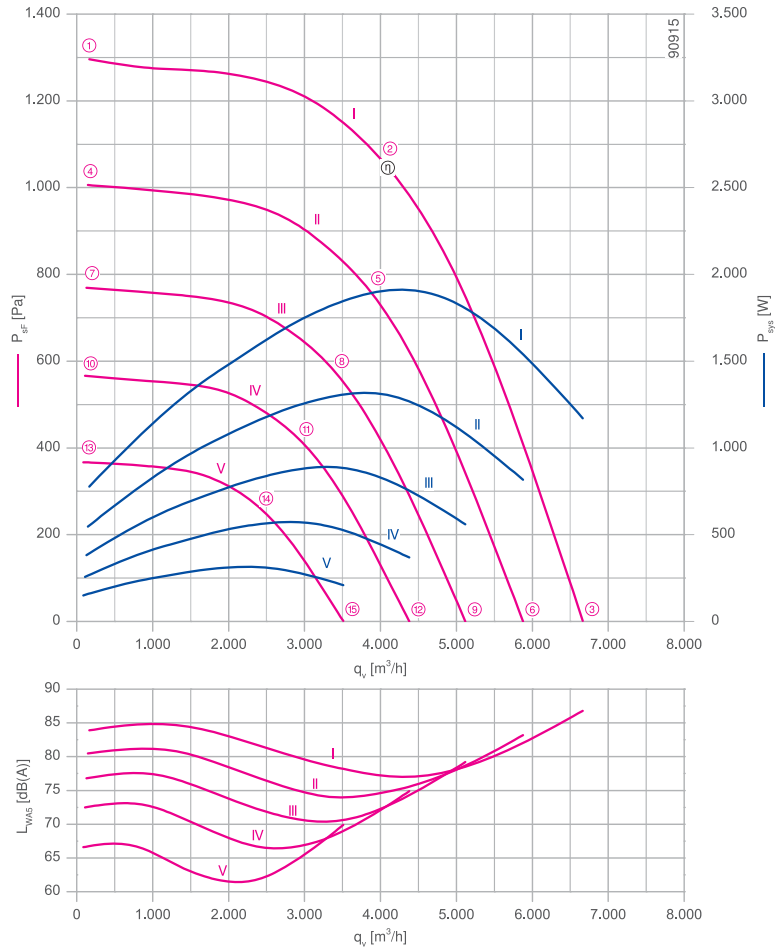


C p r o - E C b l u e

for three phase alternating current, 200-240 V

R H 3 5 C - Z I D

Characteristic curve



measured with inlet ring, without guard grille according to ISO 5801

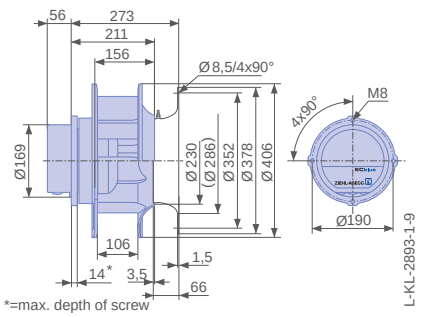
Description

Motor technology: EC
Rated voltage U: **3~200-240 V***
Rated frequency f: **50/60 Hz***
Motor input power P: **1.90 kW***
Rated current I: **5.80-4.80 A***
Rated speed n: **2720 min^{-1}***
Thermal class: **THCL155***
Min. permitted ambient temperature t_R: -20 °C
Max. permitted ambient temperature t_R at n_{max}: 50 °C
Electrical connection: integrated Controller
Number of blades : 7
Balancing quality: G 6.3
Protection class: IP54
Motor protection: Integrated active temperature management
Impeller : ZAmid, uncoated, Ultramarine blue
Conformity: ErP 2015, CE
ErP-data
Efficiency η_{statA}: 71.6 %
Efficiency: N_{actual} = 79.2 / N_{target} = 62**
EC controller integrated
*Rated data
**ErP 2015

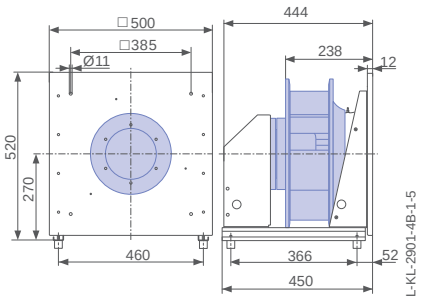
Inlet ring	00401296	Page 450
Connection diagram	1360-401	Page 548
Rubber dampers	30x30 / 40	Page 454
Spring vibration dampers	MSN 4	Page 454
System components		Page 448

Dimensions [mm]

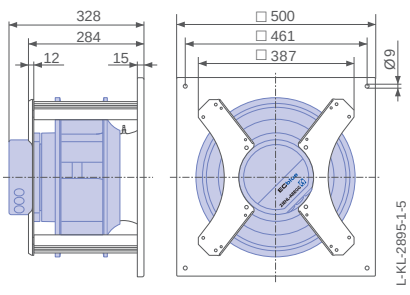
Free-running motor impeller RH
in installation position H/Vu/Vo



Plug fan ER in installation position H



Ventilation unit GR in installation position H

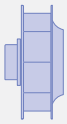
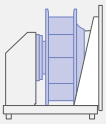
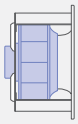
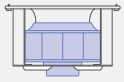


Performance data

Type	Characteristic curve	Speed n [min⁻¹]	Operating point	Current I [A]	Motor input power P_{sys} [W]	Suction side sound power level L_{WA5} [dB]	Maximum ambient temperature t_R [°C]
__35C-ZID.DC.CR	I	2720	①	2.10	780	84	50
		2720	②	5.00	1900	77	
		2720	③	3.10	1150	87	
	II	2400	④	1.50	540	81	60
		2400	⑤	3.50	1300	74	
		2400	⑥	2.20	820	83	
	III	2100	⑦	1.05	380	77	
		2100	⑧	2.40	900	70	
		2100	⑨	1.50	560	79	
	IV	1800	⑩	0.76	260	73	
		1800	⑪	1.55	580	67	
		1800	⑫	1.05	370	75	
	V	1450	⑬	0.50	150	67	
		1450	⑭	0.90	310	62	
		1450	⑮	0.64	210	70	

Current values determined at 230V

Fan ordering information

Design	RH*	ER**	GR**	GR**	GR**
Installation position	H/Vu/Vo	H	H	Vo	Vu
					
Type	**RH35C-ZID.DC.CR**	**ER35C-ZID.DC.CR**	**GR35C-ZID.DC.CR**	**GR35C-ZID.DC.CR**	**GR35C-ZID.DC.CR**
Basic electronics					
Article no.	**114498**	**114588/A01**	**114540/H01**	**114540/O01**	**114540/U01**
Premium electronics					
Article no.	**114499**				
Weight [kg]	11.00	23.00	18.00	18.00	18.00

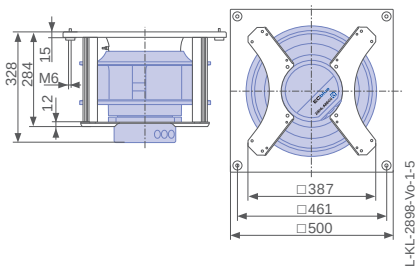
* Inlet ring not included

** Inlet ring integrated

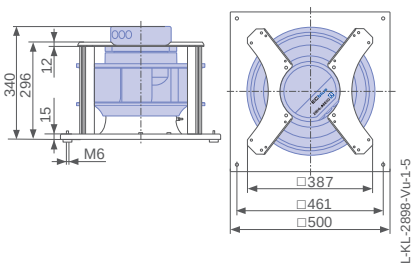
Control technology

Control module	Operating terminal	Expansion module
		
Page 464	Page 476	Page 473

Ventilation unit GR in installation position Vo



Ventilation unit GR in installation position Vu



C p r o - E C b l u e

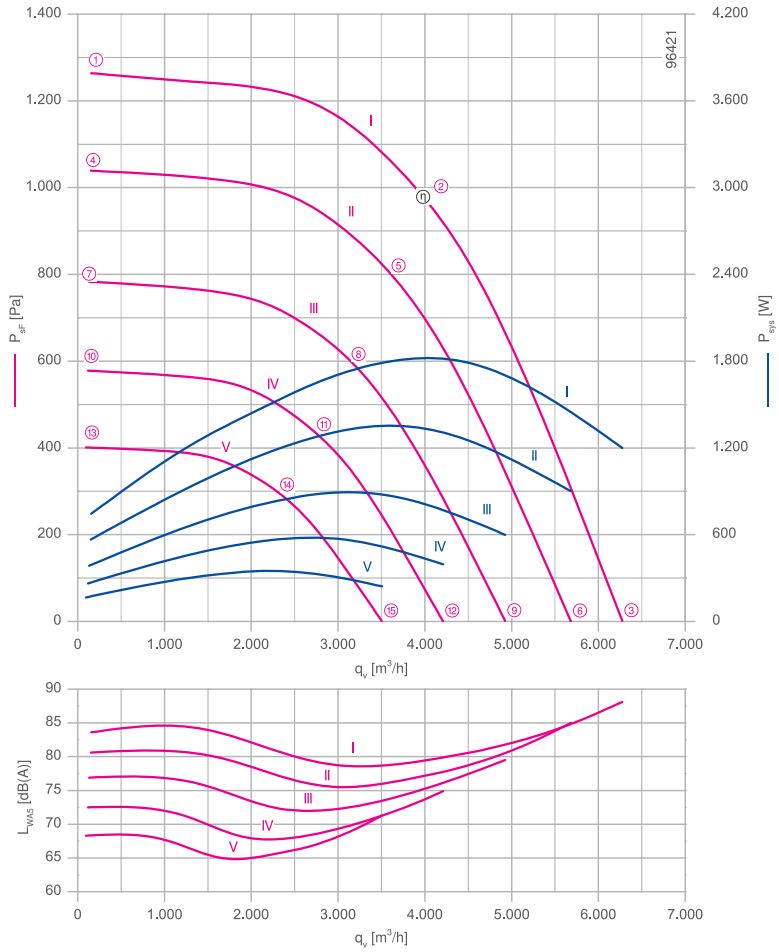
for three phase alternating current, 200-240 V

R H 3 5 C - Z I K

Description

Motor technology: EC
Rated voltage U: **3~200-240 V***
Rated frequency f: **50/60 Hz***
Motor input power P: **1.80 kW***
Rated current I: **5.60-4.60 A***
Rated speed n: **2670 min^{-1}***
Thermal class: **THCL155***
Min. permitted ambient temperature t_R: -20 °C
Max. permitted ambient temperature t_R at n_{max}: 55 °C
Electrical connection: integrated Controller
Number of blades : 7
Balancing quality: G 6.3
Protection class: IP54
Motor protection: Integrated active temperature management
Impeller : ZAmid, uncoated, Ultramarine blue
Conformity: ErP 2015, CE
ErP-data
Efficiency η_{statA}: 65.3 %
Efficiency: N_{actual} = 73.1 / N_{target} = 62**
EC controller integrated
*Rated data
**ErP 2015

Characteristic curve

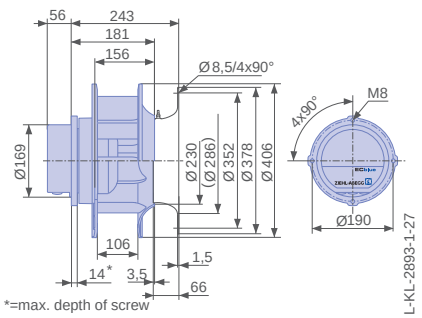


measured with inlet ring, without guard grille according to ISO 5801

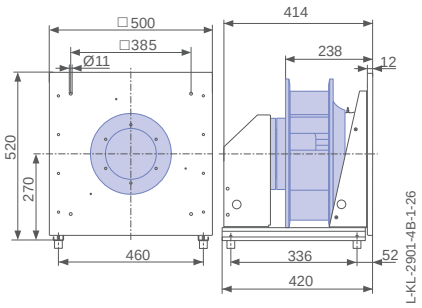
Inlet ring	00401296	Page 450
Connection diagram	1360-401	Page 548
Rubber dampers	30x30 / 40	Page 454
Spring vibration dampers	MSN 4	Page 454
System components		Page 448

Dimensions [mm]

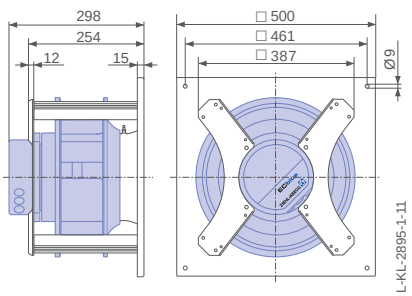
Free-running motor impeller RH
in installation position H/Vu/Vo



Plug fan ER in installation position H



Ventilation unit GR in installation position H

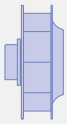
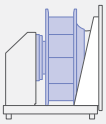
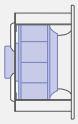
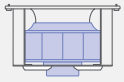


Performance data

Type	Characteristic curve	Speed n [min⁻¹]	Operating point	Current I [A]	Motor input power P_{sys} [W]	Suction side sound power level L_{WA5} [dB]	Maximum ambient temperature t_R [°C]
__35C-ZIK.DC.CR	I	2670	①	2.00	740	84	55
		2670	②	4.80	1800	80	
		2670	③	3.20	1200	88	
	II	2420	④	1.55	560	81	60
		2420	⑤	3.60	1350	76	
		2420	⑥	2.40	900	85	
	III	2100	⑦	1.10	390	77	
		2100	⑧	2.40	900	73	
		2100	⑨	1.65	600	80	
	IV	1800	⑩	0.80	260	73	
		1800	⑪	1.60	580	68	
		1800	⑫	1.10	400	75	
	V	1500	⑬	0.58	170	68	
		1500	⑭	1.00	350	66	
		1500	⑮	0.74	240	71	

Current values determined at 230V

Fan ordering information

Design	RH*	ER**	GR**	GR**	GR**
Installation position	H/Vu/Vo	H	H	Vo	Vu
					
Type	**RH35C-ZIK.DC.CR**	**ER35C-ZIK.DC.CR**	**GR35C-ZIK.DC.CR**	**GR35C-ZIK.DC.CR**	**GR35C-ZIK.DC.CR**
Basic electronics					
Article no.	**114492**	**114585/A01**	**114537/H01**	**114537/O01**	**114537/U01**
Premium electronics					
Article no.	**114493**				
Weight [kg]	11.00	22.00	18.00	18.00	18.00

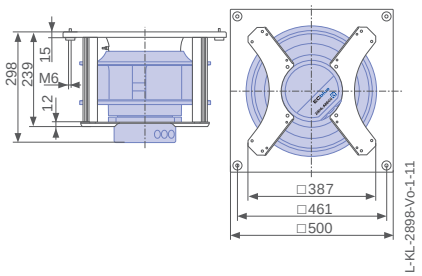
* Inlet ring not included

** Inlet ring integrated

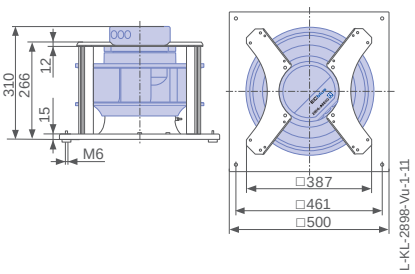
Control technology

Control module	Operating terminal	Expansion module
		
Page 464	Page 476	Page 473

Ventilation unit GR in installation position Vo



Ventilation unit GR in installation position Vu

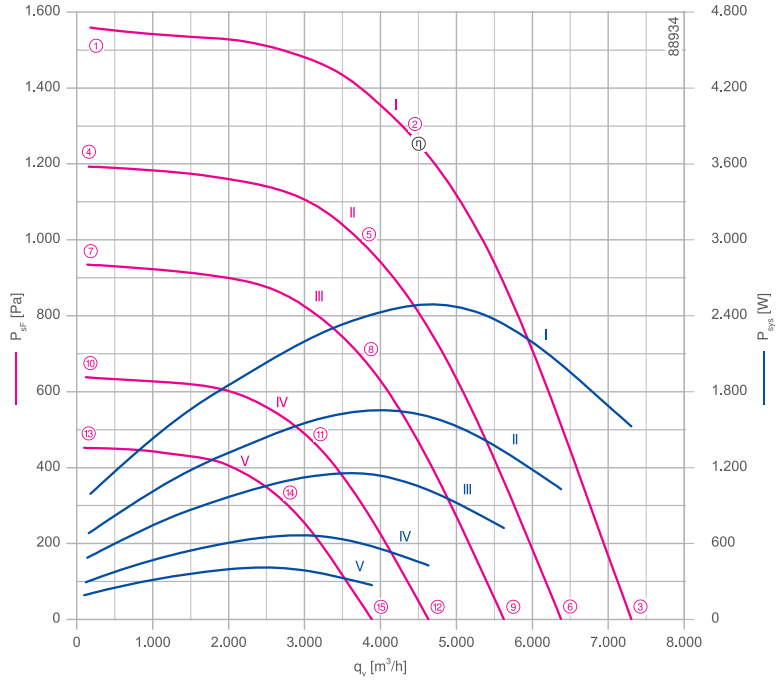


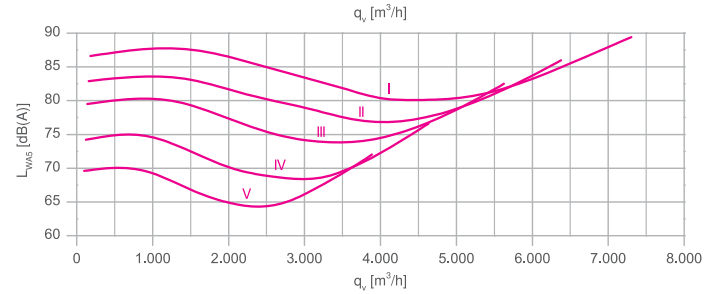
C p r o - E C b l u e

for three phase alternating current, 380-480 V

R H 3 5 C - Z I D

Characteristic curve





measured with inlet ring, without guard grille according to ISO 5801

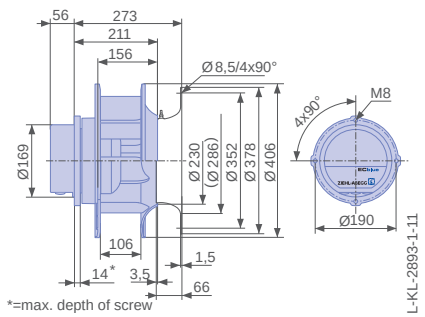
Description

Motor technology: EC
Rated voltage U: **3~380-480 V***
Rated frequency f: **50/60 Hz***
Motor input power P: **2.50 kW***
Rated current I: **4.00-3.20 A***
Rated speed n: **2970 min^{-1}***
Thermal class: **THCL155***
Min. permitted ambient temperature t_R: -20 °C
Max. permitted ambient temperature t_R at n_{max}: 50 °C
Electrical connection: integrated Controller
Number of blades : 7
Balancing quality: G 6.3
Protection class: IP54
Motor protection: Integrated active temperature management
Impeller : ZAmid, uncoated, Ultramarine blue
Conformity: ErP 2015, CE
ErP-data
Efficiency η_{statA}: 68.6 %
Efficiency: N_{actual} = 74.9 / N_{target} = 62**
EC controller integrated
*Rated data
**ErP 2015

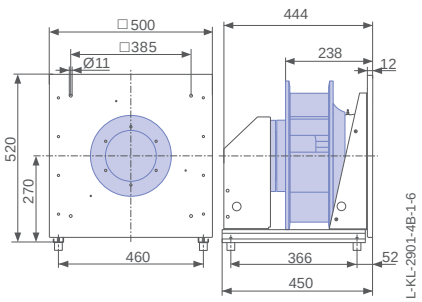
Inlet ring	00401296	Page 450
Connection diagram	1360-401	Page 548
Rubber dampers	30x30 / 40	Page 454
Spring vibration dampers	MSN 4	Page 454
System components		Page 448

Dimensions [mm]

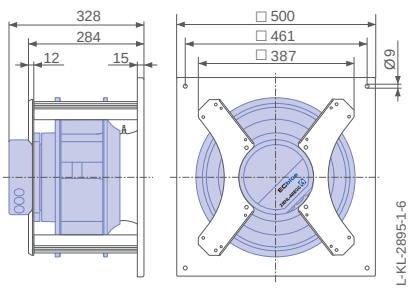
Free-running motor impeller RH
in installation position H/Vu/Vo



Plug fan ER in installation position H



Ventilation unit GR in installation position H

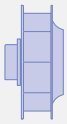
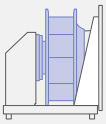
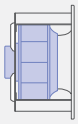
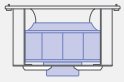


Performance data

Type	Characteristic curve	Speed n [min⁻¹]	Operating point	Current I [A]	Motor input power P_{sys} [W]	Suction side sound power level L_{WA5} [dB]	Maximum ambient temperature t_R [°C]
__35C-ZID.DC.CR	I	2970	①	1.60	1000	87	50
		2970	②	3.80	2500	80	
		2970	③	2.40	1550	89	
	II	2600	④	1.15	680	83	60
		2600	⑤	2.60	1650	77	
		2600	⑥	1.65	1050	86	
	III	2300	⑦	0.86	480	80	
		2300	⑧	1.85	1150	74	
		2300	⑨	1.20	720	83	
	IV	1900	⑩	0.62	290	74	
		1900	⑪	1.15	660	68	
		1900	⑫	0.78	420	77	
	V	1600	⑬	0.46	190	70	
		1600	⑭	0.78	400	65	
		1600	⑮	0.58	270	72	

Current values determined at 400V

Fan ordering information

Design	RH*	ER**	GR**	GR**	GR**
Installation position	H/Vu/Vo	H	H	Vo	Vu
					
Type	**RH35C-ZID.DC.CR**	**ER35C-ZID.DC.CR**	**GR35C-ZID.DC.CR**	**GR35C-ZID.DC.CR**	**GR35C-ZID.DC.CR**
Basic electronics					
Article no.	**114500**	**114589/A01**	**114541/H01**	**114541/O01**	**114541/U01**
Premium electronics					
Article no.	**114501**				
Weight [kg]	11.00	23.00	18.00	18.00	18.00

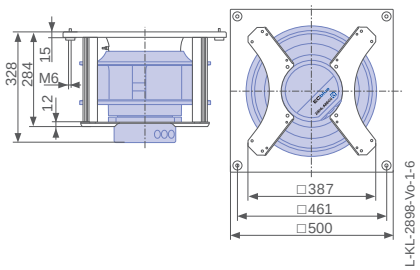
* Inlet ring not included

** Inlet ring integrated

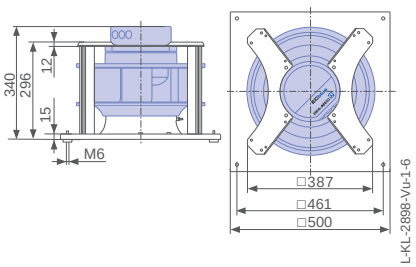
Control technology

Control module	Operating terminal	Expansion module
		
Page 464	Page 476	Page 473

Ventilation unit GR in installation position Vo



Ventilation unit GR in installation position Vu

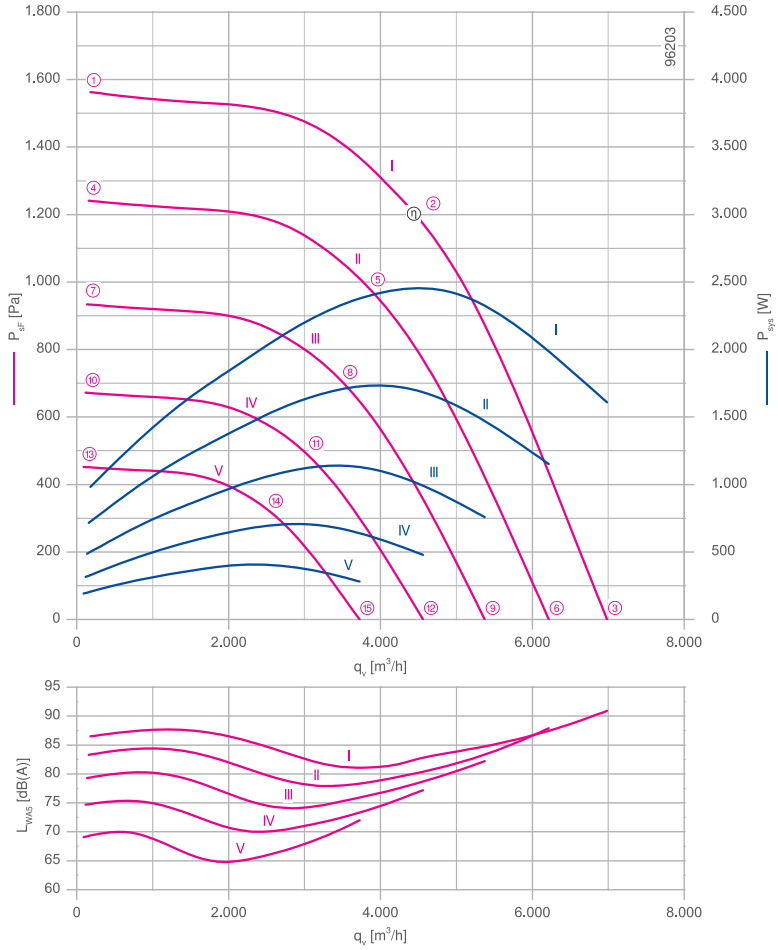


C p r o - E C b l u e

for three phase alternating current, 380-480 V

R H 3 5 C - Z I K

Characteristic curve



measured with inlet ring, without guard grille according to ISO 5801

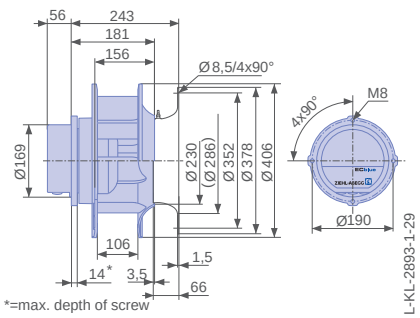
Description

Motor technology: EC
Rated voltage U: **3~380-480 V***
Rated frequency f: **50/60 Hz***
Motor input power P: **2.50 kW***
Rated current I: **4.00-3.20 A***
Rated speed n: **2970 min^{-1}***
Thermal class: **THCL155***
Min. permitted ambient temperature t_R: -20 °C
Max. permitted ambient temperature t_R at n_{max}: 50 °C
Electrical connection: integrated Controller
Number of blades : 7
Balancing quality: G 6.3
Protection class: IP54
Motor protection: Integrated active temperature management
Impeller : ZAmid, uncoated, Ultramarine blue
Conformity: ErP 2015, CE
ErP-data
Efficiency η_{statA}: 65.9 %
Efficiency: N_{actual} = 72.3 / N_{target} = 62**
EC controller integrated
*Rated data
**ErP 2015

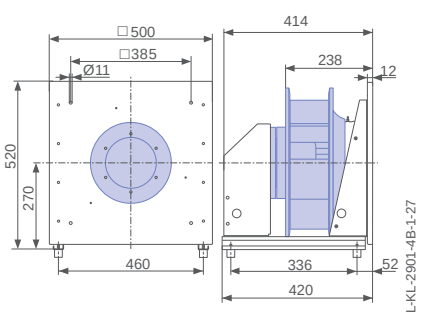
Inlet ring	00401296	Page 450
Connection diagram	1360-401	Page 548
Rubber dampers	30x30 / 40	Page 454
Spring vibration dampers	MSN 4	Page 454
System components		Page 448

Dimensions [mm]

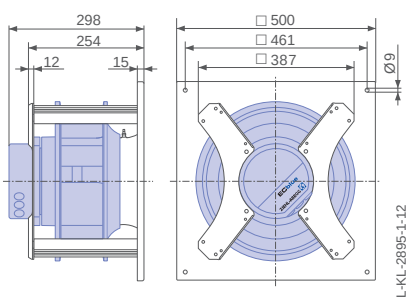
Free-running motor impeller RH
in installation position H/Vu/Vo



Plug fan ER in installation position H



Ventilation unit GR in installation position H

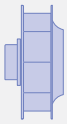
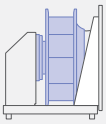
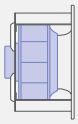
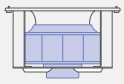


Performance data

Type	Characteristic curve	Speed n [min⁻¹]	Operating point	Current I [A]	Motor input power P_{sys} [W]	Suction side sound power level L_{WA5} [dB]	Maximum ambient temperature t_R [°C]
__35C-ZIK.DC.CR	I	2970	①	1.60	980	87	50
		2970	②	3.80	2500	82	
		2970	③	2.50	1600	91	
	II	2650	④	1.25	720	83	60
		2650	⑤	2.70	1750	79	
		2650	⑥	1.85	1150	88	
	III	2300	⑦	0.94	480	79	
		2300	⑧	1.85	1150	75	
		2300	⑨	1.30	760	82	
	IV	1950	⑩	0.72	310	75	
		1950	⑪	1.25	700	71	
		1950	⑫	0.92	480	77	
	V	1600	⑬	0.50	190	69	
		1600	⑭	0.84	400	66	
		1600	⑮	0.66	280	72	

Current values determined at 400V

Fan ordering information

Design	RH*	ER**	GR**	GR**	GR**
Installation position	H/Vu/Vo	H	H	Vo	Vu
					
Type	**RH35C-ZIK.DC.CR**	**ER35C-ZIK.DC.CR**	**GR35C-ZIK.DC.CR**	**GR35C-ZIK.DC.CR**	**GR35C-ZIK.DC.CR**
Basic electronics					
Article no.	**114494**	**114586/A01**	**114538/H01**	**114538/O01**	**114538/U01**
Premium electronics					
Article no.	**114495**				
Weight [kg]	11.00	22.00	18.00	18.00	18.00

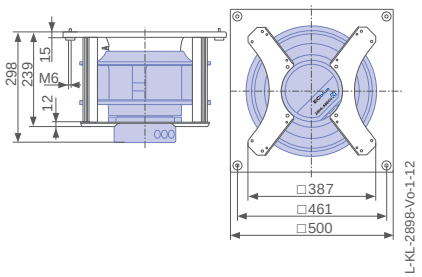
* Inlet ring not included

** Inlet ring integrated

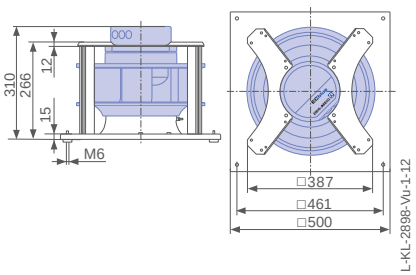
Control technology

Control module	Operating terminal	Expansion module
		
Page 464	Page 476	Page 473

Ventilation unit GR in installation position Vo



Ventilation unit GR in installation position Vu



C p r o - E C b l u e

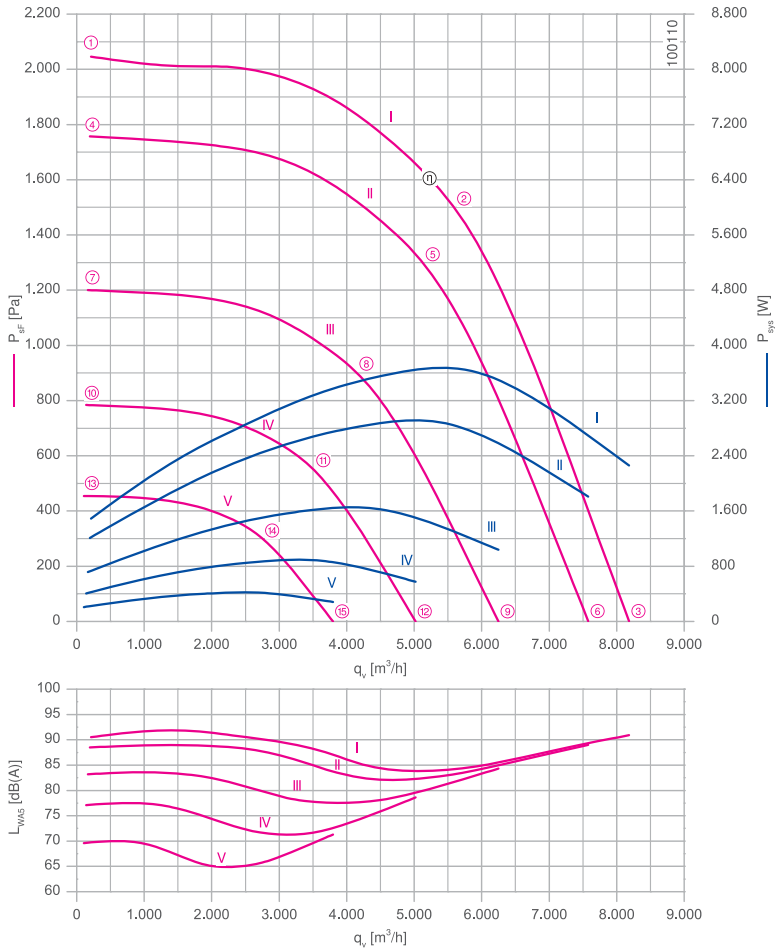
for three phase alternating current, 380-400 V

R H 3 5 C - Z I D

Description

Motor technology: EC
Rated voltage U: **3~380-480 V***
Rated frequency f: **50/60 Hz***
Motor input power P: **3.70 kW***
Rated current I: **5.80-4.60 A***
Rated speed n: **3400 min^{-1}***
Thermal class: **THCL155***
Min. permitted ambient temperature t_R: -20 °C
Max. permitted ambient temperature t_R at n_{max}: 40 °C
Electrical connection: integrated Controller
Number of blades : 7
Balancing quality: G 6.3
Protection class: IP54
Motor protection: Integrated active temperature management
Impeller : ZAmid, uncoated, Ultramarine blue
Conformity: ErP 2015, CE
ErP-data
Efficiency η_{statA}: 68.4 %
Efficiency: N_{actual} = 72.9 / N_{target} = 62**
EC controller integrated
*Rated data
**ErP 2015

Characteristic curve

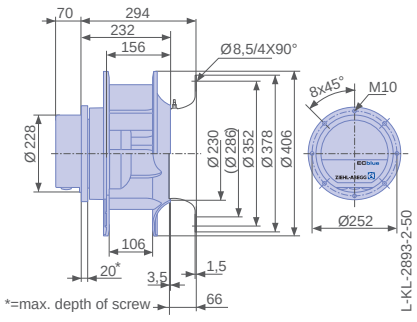


measured with inlet ring, without guard grille according to ISO 5801

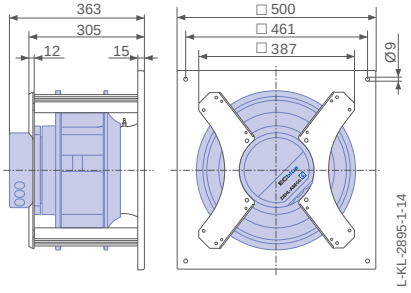
Inlet ring	00401296	Page 450
Connection diagram	1360-401	Page 548
Rubber dampers	30x30 / 40	Page 454
Spring vibration dampers	MSN 4	Page 454
System components		Page 448

Dimensions [mm]

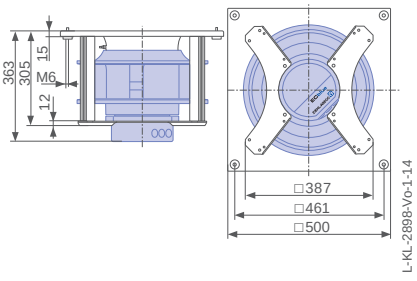
Free-running motor impeller RH in installation position H/Vu/Vo



Ventilation unit GR in installation position H



Ventilation unit GR in installation position Vo

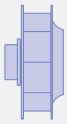
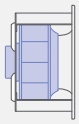
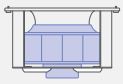


Performance data

Type	Characteristic curve	Speed n [min⁻¹]	Operating point	Current I [A]	Motor input power P_{sys} [W]	Suction side sound power level L_{WA5} [dB]	Maximum ambient temperature t_R [°C]
__35C-ZID.DG.CR	I	3400	①	2.30	1500	91	40
		3400	②	5.60	3700	84	
		3400	③	3.50	2300	91	
	II	3150	④	1.90	1200	89	60
		3150	⑤	4.40	2900	82	
		3150	⑥	2.80	1800	89	
	III	2610	⑦	1.25	720	83	
		2610	⑧	2.60	1650	78	
		2610	⑨	1.70	1050	84	
	IV	2100	⑩	0.82	400	77	
		2100	⑪	1.50	900	72	
		2100	⑫	1.05	580	79	
	V	1600	⑬	0.54	210	70	
		1600	⑭	0.84	420	65	
		1600	⑮	0.66	280	71	

Current values determined at 400V

Fan ordering information

Design	RH*	GR**	GR**	GR**
Installation position	H/Vu/Vo	H	Vo	Vu
				
Type	**RH35C-ZID.DG.CR**	**GR35C-ZID.DG.CR**	**GR35C-ZID.DG.CR**	**GR35C-ZID.DG.CR**
Basic electronics				
Article no.	**114874**	**114922/H01**	**114922/O01**	**114922/U01**
Weight [kg]	14.00	21.00	22.00	22.00

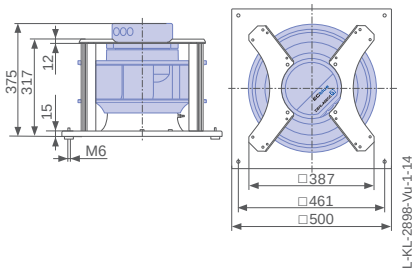
* Inlet ring not included

** Inlet ring integrated

Control technology

Control module	Operating terminal	Expansion module
		
Page 464	Page 476	Page 473

Ventilation unit GR in installation position Vu

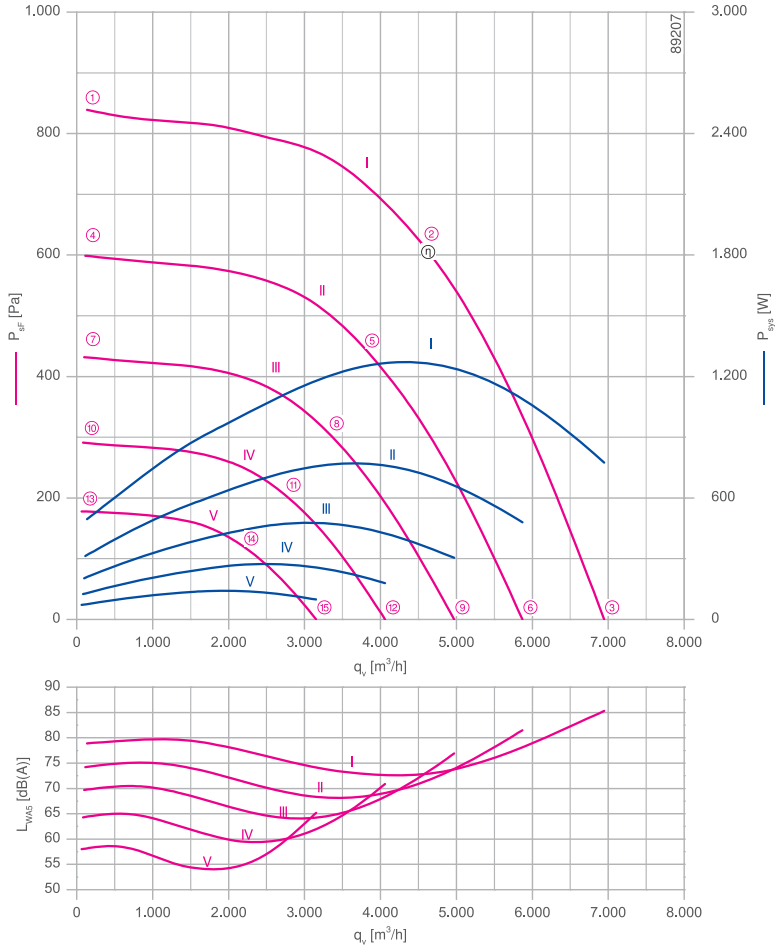


C p r o - E C b l u e

for single phase alternating current, 200-277 V

R H 4 0 C - Z I D

Characteristic curve



measured with inlet ring, without guard grille according to ISO 5801

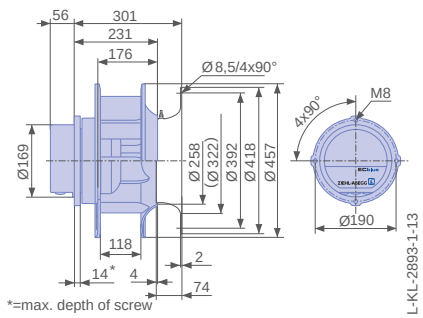
Description

Motor technology: EC
Rated voltage U: **1~200-277 V***
Rated frequency f: **50/60 Hz***
Motor input power P: **1.25 kW***
Rated current I: **6.40-4.60 A***
Rated speed n: **1950 min**$^{-1}$***
Thermal class: **THCL155***
Min. permitted ambient temperature t_R: -20 °C
Max. permitted ambient temperature t_R at n_{max}: 45 °C
Electrical connection: integrated Controller
Number of blades : 7
Balancing quality: G 2.5
Protection class: IP54
Motor protection: Integrated active temperature management
Impeller : ZAmid, uncoated, Ultramarine blue
Conformity: ErP 2015, CE
ErP-data
Efficiency η_{statA}: 68.3 %
Efficiency: N_{actual} = 77.7 / N_{target} = 62**
EC controller integrated
*Rated data
**ErP 2015

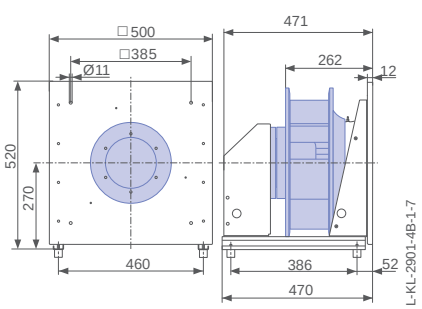
Inlet ring	00401297	Page 450
Connection diagram	1360-401	Page 548
Rubber dampers	30x30 / 40	Page 454
Spring vibration dampers	MSN 4	Page 454
System components		Page 448

Dimensions [mm]

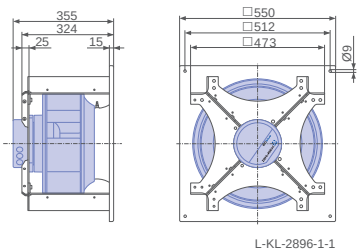
Free-running motor impeller RH
in installation position H/Vu/Vo



Plug fan ER in installation position H



Ventilation unit GR in installation position H

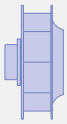
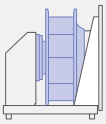
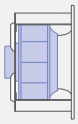
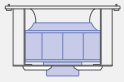


Performance data

Type	Characteristic curve	Speed n [min⁻¹]	Operating point	Current I [A]	Motor input power P_{sys} [W]	Suction side sound power level L_{WA5} [dB]	Maximum ambient temperature t_R [°C]
__40C-ZID.DC.CR	I	1950	①	2.30	500	79	45
		1950	②	5.60	1250	73	
		1950	③	3.50	780	85	
	II	1650	④	1.45	310	74	60
		1650	⑤	3.40	780	68	
		1650	⑥	2.20	480	82	
	III	1400	⑦	0.96	200	70	
		1400	⑧	2.20	480	64	
		1400	⑨	1.45	300	77	
	IV	1150	⑩	0.60	130	64	
		1150	⑪	1.30	270	60	
		1150	⑫	0.82	180	71	
	V	900	⑬	0.39	70	58	
		900	⑭	0.66	140	54	
		900	⑮	0.50	100	65	

Current values determined at 230V

Fan ordering information

Design	RH*	ER**	GR**	GR**	GR**
Installation position	H/Vu/Vo	H	H	Vo	Vu
					
Type	**RH40C-ZID.DC.CR**	**ER40C-ZID.DC.CR**	**GR40C-ZID.DC.CR**	**GR40C-ZID.DC.CR**	**GR40C-ZID.DC.CR**
Basic electronics					
Article no.	**114508**	**114593/A01**	**114545/H01**	**114545/O01**	**114545/U01**
Premium electronics					
Article no.	**114509**				
Weight [kg]	12.00	25.00	28.00	29.00	29.00

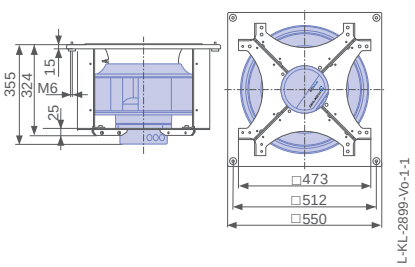
* Inlet ring not included

** Inlet ring integrated

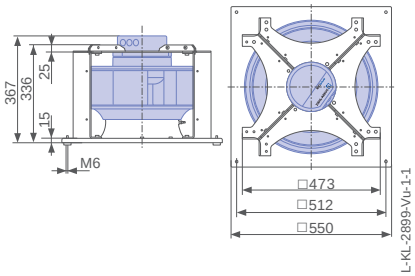
Control technology

Control module	Operating terminal	Expansion module
		
Page 464	Page 476	Page 473

Ventilation unit GR in installation position Vo



Ventilation unit GR in installation position Vu

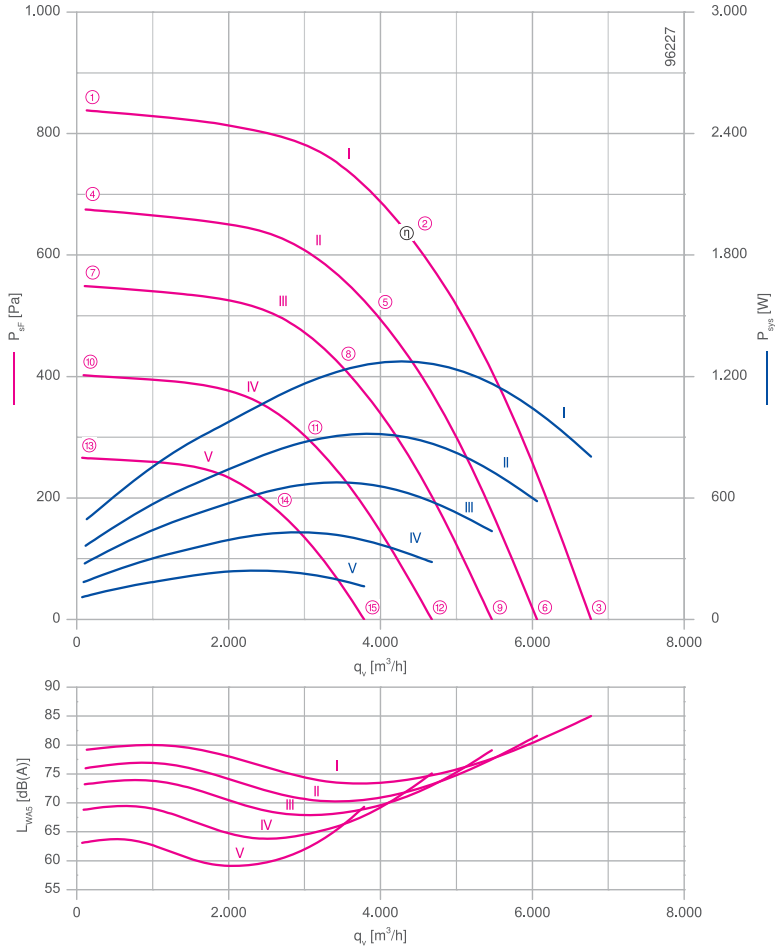


C p r o - E C b l u e

for single phase alternating current, 200-277 V

R H 4 0 C - Z I K

Characteristic curve



measured with inlet ring, without guard grille according to ISO 5801

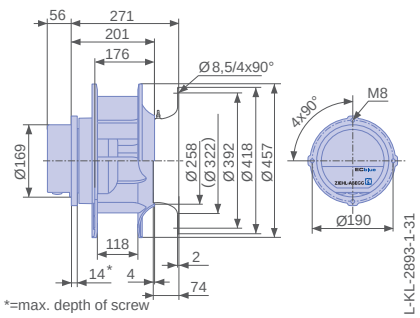
Description

Motor technology: EC
Rated voltage U: **1~200-277 V***
Rated frequency f: **50/60 Hz***
Motor input power P: **1.25 kW***
Rated current I: **6.40-4.60 A***
Rated speed n: **1950 min^{-1}***
Thermal class: **THCL155***
Min. permitted ambient temperature t_R: -20 °C
Max. permitted ambient temperature t_R at n_{max}: 40 °C
Electrical connection: integrated Controller
Number of blades : 7
Balancing quality: G 2.5
Protection class: IP54
Motor protection: Integrated active temperature management
Impeller : ZAmid, uncoated, Ultramarine blue
Conformity: ErP 2015, CE
ErP-data
Efficiency η_{statA}: 66.9 %
Efficiency: N_{actual} = 76.3 / N_{target} = 62**
EC controller integrated
*Rated data
**ErP 2015

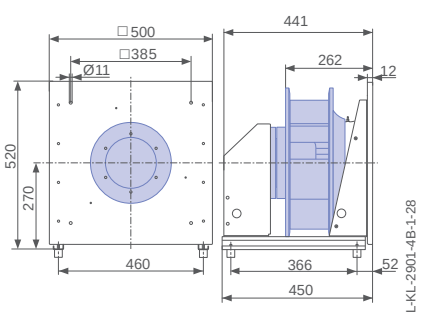
Inlet ring	00401297	Page 450
Connection diagram	1360-401	Page 548
Rubber dampers	30x30 / 40	Page 454
Spring vibration dampers	MSN 4	Page 454
System components		Page 448

Dimensions [mm]

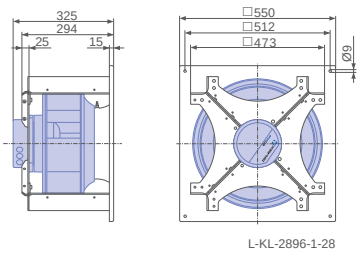
Free-running motor impeller RH
in installation position H/Vu/Vo



Plug fan ER in installation position H



Ventilation unit GR in installation position H

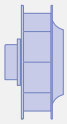
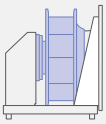
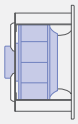
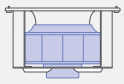


Performance data

Type	Characteristic curve	Speed n [min^{-1}]	Operating point	Current I [A]	Motor input power P_{sys} [W]	Suction side sound power level L_{WA5} [dB]	Maximum ambient temperature t_R [°C]
__40C-ZIK.DC.CR	I	1950	①	2.30	500	79	40
		1950	②	5.60	1250	74	
		1950	③	3.60	800	85	
	II	1750	④	1.70	360	76	
		1750	⑤	4.00	920	71	
		1750	⑥	2.60	580	82	
	III	1580	⑦	1.30	280	73	60
		1580	⑧	3.00	680	68	
		1580	⑨	2.00	440	79	
	IV	1350	⑩	0.86	180	69	
		1350	⑪	2.00	440	65	
		1350	⑫	1.35	280	75	
	V	1100	⑬	0.54	110	63	
		1100	⑭	1.15	240	60	
		1100	⑮	0.76	160	69	

Current values determined at 230V

Fan ordering information

Design	RH*	ER**	GR**	GR**	GR**
Installation position	H/Vu/Vo	H	H	Vo	Vu
					
Type	**RH40C-ZIK.DC.CR**	**ER40C-ZIK.DC.CR**	**GR40C-ZIK.DC.CR**	**GR40C-ZIK.DC.CR**	**GR40C-ZIK.DC.CR**
Basic electronics					
Article no.	**114502**	**114590/A01**	**114542/H01**	**114542/O01**	**114542/U01**
Premium electronics					
Article no.	**114503**				
Weight [kg]	12.00	25.00	28.00	28.00	28.00

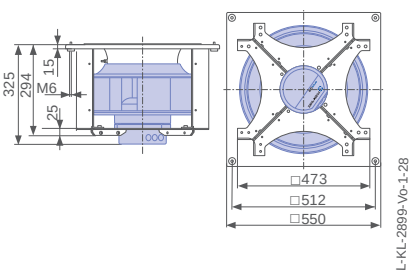
* Inlet ring not included

** Inlet ring integrated

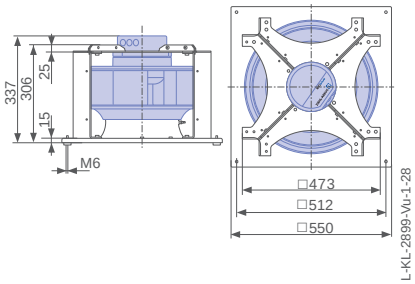
Control technology

Control module	Operating terminal	Expansion module
		
Page 464	Page 476	Page 473

Ventilation unit GR in installation position Vo



Ventilation unit GR in installation position Vu



C p r o - E C b l u e

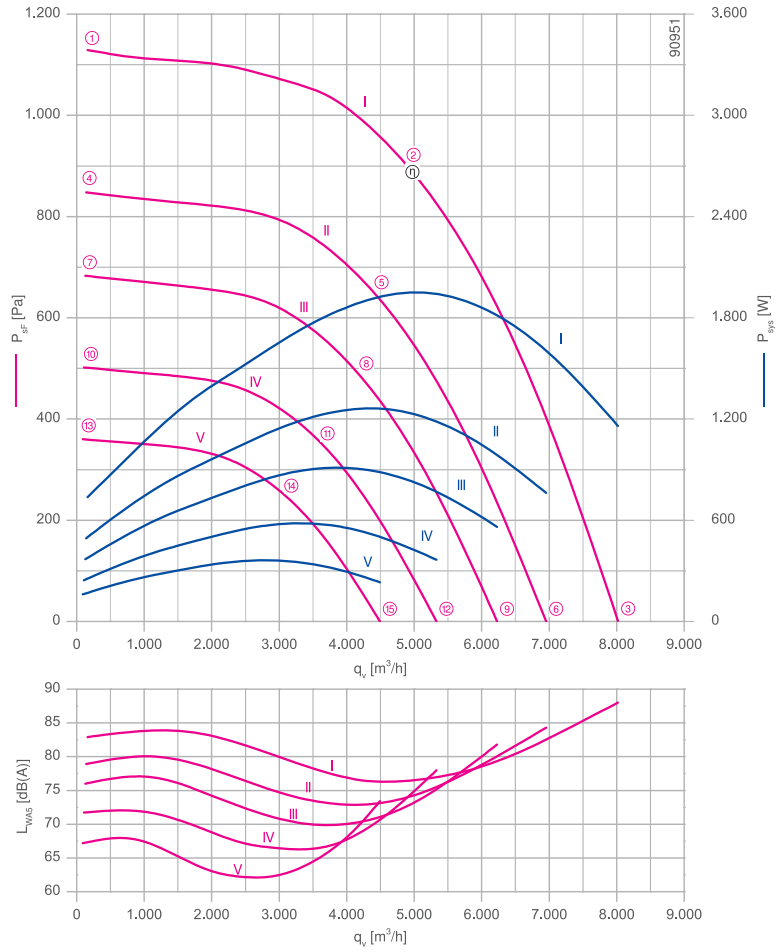
for three phase alternating current, 200-240 V

R H 4 0 C - Z I D

Description

Motor technology: EC
Rated voltage U: **3~200-240 V***
Rated frequency f: **50/60 Hz***
Motor input power P: **1.95 kW***
Rated current I: **5.90-4.90 A***
Rated speed n: **2250 min^{-1}***
Thermal class: **THCL155***
Min. permitted ambient temperature t_R: -20 °C
Max. permitted ambient temperature t_R at n_{max}: 50 °C
Electrical connection: integrated Controller
Number of blades : 7
Balancing quality: G 2.5
Protection class: IP54
Motor protection: Integrated active temperature management
Impeller : ZAmid, uncoated, Ultramarine blue
Conformity: ErP 2015, CE
ErP-data
Efficiency η_{statA}: 68.9 %
Efficiency: N_{actual} = 76.3 / N_{target} = 62**
EC controller integrated
*Rated data
**ErP 2015

Characteristic curve

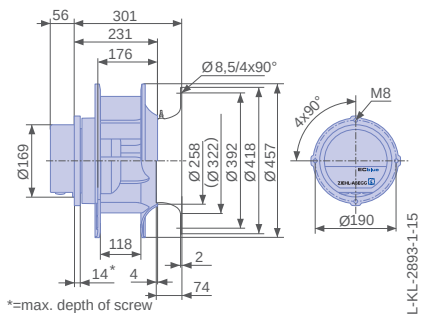


measured with inlet ring, without guard grille according to ISO 5801

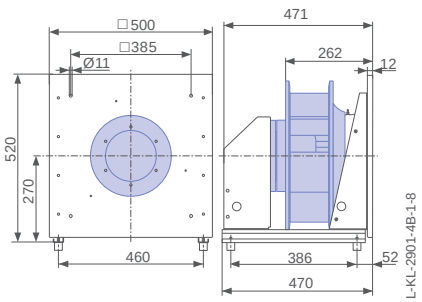
Inlet ring	00401297	Page 450
Connection diagram	1360-401	Page 548
Rubber dampers	30x30 / 40	Page 454
Spring vibration dampers	MSN 4	Page 454
System components		Page 448

Dimensions [mm]

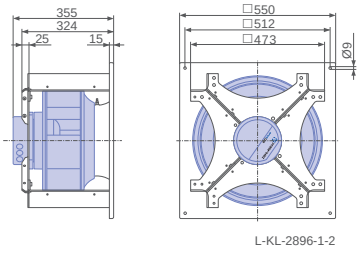
Free-running motor impeller RH
in installation position H/Vu/Vo



Plug fan ER in installation position H



Ventilation unit GR in installation position H

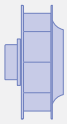
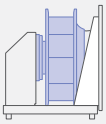
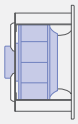
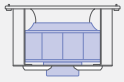


Performance data

Type	Characteristic curve	Speed n [min⁻¹]	Operating point	Current I [A]	Motor input power P_{sys} [W]	Suction side sound power level L_{WA5} [dB]	Maximum ambient temperature t_R [°C]
__40C-ZID.DC.CR	I	2250	①	1.95	740	83	50
		2250	②	5.20	1950	77	
		2250	③	3.00	1150	88	
	II	1950	④	1.35	500	79	60
		1950	⑤	3.30	1250	73	
		1950	⑥	2.00	760	84	
	III	1750	⑦	1.00	370	76	
		1750	⑧	2.40	900	70	
		1750	⑨	1.50	560	82	
	IV	1500	⑩	0.72	240	72	
		1500	⑪	1.55	580	66	
		1500	⑫	1.00	370	78	
	V	1270	⑬	0.52	160	67	
		1270	⑭	1.00	360	62	
		1270	⑮	0.68	230	73	

Current values determined at 230V

Fan ordering information

Design	RH*	ER**	GR**	GR**	GR**
Installation position	H/Vu/Vo	H	H	Vo	Vu
					
Type	**RH40C-ZID.DC.CR**	**ER40C-ZID.DC.CR**	**GR40C-ZID.DC.CR**	**GR40C-ZID.DC.CR**	**GR40C-ZID.DC.CR**
Basic electronics					
Article no.	**114510**	**114594/A01**	**114546/H01**	**114546/O01**	**114546/U01**
Premium electronics					
Article no.	**114511**				
Weight [kg]	12.00	25.00	28.00	28.00	28.00

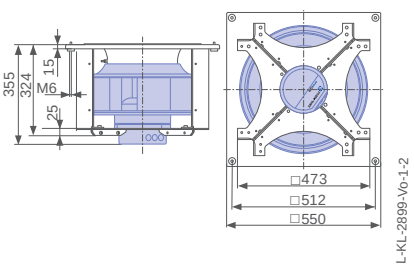
* Inlet ring not included

** Inlet ring integrated

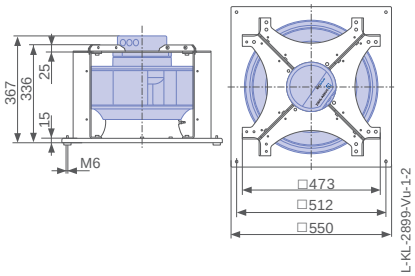
Control technology

Control module	Operating terminal	Expansion module
		
Page 464	Page 476	Page 473

Ventilation unit GR in installation position Vo



Ventilation unit GR in installation position Vu

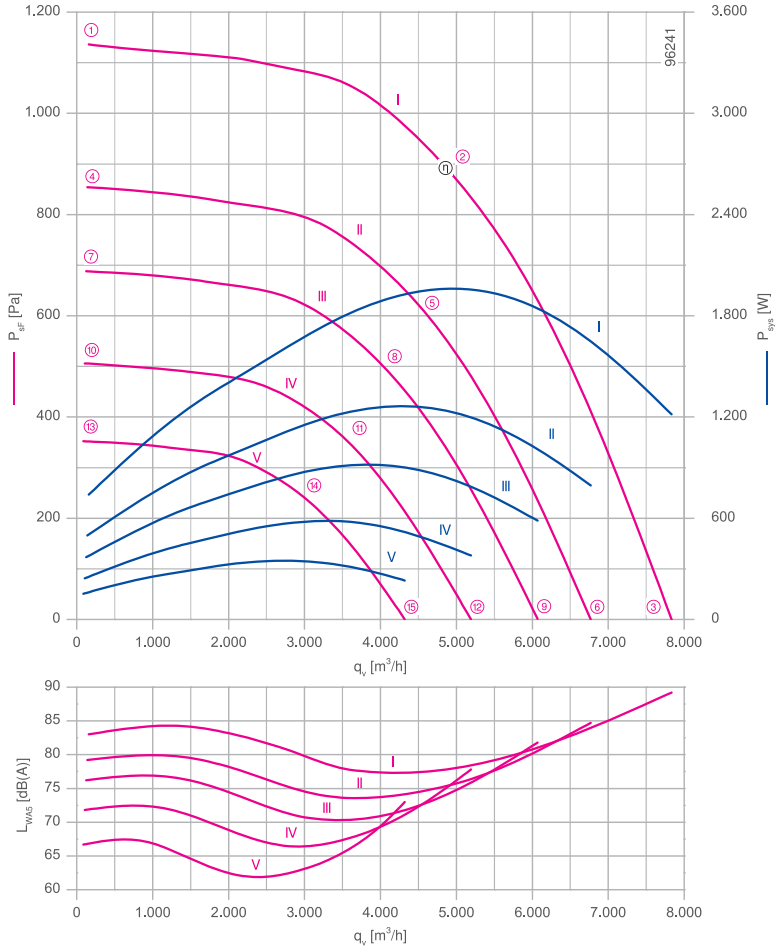


C p r o - E C b l u e

for three phase alternating current, 200-240 V

R H 4 0 C - Z I K

Characteristic curve



measured with inlet ring, without guard grille according to ISO 5801

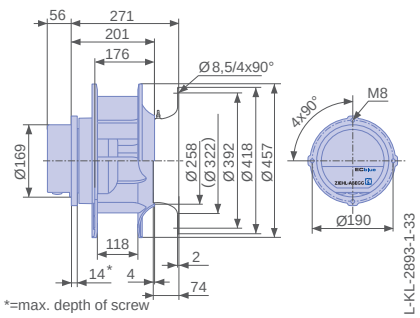
Description

Motor technology: EC
Rated voltage U: **3~200-240 V***
Rated frequency f: **50/60 Hz***
Motor input power P: **1.95 kW***
Rated current I: **6.00-5.00 A***
Rated speed n: **2250 min^{-1}***
Thermal class: **THCL155***
Min. permitted ambient temperature t_R: -20 °C
Max. permitted ambient temperature t_R at n_{max}: 50 °C
Electrical connection: integrated Controller
Number of blades : 7
Balancing quality: G 2.5
Protection class: IP54
Motor protection: Integrated active temperature management
Impeller : ZAmid, uncoated, Ultramarine blue
Conformity: ErP 2015, CE
ErP-data
Efficiency η_{statA}: 67.4 %
Efficiency: N_{actual} = 74.9 / N_{target} = 62**
EC controller integrated
*Rated data
**ErP 2015

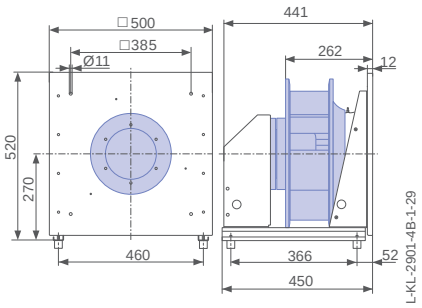
Inlet ring	00401297	Page 450
Connection diagram	1360-401	Page 548
Rubber dampes	30x30 / 40	Page 454
Spring vibration dampers	MSN 4	Page 454
System components		Page 448

Dimensions [mm]

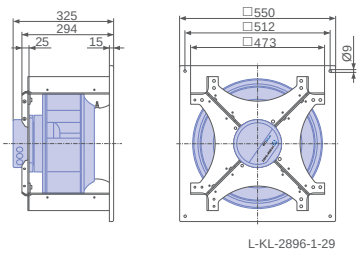
Free-running motor impeller RH
in installation position H/Vu/Vo



Plug fan ER in installation position H



Ventilation unit GR in installation position H

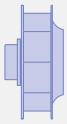
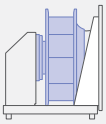
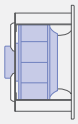
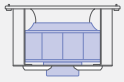


Performance data

Type	Characteristic curve	Speed n [min⁻¹]	Operating point	Current I [A]	Motor input power P_{sys} [W]	Suction side sound power level L_{WA5} [dB]	Maximum ambient temperature t_R [°C]
__40C-ZIK.DC.CR	I	2250	①	1.95	740	83	50
		2250	②	5.20	1950	78	
		2250	③	3.20	1200	89	
	II	1950	④	1.35	500	79	60
		1950	⑤	3.30	1250	74	
		1950	⑥	2.10	800	85	
	III	1750	⑦	1.05	370	76	
		1750	⑧	2.40	920	71	
		1750	⑨	1.55	580	82	
	IV	1500	⑩	0.72	240	72	
		1500	⑪	1.55	580	67	
		1500	⑫	1.05	380	78	
	V	1250	⑬	0.50	150	67	
		1250	⑭	0.98	350	63	
		1250	⑮	0.70	230	73	

Current values determined at 230V

Fan ordering information

Design	RH*	ER**	GR**	GR**	GR**
Installation position	H/Vu/Vo	H	H	Vo	Vu
					
Type	**RH40C-ZIK.DC.CR**	**ER40C-ZIK.DC.CR**	**GR40C-ZIK.DC.CR**	**GR40C-ZIK.DC.CR**	**GR40C-ZIK.DC.CR**
Basic electronics					
Article no.	**114504**	**114591/A01**	**114543/H01**	**114543/O01**	**114543/U01**
Premium electronics					
Article no.	**114505**				
Weight [kg]	12.00	25.00	28.00	28.00	28.00

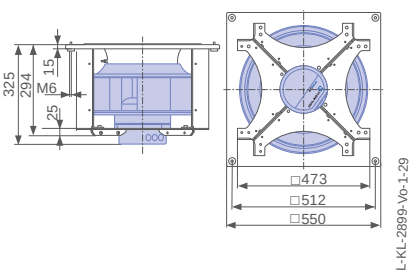
* Inlet ring not included

** Inlet ring integrated

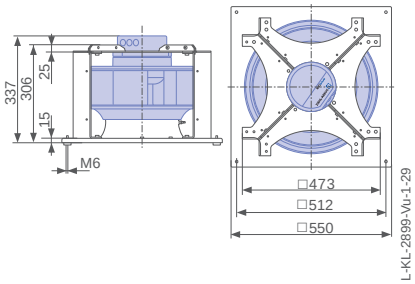
Control technology

Control module	Operating terminal	Expansion module
		
Page 464	Page 476	Page 473

Ventilation unit GR in installation position Vo



Ventilation unit GR in installation position Vu



C p r o - E C b l u e

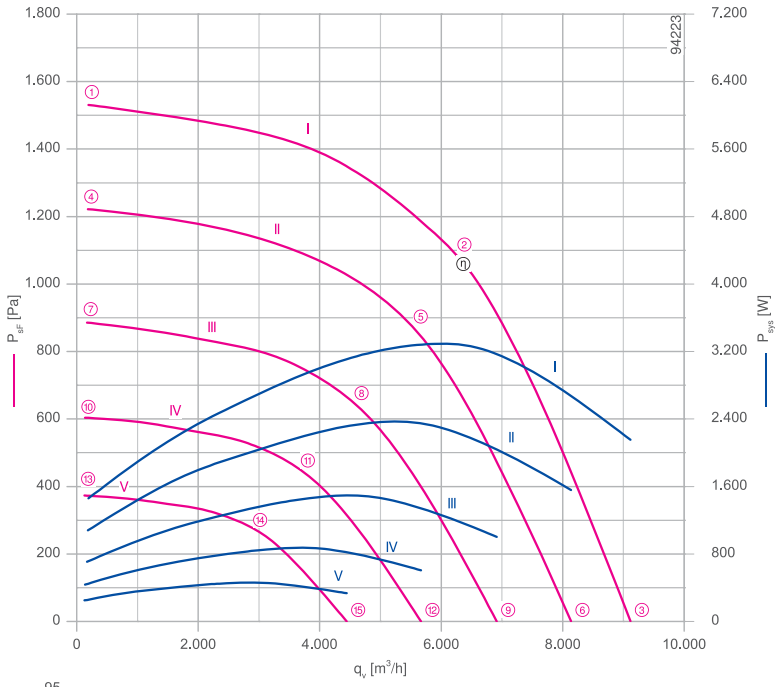
for three phase alternating current, 200-240 V

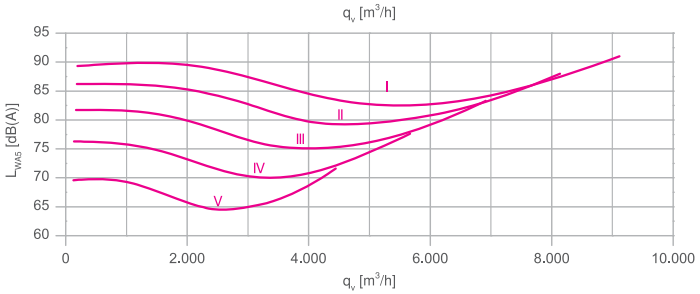
R H 4 0 C - Z I D

Description

Motor technology: EC
Rated voltage U: **3~200-240 V***
Rated frequency f: **50/60 Hz***
Motor input power P: **3.30 kW***
Rated current I: **10.00-8.40 A***
Rated speed n: **2630 min^{-1}***
Thermal class: **THCL155***
Min. permitted ambient temperature t_R: -20 °C
Max. permitted ambient temperature t_R at n_{max}: 50 °C
Electrical connection: integrated Controller
Number of blades : 7
Balancing quality: G 2.5
Protection class: IP54
Motor protection: Integrated active temperature management
Impeller : ZAmid, uncoated, Ultramarine blue
Conformity: ErP 2015, CE
ErP-data
Efficiency η_{statA}: 61.8 %
Efficiency: N_{actual} = 66.9 / N_{target} = 62**
EC controller integrated
*Rated data
**ErP 2015

Characteristic curve



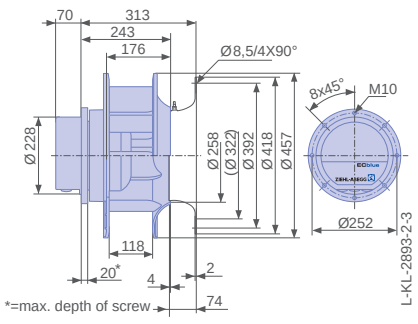


measured with inlet ring, without guard grille according to ISO 5801

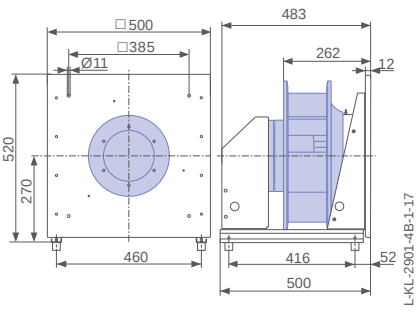
Inlet ring	00401297	Page 450
Connection diagram	1360-401	Page 548
Rubber dampers	30x30 / 40	Page 454
Spring vibration dampers	MSN 4	Page 454
System components		Page 448

Dimensions [mm]

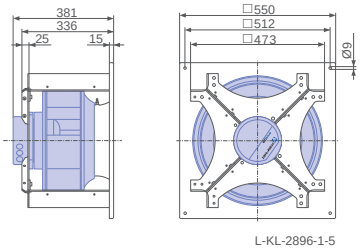
Free-running motor impeller RH
in installation position H/Vu/Vo



Plug fan ER in installation position H



Ventilation unit GR in installation position H

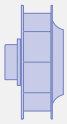
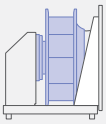
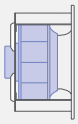
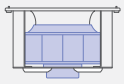


Performance data

Type	Characteristic curve	Speed n [min⁻¹]	Operating point	Current I [A]	Motor input power P_{sys} [W]	Suction side sound power level L_{WA5} [dB]	Maximum ambient temperature t_R [°C]
__40C-ZID.GG.CR	I	2630	①	3.90	1450	89	50
		2630	②	8.60	3300	83	
		2630	③	5.60	2200	91	
	II	2350	④	2.90	1100	86	60
		2350	⑤	6.20	2400	80	
		2350	⑥	4.20	1550	88	
	III	2000	⑦	1.90	700	82	
		2000	⑧	3.90	1500	76	
		2000	⑨	2.70	1000	83	
	IV	1650	⑩	1.20	440	76	
		1650	⑪	2.30	880	70	
		1650	⑫	1.65	600	78	
	V	1300	⑬	0.76	250	70	
		1300	⑭	1.25	460	65	
		1300	⑮	0.96	330	72	

Current values determined at 230V

Fan ordering information

Design	RH*	ER**	GR**	GR**	GR**
Installation position	H/Vu/Vo	H	H	Vo	Vu
					
Type	**RH40C-ZID.GG.CR**	**ER40C-ZID.GG.CR**	**GR40C-ZID.GG.CR**	**GR40C-ZID.GG.CR**	**GR40C-ZID.GG.CR**
Basic electronics					
Article no.	**114605**	**114663/A01**	**114643/H01**	**114643/O01**	**114643/U01**
Premium electronics					
Article no.	**114606**				
Weight [kg]	21.00	34.00	37.00	37.00	37.00

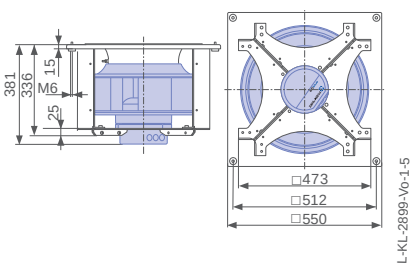
* Inlet ring not included

** Inlet ring integrated

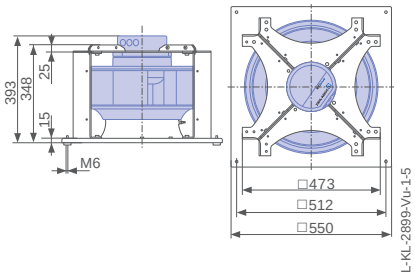
Control technology

Control module	Operating terminal	Expansion module
		
Page 464	Page 476	Page 473

Ventilation unit GR in installation position Vo



Ventilation unit GR in installation position Vu



C p r o - E C b l u e

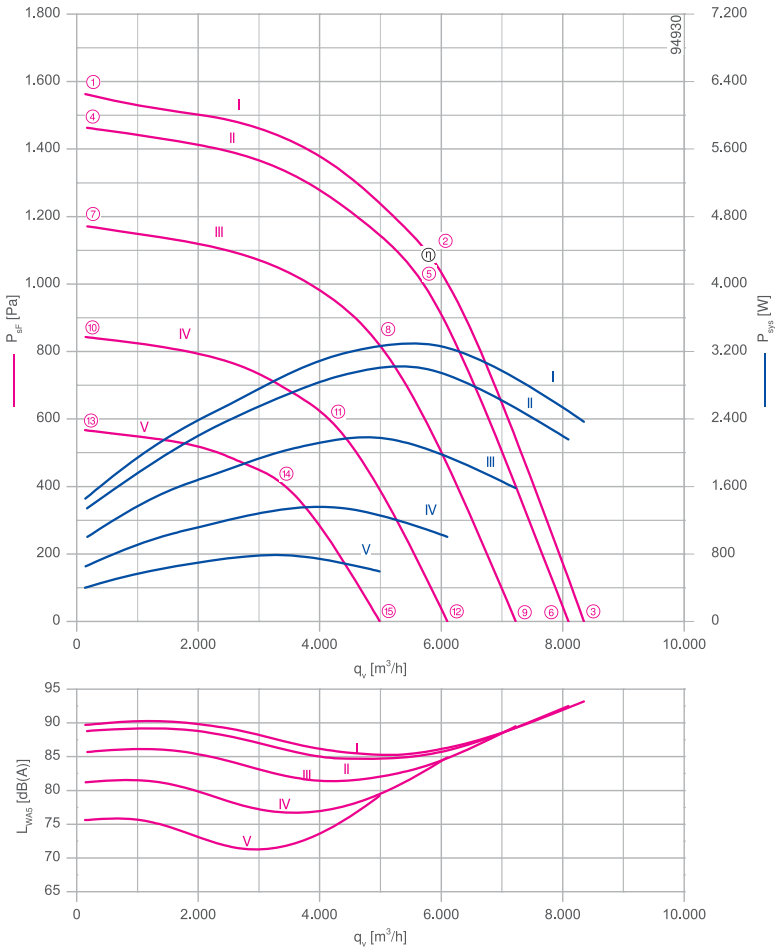
for three phase alternating current, 200-240 V

R H 4 0 C - Z I K

Description

Motor technology: EC
Rated voltage U: **3~200-240 V***
Rated frequency f: **50/60 Hz***
Motor input power P: **3.30 kW***
Rated current I: **10.00-8.40 A***
Rated speed n: **2650 min^{-1}***
Thermal class: **THCL155***
Min. permitted ambient temperature t_R: -20 °C
Max. permitted ambient temperature t_R at n_{max}: 55 °C
Electrical connection: integrated Controller
Number of blades : 7
Balancing quality: G 2.5
Protection class: IP54
Motor protection: Integrated active temperature management
Impeller : ZAmid, uncoated, Ultramarine blue
Conformity: ErP 2015, CE
ErP-data
Efficiency η_{statA}: 57.5 %
Efficiency: N_{actual} = 62.6 / N_{target} = 62**
EC controller integrated
*Rated data
**ErP 2015

Characteristic curve

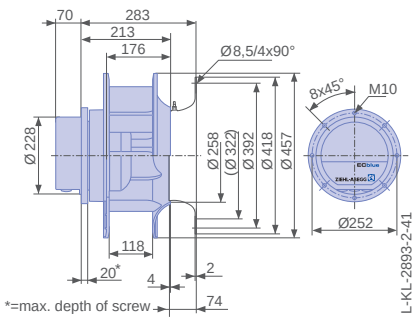


measured with inlet ring, without guard grille according to ISO 5801

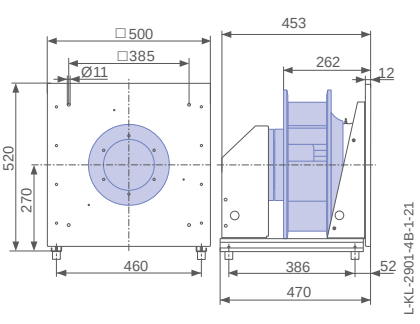
Inlet ring	00401297	Page 450
Connection diagram	1360-401	Page 548
Rubber dampers	30x30 / 40	Page 454
Spring vibration dampers	MSN 4	Page 454
System components		Page 448

Dimensions [mm]

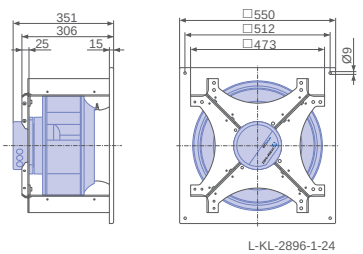
Free-running motor impeller RH
in installation position H/Vu/Vo



Plug fan ER in installation position H



Ventilation unit GR in installation position H

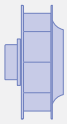
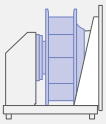
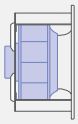
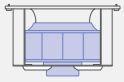


Performance data

Type	Characteristic curve	Speed n [min⁻¹]	Operating point	Current I [A]	Motor input power P_{sys} [W]	Suction side sound power level L_{WA5} [dB]	Maximum ambient temperature t_R [°C]
__40C-ZIK.GG.CR	I	2650	①	3.80	1450	90	55
		2650	②	8.80	3300	85	
		2650	③	6.20	2400	93	
	II	2570	④	3.60	1350	89	60
		2570	⑤	8.00	3000	85	
		2570	⑥	5.60	2200	93	
	III	2300	⑦	2.70	1000	86	
		2300	⑧	5.80	2200	82	
		2300	⑨	4.20	1600	90	
	IV	1950	⑩	1.75	660	81	
		1950	⑪	3.60	1350	77	
		1950	⑫	2.70	1000	85	
	V	1600	⑬	1.10	400	76	
		1600	⑭	2.10	780	72	
		1600	⑮	1.60	600	79	

Current values determined at 230V

Fan ordering information

Design	RH*	ER**	GR**	GR**	GR**
Installation position	H/Vu/Vo	H	H	Vo	Vu
					
Type	**RH40C-ZIK.GG.CR**	**ER40C-ZIK.GG.CR**	**GR40C-ZIK.GG.CR**	**GR40C-ZIK.GG.CR**	**GR40C-ZIK.GG.CR**
Basic electronics					
Article no.	**114601**	**114661/A01**	**114641/H01**	**114641/O01**	**114641/U01**
Premium electronics					
Article no.	**114602**				
Weight [kg]	20.00	33.00	36.00	36.00	36.00

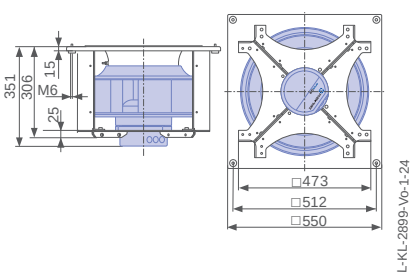
* Inlet ring not included

** Inlet ring integrated

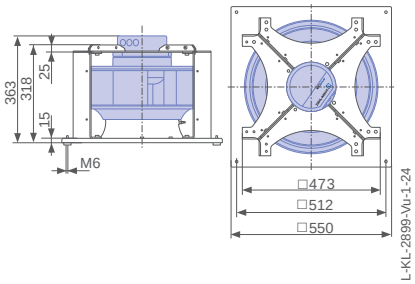
Control technology

Control module	Operating terminal	Expansion module
		
Page 464	Page 476	Page 473

Ventilation unit GR in installation position Vo



Ventilation unit GR in installation position Vu



C p r o - E C b l u e

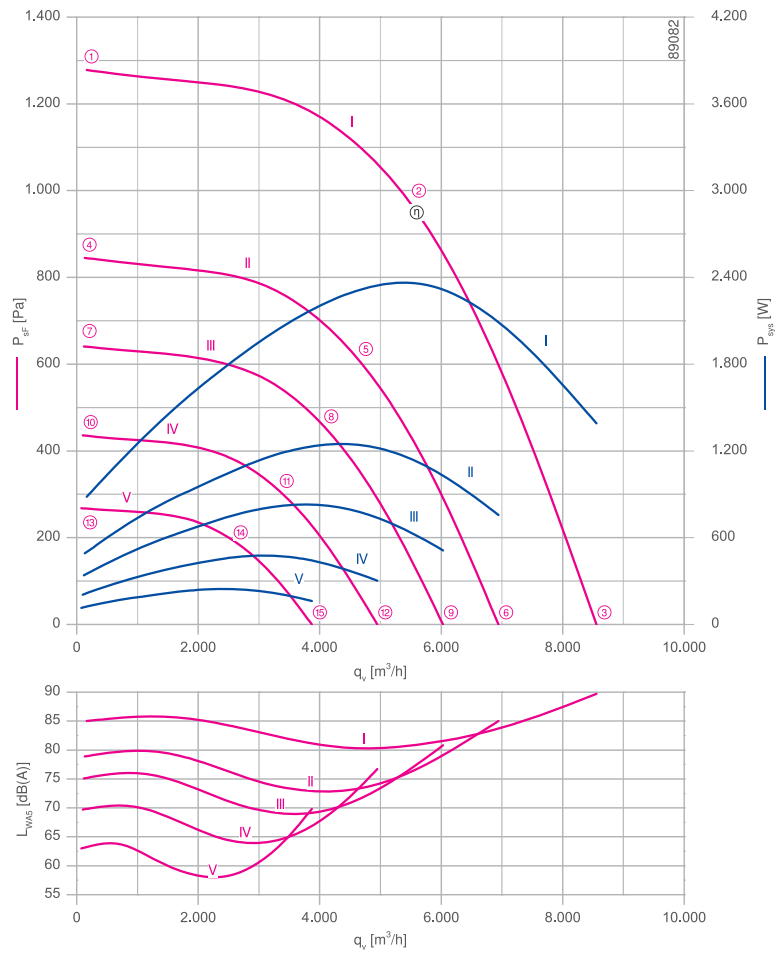
for three phase alternating current, 380-480 V

R H 4 0 C - Z I D

Description

Motor technology: EC
Rated voltage U: **3~380-480 V***
Rated frequency f: **50/60 Hz***
Motor input power P: **2.40 kW***
Rated current I: **3.90-3.10 A***
Rated speed n: **2400 min^{-1}***
Thermal class: **THCL155***
Min. permitted ambient temperature t_R: -20 °C
Max. permitted ambient temperature t_R at n_{max}: 40 °C
Electrical connection: integrated Controller
Number of blades : 7
Balancing quality: G 2.5
Protection class: IP54
Motor protection: Integrated active temperature management
Impeller : ZAmid, uncoated, Ultramarine blue
Conformity: ErP 2015, CE
ErP-data
Efficiency η_{statA}: 70.3 %
Efficiency: N_{actual} = 79.8 / N_{target} = 62**
EC controller integrated
*Rated data
**ErP 2015

Characteristic curve

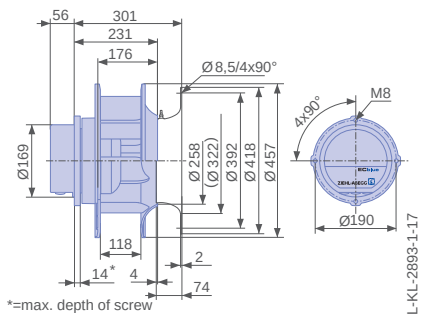


measured with inlet ring, without guard grille according to ISO 5801

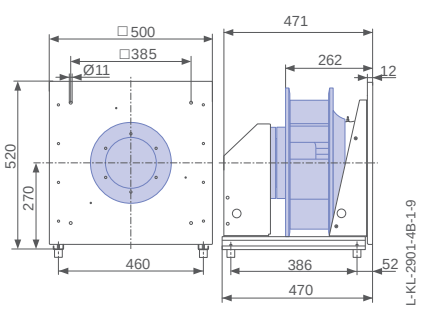
Inlet ring	00401297	Page 450
Connection diagram	1360-401	Page 548
Rubber dampers	30x30 / 40	Page 454
Spring vibration dampers	MSN 4	Page 454
System components		Page 448

Dimensions [mm]

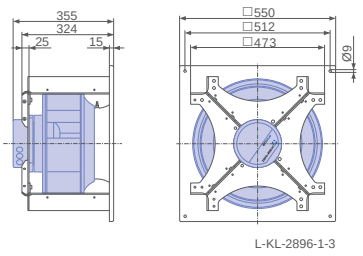
Free-running motor impeller RH
in installation position H/Vu/Vo



Plug fan ER in installation position H



Ventilation unit GR in installation position H

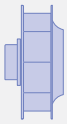
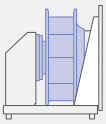
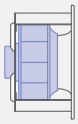
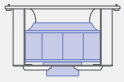


Performance data

Type	Characteristic curve	Speed n [min⁻¹]	Operating point	Current I [A]	Motor input power P_{sys} [W]	Suction side sound power level L_{WA5} [dB]	Maximum ambient temperature t_R [°C]
__40C-ZID.DC.CR	I	2400	①	1.45	880	85	40
		2400	②	3.70	2400	81	
		2400	③	2.20	1400	90	
	II	2300	④	1.30	780	84	60
		2300	⑤	3.20	2100	77	
		2300	⑥	1.95	1200	89	
	III	1950	⑦	0.90	500	79	
		1950	⑧	2.00	1250	73	
		1950	⑨	1.30	760	85	
	IV	1700	⑩	0.68	340	75	
		1700	⑪	1.40	820	69	
		1700	⑫	0.92	520	81	
	V	1400	⑬	0.50	210	70	
		1400	⑭	0.88	480	64	
		1400	⑮	0.64	300	77	

Current values determined at 400V

Fan ordering information

Design	RH*	ER**	GR**	GR**	GR**
Installation position	H/Vu/Vo	H	H	Vo	Vu
					
Type	**RH40C-ZID.DC.CR**	**ER40C-ZID.DC.CR**	**GR40C-ZID.DC.CR**	**GR40C-ZID.DC.CR**	**GR40C-ZID.DC.CR**
Basic electronics					
Article no.	**114512**	**114595/A01**	**114547/H01**	**114547/O01**	**114547/U01**
Premium electronics					
Article no.	**114513**				
Weight [kg]	12.00	25.00	28.00	29.00	29.00

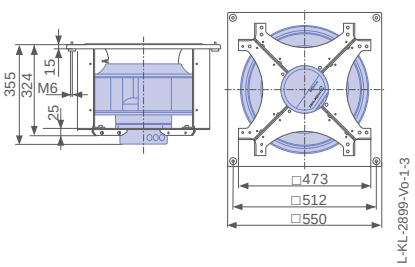
* Inlet ring not included

** Inlet ring integrated

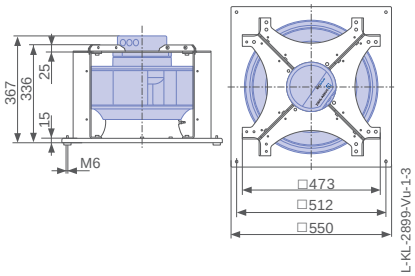
Control technology

Control module	Operating terminal	Expansion module
		
Page 464	Page 476	Page 473

Ventilation unit GR in installation position Vo



Ventilation unit GR in installation position Vu



C p r o - E C b l u e

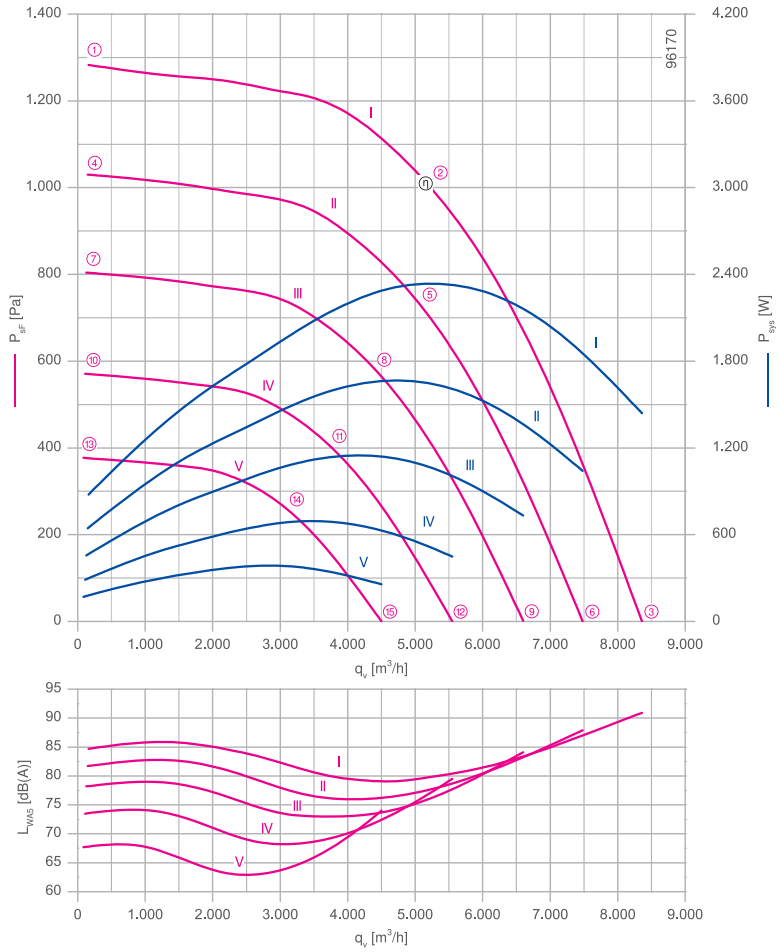
for three phase alternating current, 380-480 V

R H 4 0 C - Z I K

Description

Motor technology: EC
Rated voltage U: **3~380-480 V***
Rated frequency f: **50/60 Hz***
Motor input power P: **2.30 kW***
Rated current I: **3.70-2.90 A***
Rated speed n: **2400 min^{-1}***
Thermal class: **THCL155***
Min. permitted ambient temperature t_R: -20 °C
Max. permitted ambient temperature t_R at n_{max}: 40 °C
Electrical connection: integrated Controller
Number of blades : 7
Balancing quality: G 2.5
Protection class: IP54
Motor protection: Integrated active temperature management
Impeller : ZAmid, uncoated, Ultramarine blue
Conformity: ErP 2015, CE
ErP-data
Efficiency η_{statA}: 67.7 %
Efficiency: N_{actual} = 74.3 / N_{target} = 62**
EC controller integrated
*Rated data
**ErP 2015

Characteristic curve

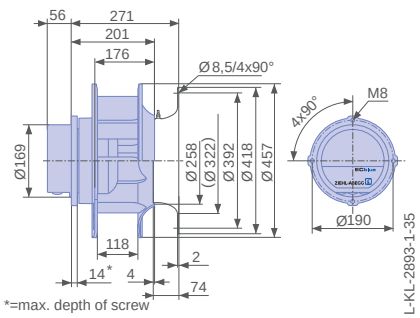


measured with inlet ring, without guard grille according to ISO 5801

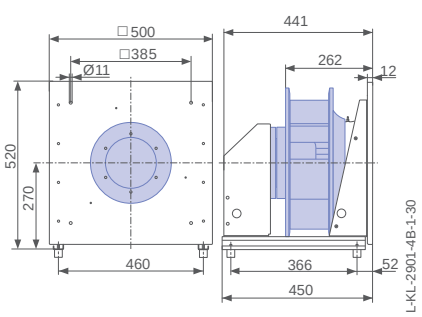
Inlet ring	00401297	Page 450
Connection diagram	1360-401	Page 548
Rubber dampers	30x30 / 40	Page 454
Spring vibration dampers	MSN 4	Page 454
System components		Page 448

Dimensions [mm]

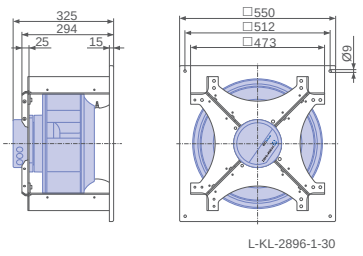
Free-running motor impeller RH
in installation position H/Vu/Vo



Plug fan ER in installation position H



Ventilation unit GR in installation position H

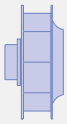
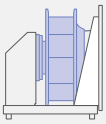
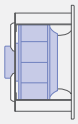
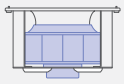


Performance data

Type	Characteristic curve	Speed n [min⁻¹]	Operating point	Current I [A]	Motor input power P_{sys} [W]	Suction side sound power level L_{WA5} [dB]	Maximum ambient temperature t_R [°C]
__40C-ZIK.DC.CR	I	2400	①	1.40	880	85	40
		2400	②	3.50	2300	80	
		2400	③	2.20	1450	91	
	II	2150	④	1.10	640	82	60
		2150	⑤	2.50	1650	77	
		2160	⑥	1.65	1050	88	
	III	1900	⑦	0.86	460	78	
		1900	⑧	1.80	1150	73	
		1900	⑨	1.20	740	84	
	IV	1600	⑩	0.64	290	74	
		1600	⑪	1.15	700	69	
		1600	⑫	0.84	440	80	
	V	1300	⑬	0.44	170	68	
		1300	⑭	0.76	390	64	
		1300	⑮	0.58	260	74	

Current values determined at 400V

Fan ordering information

Design	RH*	ER**	GR**	GR**	GR**
Installation position	H/Vu/Vo	H	H	Vo	Vu
					
Type	**RH40C-ZIK.DC.CR**	**ER40C-ZIK.DC.CR**	**GR40C-ZIK.DC.CR**	**GR40C-ZIK.DC.CR**	**GR40C-ZIK.DC.CR**
Basic electronics					
Article no.	**114506**	**114592/A01**	**114544/H01**	**114544/O01**	**114544/U01**
Premium electronics					
Article no.	**114507**				
Weight [kg]	12.00	25.00	28.00	28.00	28.00

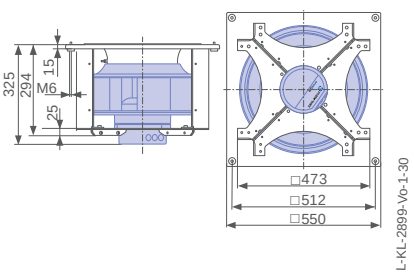
* Inlet ring not included

** Inlet ring integrated

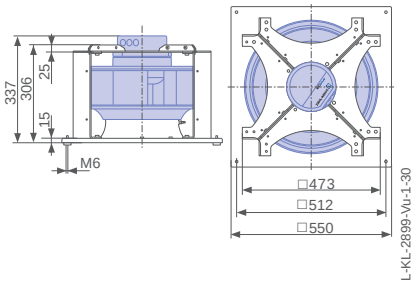
Control technology

Control module	Operating terminal	Expansion module
		
Page 464	Page 476	Page 473

Ventilation unit GR in installation position Vo



Ventilation unit GR in installation position Vu



C p r o - E C b l u e

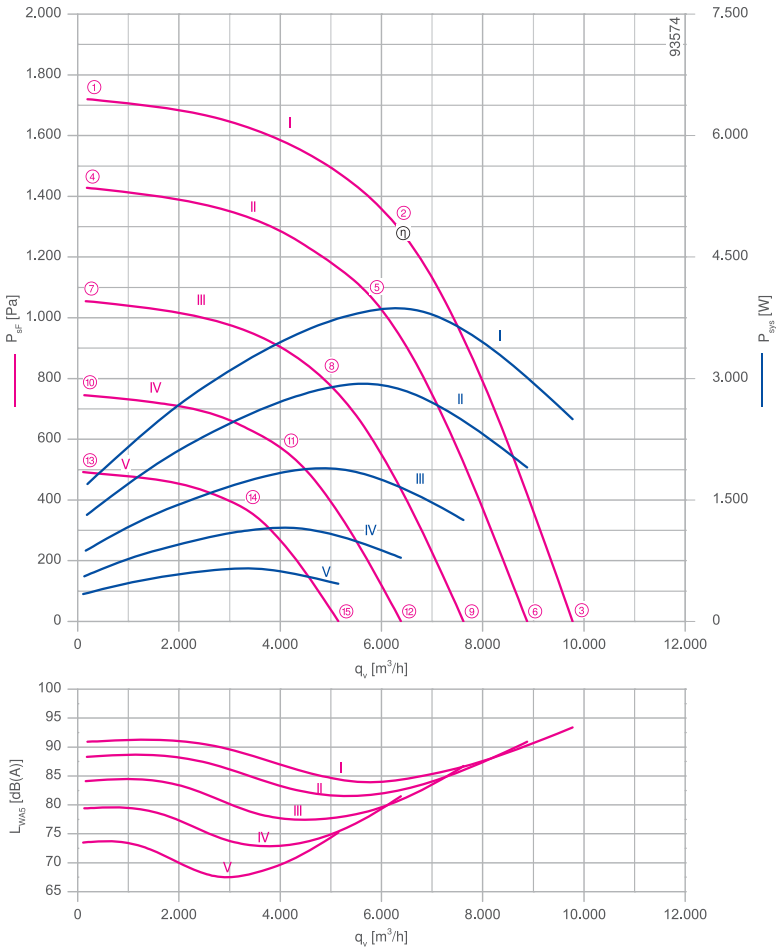
for three phase alternating current, 380-480 V

R H 4 0 C - Z I D

Description

Motor technology: EC
Rated voltage U: **3~380-480 V***
Rated frequency f: **50/60 Hz***
Motor input power P: **3.90 kW***
Rated current I: **6.20-5.00 A***
Rated speed n: **2810 min^{-1}***
Thermal class: **THCL155***
Min. permitted ambient temperature t_R: -20 °C
Max. permitted ambient temperature t_R at n_{max}: 55 °C
Electrical connection: integrated Controller
Number of blades : 7
Balancing quality: G 2.5
Protection class: IP54
Motor protection: Integrated active temperature management
Impeller : ZAmid, uncoated, Ultramarine blue
Conformity: ErP 2015, CE
ErP-data
Efficiency η_{statA}: 63.3 %
Efficiency: N_{actual} = 67.7 / N_{target} = 62**
EC controller integrated
*Rated data
**ErP 2015

Characteristic curve

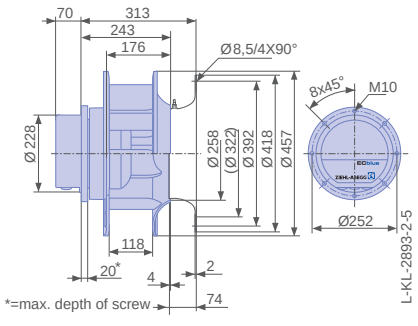


measured with inlet ring, without guard grille according to ISO 5801

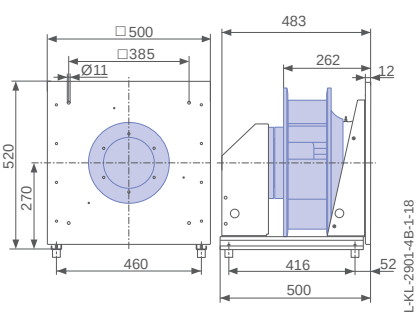
Inlet ring	00401297	Page 450
Connection diagram	1360-401	Page 548
Rubber dampers	30x30 / 40	Page 454
Spring vibration dampers	MSN 4	Page 454
System components		Page 448

Dimensions [mm]

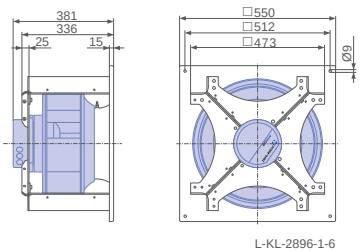
Free-running motor impeller RH
in installation position H/Vu/Vo



Plug fan ER in installation position H



Ventilation unit GR in installation position H

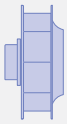
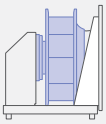
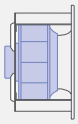
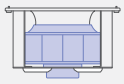


Performance data

Type	Characteristic curve	Speed n [min⁻¹]	Operating point	Current I [A]	Motor input power P_{sys} [W]	Suction side sound power level L_{WA5} [dB]	Maximum ambient temperature t_R [°C]
__40C-ZID.GG.CR	I	2810	①	2.70	1700	91	55
		2810	②	6.00	3900	84	
		2810	③	3.80	2500	93	
	II	2560	④	2.10	1300	88	60
		2560	⑤	4.60	2900	82	
		2560	⑥	2.90	1900	91	
	III	2200	⑦	1.45	880	84	
		2200	⑧	2.90	1900	78	
		2200	⑨	2.00	1250	87	
	IV	1850	⑩	1.00	560	79	
		1850	⑪	1.85	1150	73	
		1850	⑫	1.30	780	82	
	V	1500	⑬	0.70	340	74	
		1500	⑭	1.15	660	68	
		1500	⑮	0.88	460	75	

Current values determined at 400V

Fan ordering information

Design	RH*	ER**	GR**	GR**	GR**
Installation position	H/Vu/Vo	H	H	Vo	Vu
					
Type	**RH40C-ZID.GG.CR**	**ER40C-ZID.GG.CR**	**GR40C-ZID.GG.CR**	**GR40C-ZID.GG.CR**	**GR40C-ZID.GG.CR**
Basic electronics					
Article no.	**114607**	**114664/A01**	**114644/H01**	**114644/O01**	**114644/U01**
Premium electronics					
Article no.	**114608**				
Weight [kg]	21.00	34.00	37.00	37.00	37.00

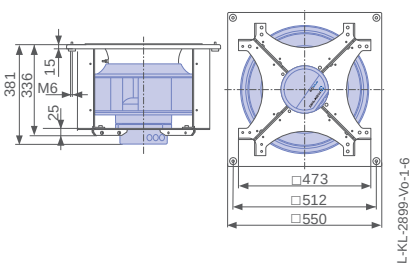
* Inlet ring not included

** Inlet ring integrated

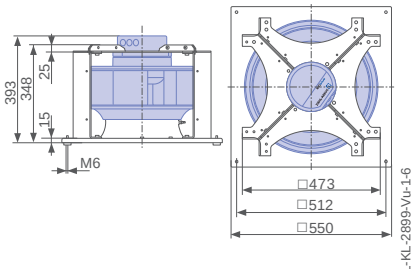
Control technology

Control module	Operating terminal	Expansion module
		
Page 464	Page 476	Page 473

Ventilation unit GR in installation position Vo



Ventilation unit GR in installation position Vu

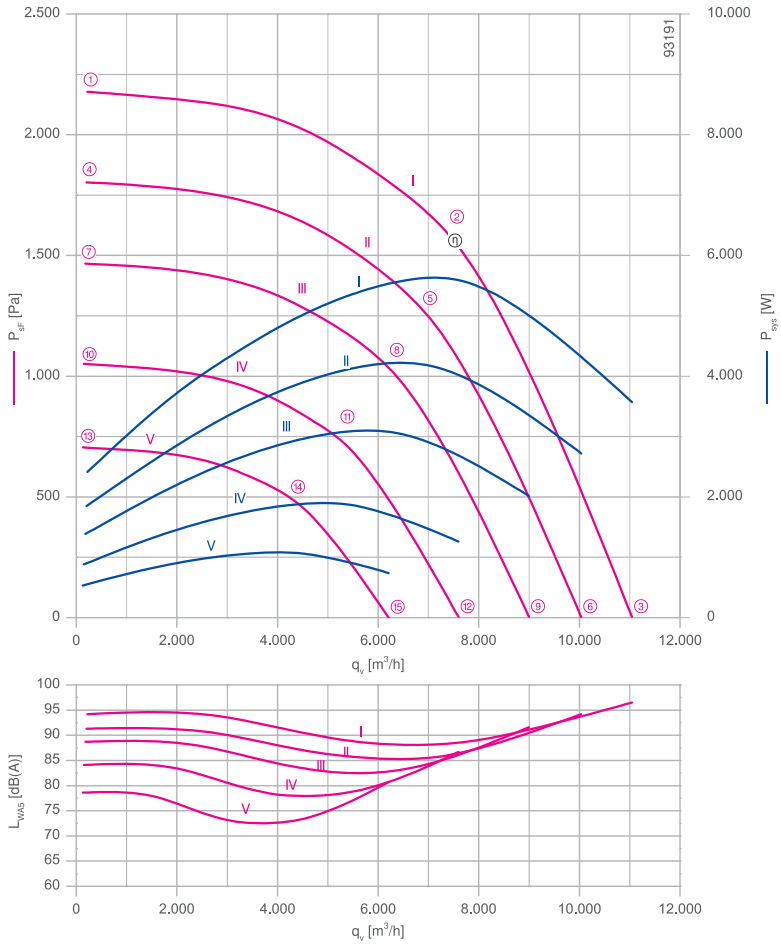


C p r o - E C b l u e

for three phase alternating current, 380-480 V

R H 4 0 C - Z I D

Characteristic curve



measured with inlet ring, without guard grille according to ISO 5801

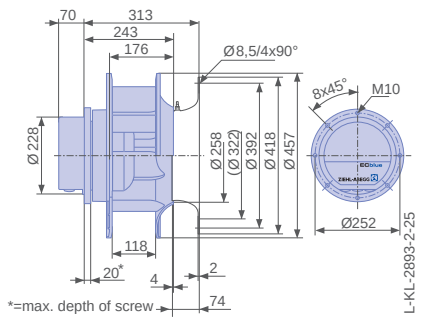
Description

Motor technology: EC
Rated voltage U: **3~380-480 V***
Rated frequency f: **50/60 Hz***
Motor input power P: **5,60 kW***
Rated current I: **9.00-7.10 A***
Rated speed n: **3170 min^{-1}***
Thermal class: **THCL155***
Min. permitted ambient temperature t_R: -20 °C
Max. permitted ambient temperature t_R at n_{max}: 40 °C
Electrical connection: integrated Controller
Number of blades : 7
Balancing quality: G 2.5
Protection class: IP54
Motor protection: Integrated active temperature management
Impeller : ZAmid, uncoated, Ultramarine blue
Conformity: ErP 2015, CE
ErP-data
Efficiency η_{statA}: 61.8 %
Efficiency: N_{actual} = 64.4 / N_{target} = 62**
EC controller integrated
*Rated data
**ErP 2015

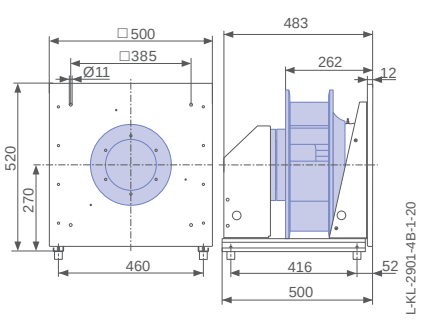
Inlet ring	00401297	Page 450
Connection diagram	1360-401	Page 548
Rubber dampers	30x30 / 40	Page 454
Spring vibration dampers	MSN 4	Page 454
System components		Page 448

Dimensions [mm]

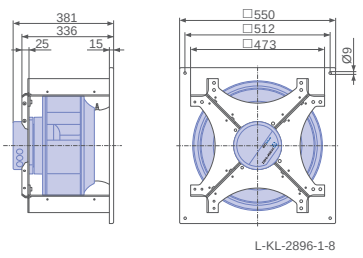
Free-running motor impeller RH
in installation position H/Vu/Vo



Plug fan ER in installation position H



Ventilation unit GR in installation position H

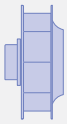
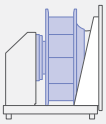
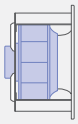
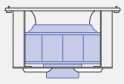


Performance data

Type	Characteristic curve	Speed n [min⁻¹]	Operating point	Current I [A]	Motor input power P_{sys} [W]	Suction side sound power level L_{WA5} [dB]	Maximum ambient temperature t_R [°C]
__40C-ZID.GG.CR	I	3170	①	3.70	2400	94	40
		3170	②	8.60	5600	88	
		3170	③	5.40	3600	97	
	II	2880	④	2.90	1850	91	
		2880	⑤	6.40	4200	85	
		2880	⑥	4.20	2700	94	
	III	2600	⑦	2.20	1400	89	60
		2600	⑧	4.80	3100	83	
		2600	⑨	3.10	2000	92	
	IV	2200	⑩	1.50	880	84	
		2200	⑪	2.90	1900	78	
		2200	⑫	2.00	1250	87	
	V	1800	⑬	1.00	540	79	
		1800	⑭	1.75	1100	73	
		1800	⑮	1.30	740	81	

Current values determined at 400V

Fan ordering information

Design	RH*	ER**	GR**	GR**	GR**
Installation position	H/Vu/Vo	H	H	Vo	Vu
					
Type	**RH40C-ZID.GG.CR**	**ER40C-ZID.GG.CR**	**GR40C-ZID.GG.CR**	**GR40C-ZID.GG.CR**	**GR40C-ZID.GG.CR**
Basic electronics					
Article no.	**114703**	**114729/A01**	**114720/H01**	**114720/O01**	**114720/U01**
Premium electronics					
Article no.	**114704**				
Weight [kg]	21.00	34.00	37.00	37.00	37.00

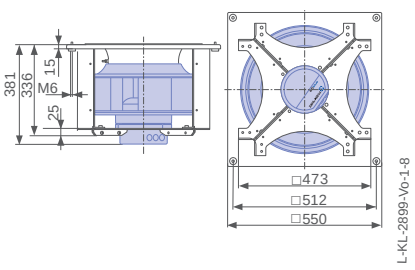
* Inlet ring not included

** Inlet ring integrated

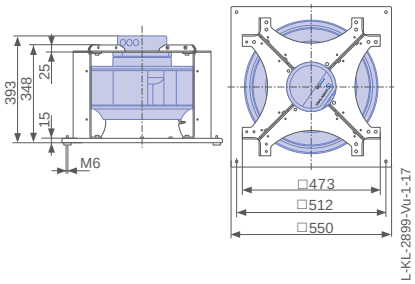
Control technology

Control module	Operating terminal	Expansion module
		
Page 464	Page 476	Page 473

Ventilation unit GR in installation position Vo



Ventilation unit GR in installation position Vu



C p r o - E C b l u e

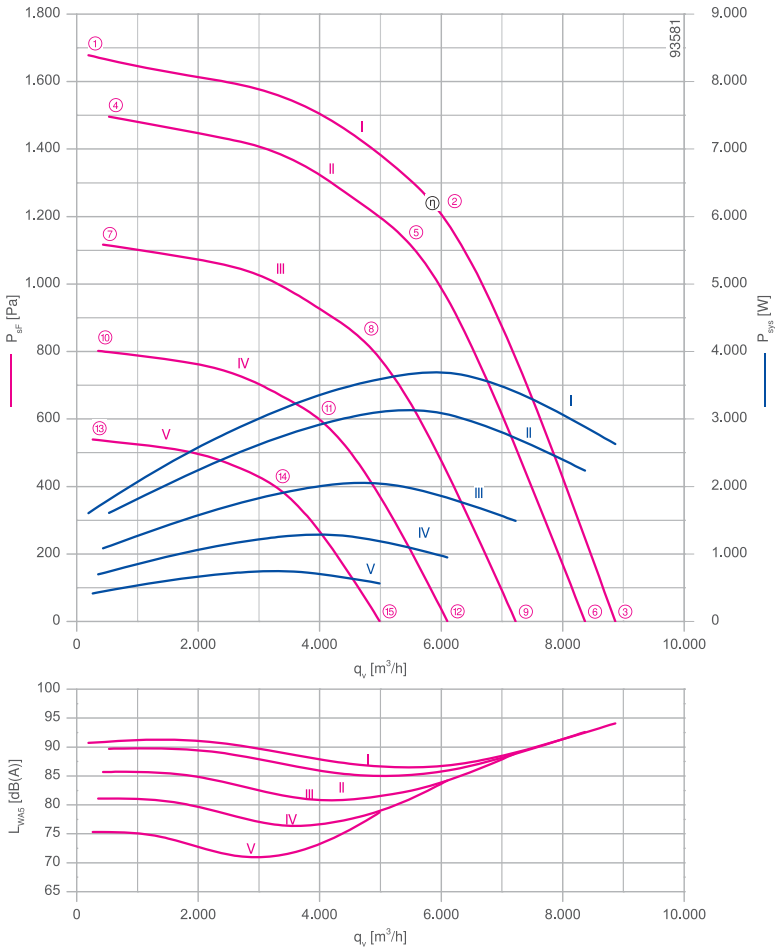
for three phase alternating current, 380-480 V

R H 4 0 C - Z I K

Description

Motor technology: EC
Rated voltage U: **3~380-480 V***
Rated frequency f: **50/60 Hz***
Motor input power P: **3.70 kW***
Rated current I: **6.00-4.80 A***
Rated speed n: **2810 min^{-1}***
Thermal class: **THCL155***
Min. permitted ambient temperature t_R: -20 °C
Max. permitted ambient temperature t_R at n_{max}: 55 °C
Electrical connection: integrated Controller
Number of blades : 7
Balancing quality: G 2.5
Protection class: IP54
Motor protection: Integrated active temperature management
Impeller : ZAmid, uncoated, Ultramarine blue
Conformity: ErP 2015, CE
ErP-data
Efficiency η_{statA}: 58.7 %
Efficiency: N_{actual} = 63.3 / N_{target} = 62**
EC controller integrated
*Rated data
**ErP 2015

Characteristic curve

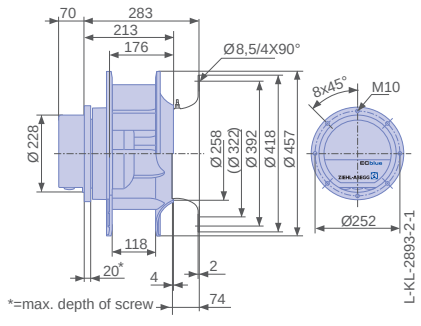


measured with inlet ring, without guard grille according to ISO 5801

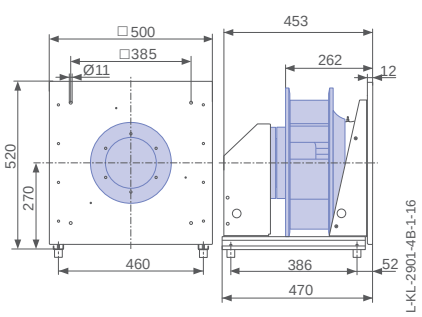
Inlet ring	00401297	Page 450
Connection diagram	1360-401	Page 548
Rubber dampers	30x30 / 40	Page 454
Spring vibration dampers	MSN 4	Page 454
System components		Page 448

Dimensions [mm]

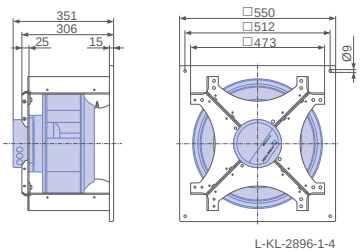
Free-running motor impeller RH
in installation position H/Vu/Vo



Plug fan ER in installation position H



Ventilation unit GR in installation position H

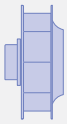
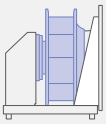
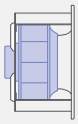
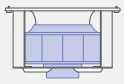


Performance data

Type	Characteristic curve	Speed n [min⁻¹]	Operating point	Current I [A]	Motor input power P_{sys} [W]	Suction side sound power level L_{WA5} [dB]	Maximum ambient temperature t_R [°C]
__40C-ZIK.GG.CR	I	2810	①	2.50	1600	91	55
		2810	②	5.60	3700	87	
		2810	③	4.00	2600	94	
	II	2660	④	2.50	1600	90	60
		2660	⑤	4.80	3100	85	
		2660	⑥	3.40	2200	93	
	III	2300	⑦	1.70	1100	86	
		2300	⑧	3.10	2100	81	
		2300	⑨	2.30	1500	89	
	IV	1950	⑩	1.20	700	81	
		1950	⑪	2.00	1300	77	
		1950	⑫	1.55	960	84	
	V	1600	⑬	0.82	420	75	
		1600	⑭	1.25	740	71	
		1600	⑮	1.00	560	79	

Current values determined at 400V

Fan ordering information

Design	RH*	ER**	GR**	GR**	GR**
Installation position	H/Vu/Vo	H	H	Vo	Vu
					
Type	**RH40C-ZIK.GG.CR**	**ER40C-ZIK.GG.CR**	**GR40C-ZIK.GG.CR**	**GR40C-ZIK.GG.CR**	**GR40C-ZIK.GG.CR**
Basic electronics					
Article no.	**114603**	**114662/A01**	**114642/H01**	**114642/O01**	**114642/U01**
Premium electronics					
Article no.	**114604**				
Weight [kg]	20.00	33.00	36.00	36.00	36.00

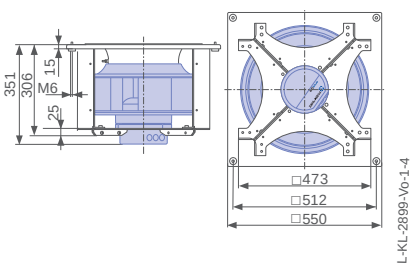
* Inlet ring not included

** Inlet ring integrated

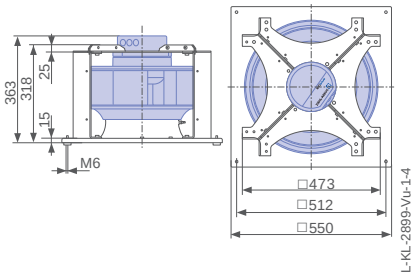
Control technology

Control module	Operating terminal	Expansion module
		
Page 464	Page 476	Page 473

Ventilation unit GR in installation position Vo



Ventilation unit GR in installation position Vu



C p r o - E C b l u e

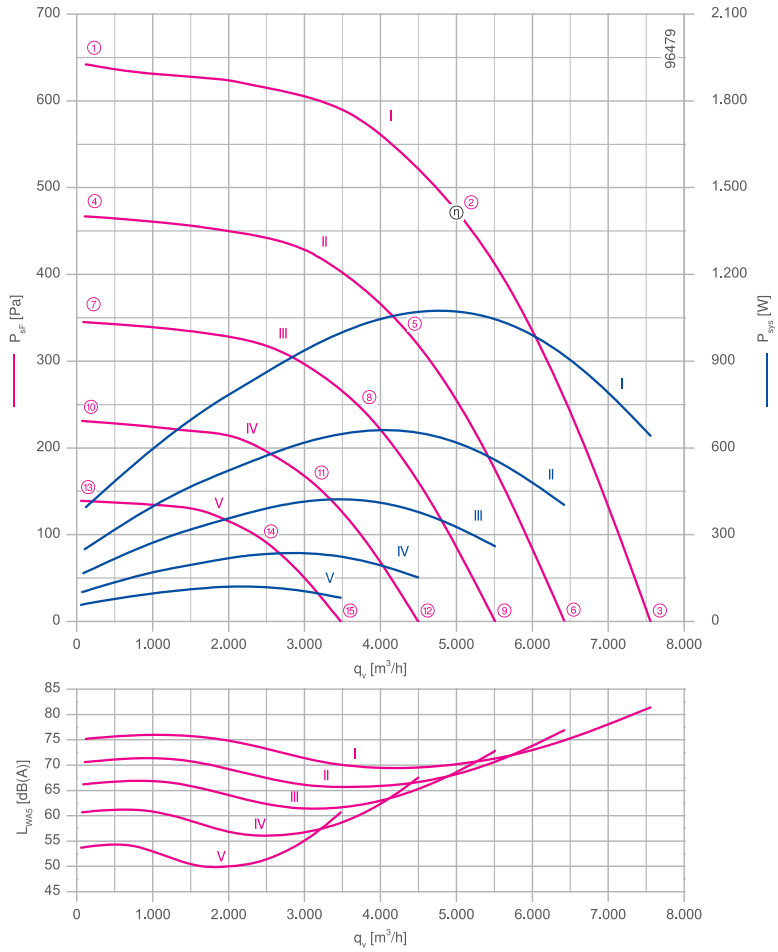
for single phase alternating current, 200-277 V

R H 4 5 C - Z I K

Description

Motor technology: EC
Rated voltage U: **1~200-277 V***
Rated frequency f: **50/60 Hz***
Motor input power P: **1.05 kW***
Rated current I: **5.80-4.20 A***
Rated speed n: **1500 min^{-1}***
Thermal class: **THCL155***
Min. permitted ambient temperature t_R: -20 °C
Max. permitted ambient temperature t_R at n_{max}: 45 °C
Electrical connection: integrated Controller
Number of blades : 7
Balancing quality: G 2.5
Protection class: IP54
Motor protection: Integrated active temperature management
Impeller : ZAmid, uncoated, Ultramarine blue
Conformity: ErP 2015, CE
ErP-data
Efficiency η_{statA}: 68.3 %
Efficiency: N_{actual} = 78.4 / N_{target} = 62**
EC controller integrated
*Rated data
**ErP 2015

Characteristic curve

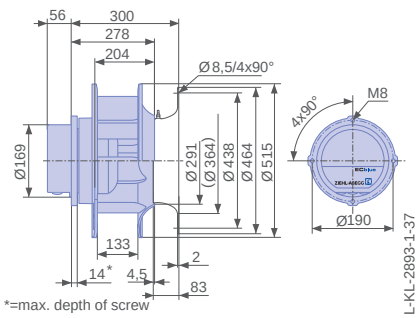


measured with inlet ring, without guard grille according to ISO 5801

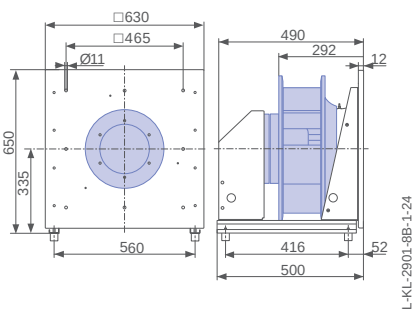
Inlet ring	00401298	Page 450
Connection diagram	1360-401	Page 548
Rubber dampers	30x30 / 40	Page 454
Spring vibration dampers	MSN 4	Page 454
System components		Page 448

Dimensions [mm]

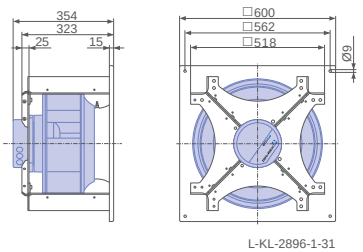
Free-running motor impeller RH
in installation position H/Vu/Vo



Plug fan ER in installation position H



Ventilation unit GR in installation position H

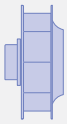
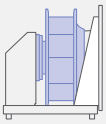
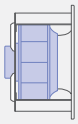
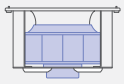


Performance data

Type	Characteristic curve	Speed n [min⁻¹]	Operating point	Current I [A]	Motor input power P_{sys} [W]	Suction side sound power level L_{WA5} [dB]	Maximum ambient temperature t_R [°C]
__45C-ZIK.DC.CR	I	1500	①	1.95	400	75	45
		1500	②	5.00	1050	70	
		1500	③	3.10	640	81	
	II	1280	④	1.15	250	71	60
		1280	⑤	3.20	660	66	
		1280	⑥	1.95	400	77	
	III	1100	⑦	0.78	170	66	
		1100	⑧	2.10	420	62	
		1100	⑨	1.20	260	73	
	IV	900	⑩	0.52	100	61	
		900	⑪	1.10	240	57	
		900	⑫	0.72	150	68	
	V	700	⑬	0.34	60	54	
		700	⑭	0.58	120	51	
		700	⑮	0.44	80	61	

Current values determined at 230V

Fan ordering information

Design	RH*	ER**	GR**	GR**	GR**
Installation position	H/Vu/Vo	H	H	Vo	Vu
					
Type	**RH45C-ZIK.DC.CR**	**ER45C-ZIK.DC.CR**	**GR45C-ZIK.DC.CR**	**GR45C-ZIK.DC.CR**	**GR45C-ZIK.DC.CR**
Basic electronics					
Article no.	**114514**	**114596/A01**	**114548/H01**	**114548/O01**	**114548/U01**
Premium electronics					
Article no.	**114515**				
Weight [kg]	13.00	33.00	32.00	32.00	32.00

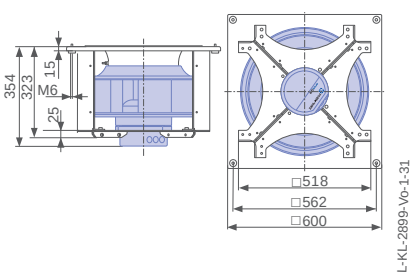
* Inlet ring not included

** Inlet ring integrated

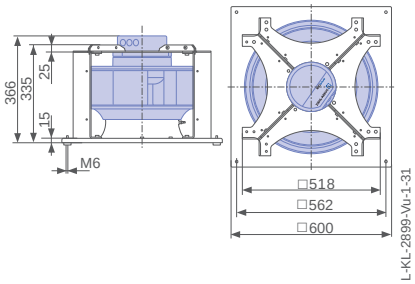
Control technology

Control module	Operating terminal	Expansion module
		
Page 464	Page 476	Page 473

Ventilation unit GR in installation position Vo



Ventilation unit GR in installation position Vu



C p r o - E C b l u e

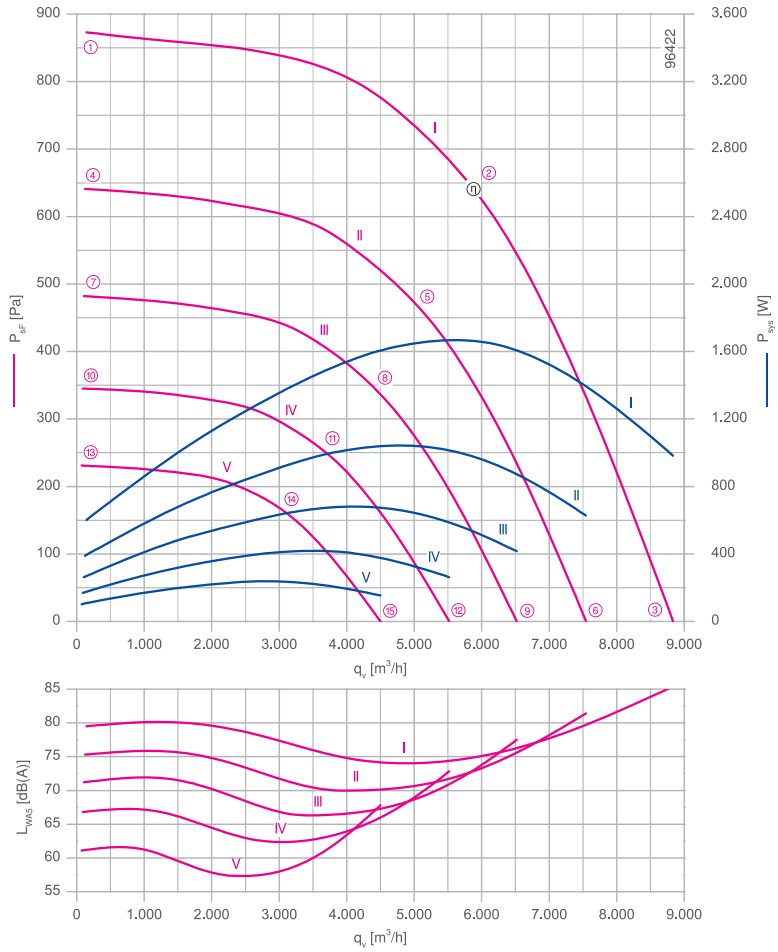
for three phase alternating current, 200-240 V

R H 4 5 C - Z I K

Description

Motor technology: EC
Rated voltage U: **3~200-240 V***
Rated frequency f: **50/60 Hz***
Motor input power P: **1.65 kW***
Rated current I: **5.20-3.80 A***
Rated speed n: **1750 min^{-1}***
Thermal class: **THCL155***
Min. permitted ambient temperature t_R: -20 °C
Max. permitted ambient temperature t_R at n_{max}: 40 °C
Electrical connection: integrated Controller
Number of blades : 7
Balancing quality: G 2.5
Protection class: IP54
Motor protection: Integrated active temperature management
Impeller : ZAmid, uncoated, Ultramarine blue
Conformity: ErP 2015, CE
ErP-data
Efficiency η_{statA}: 69.3 %
Efficiency: N_{actual} = 77.5 / N_{target} = 62**
EC controller integrated
*Rated data
**ErP 2015

Characteristic curve

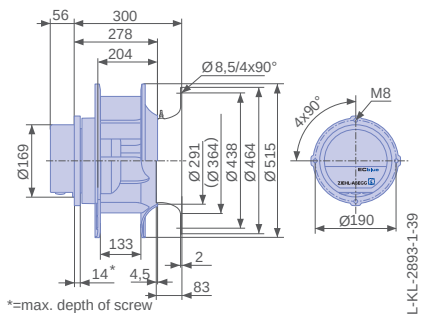


measured with inlet ring, without guard grille according to ISO 5801

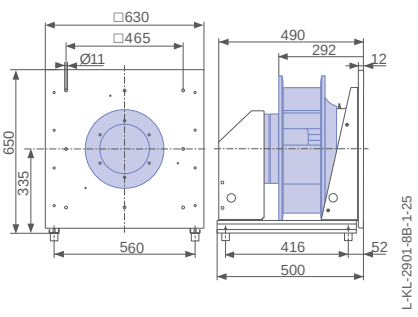
Inlet ring	00401298	Page 450
Connection diagram	1360-401	Page 548
Rubber dampers	30x30 / 40	Page 454
Spring vibration dampers	MSN 4	Page 454
System components		Page 448

Dimensions [mm]

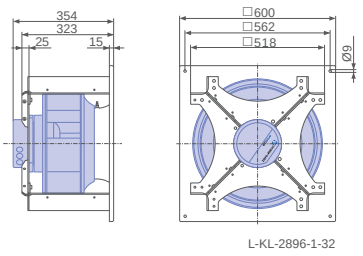
Free-running motor impeller RH
in installation position H/Vu/Vo



Plug fan ER in installation position H



Ventilation unit GR in installation position H

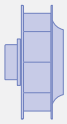
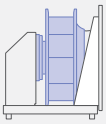
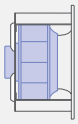
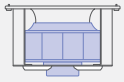


Performance data

Type	Characteristic curve	Speed n [min^{-1}]	Operating point	Current I [A]	Motor input power P_{sys} [W]	Suction side sound power level L_{WA5} [dB]	Maximum ambient temperature t_R [°C]
__45C-ZIK.DC.CR	I	1750	①	1.65	600	80	40
		1750	②	4.40	1650	74	
		1750	③	2.60	980	85	
	II	1500	④	1.10	390	75	60
		1500	⑤	2.80	1050	71	
		1500	⑥	1.70	620	81	
	III	1300	⑦	0.80	260	71	
		1300	⑧	1.85	680	67	
		1300	⑨	1.20	420	78	
	IV	1100	⑩	0.58	170	67	
		1100	⑪	1.20	420	63	
		1100	⑫	0.82	260	73	
	V	900	⑬	0.42	100	61	
		900	⑭	0.74	240	58	
		900	⑮	0.56	150	68	

Current values determined at 230V

Fan ordering information

Design	RH*	ER**	GR**	GR**	GR**
Installation position	H/Vu/Vo	H	H	Vo	Vu
					
Type	**RH45C-ZIK.DC.CR**	**ER45C-ZIK.DC.CR**	**GR45C-ZIK.DC.CR**	**GR45C-ZIK.DC.CR**	**GR45C-ZIK.DC.CR**
Basic electronics					
Article no.	**114516**	**114597/A01**	**114549/H01**	**114549/O01**	**114549/U01**
Premium electronics					
Article no.	**114517**				
Weight [kg]	13.00	33.00	32.00	32.00	32.00

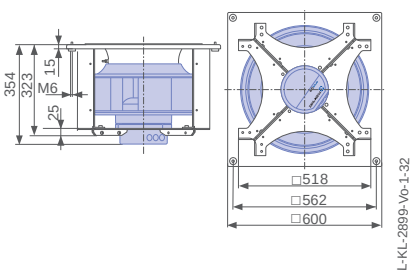
* Inlet ring not included

** Inlet ring integrated

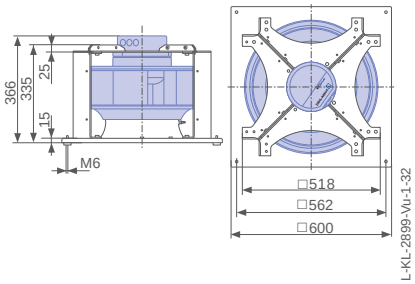
Control technology

Control module	Operating terminal	Expansion module
		
Page 464	Page 476	Page 473

Ventilation unit GR in installation position Vo



Ventilation unit GR in installation position Vu



C p r o - E C b l u e

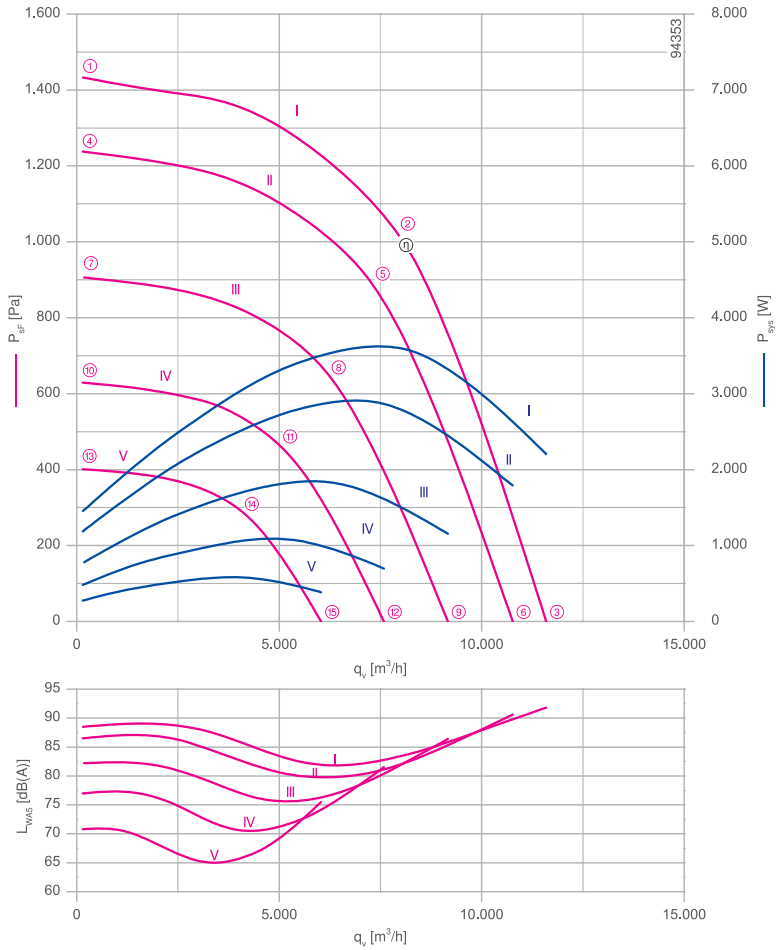
for three phase alternating current, 200-240 V

R H 4 5 C - Z I D

Description

Motor technology: EC
Rated voltage U: **3~200-240 V***
Rated frequency f: **50/60 Hz***
Motor input power P: **3.60 kW***
Rated current I: **11.00-9.20 A***
Rated speed n: **2260 min^{-1}***
Thermal class: **THCL155***
Min. permitted ambient temperature t_R: -20 °C
Max. permitted ambient temperature t_R at n_{max}: 55 °C
Electrical connection: integrated Controller
Number of blades : 7
Balancing quality: G 2.5
Protection class: IP54
Motor protection: Integrated active temperature management
Impeller : ZAmid, uncoated, Ultramarine blue
Conformity: ErP 2015, CE
ErP-data
Efficiency η_{statA}: 67.1 %
Efficiency: N_{actual} = 71.8 / N_{target} = 62**
EC controller integrated
*Rated data
**ErP 2015

Characteristic curve

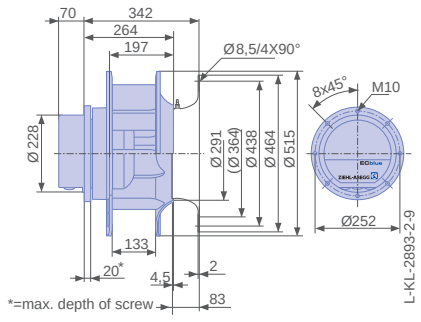


measured with inlet ring, without guard grille according to ISO 5801

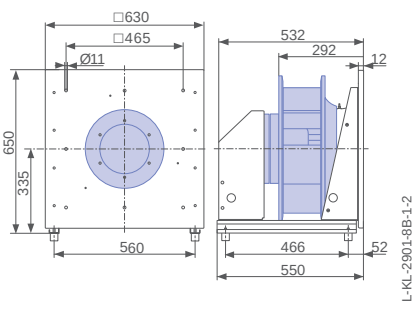
Inlet ring	00401298	Page 450
Connection diagram	1360-401	Page 548
Rubber dampers	30x30 / 40	Page 454
Spring vibration dampers	MSN 5	Page 454
System components		Page 448

Dimensions [mm]

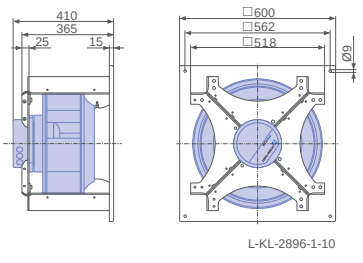
Free-running motor impeller RH
in installation position H/Vu/Vo



Plug fan ER in installation position H



Ventilation unit GR in installation position H

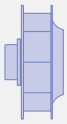
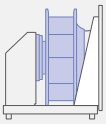
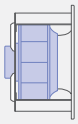
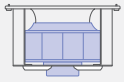


Performance data

Type	Characteristic curve	Speed n [min⁻¹]	Operating point	Current I [A]	Motor input power P_{sys} [W]	Suction side sound power level L_{WA5} [dB]	Maximum ambient temperature t_R [°C]
__45C-ZID.GG.CR	I	2260	①	3.80	1450	89	55
		2260	②	9.60	3600	83	
		2260	③	5.80	2200	92	
	II	2100	④	3.10	1200	87	60
		2100	⑤	7.60	2900	81	
		2100	⑥	4.80	1800	91	
	III	1800	⑦	2.10	780	82	
		1800	⑧	4.80	1850	77	
		1800	⑨	3.10	1150	86	
	IV	1500	⑩	1.35	480	77	
		1500	⑪	2.90	1100	71	
		1500	⑫	1.85	700	82	
	V	1200	⑬	0.82	270	71	
		1200	⑭	1.60	580	66	
		1200	⑮	1.10	390	76	

Current values determined at 230V

Fan ordering information

Design	RH*	ER**	GR**	GR**	GR**
Installation position	H/Vu/Vo	H	H	Vo	Vu
					
Type	**RH45C-ZID.GG.CR**	**ER45C-ZID.GG.CR**	**GR45C-ZID.GG.CR**	**GR45C-ZID.GG.CR**	**GR45C-ZID.GG.CR**
Basic electronics					
Article no.	**114613**	**114667/A01**	**114647/H01**	**114647/O01**	**114647/U01**
Premium electronics					
Article no.	**114614**				
Weight [kg]	22.00	43.00	41.00	41.00	41.00

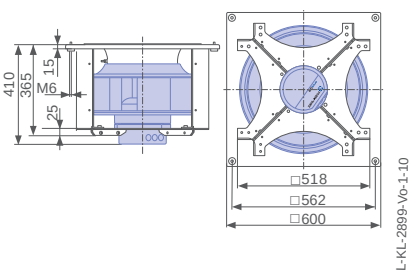
* Inlet ring not included

** Inlet ring integrated

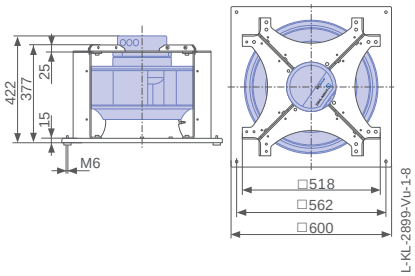
Control technology

Control module	Operating terminal	Expansion module
		
Page 464	Page 476	Page 473

Ventilation unit GR in installation position Vo



Ventilation unit GR in installation position Vu



C p r o - E C b l u e

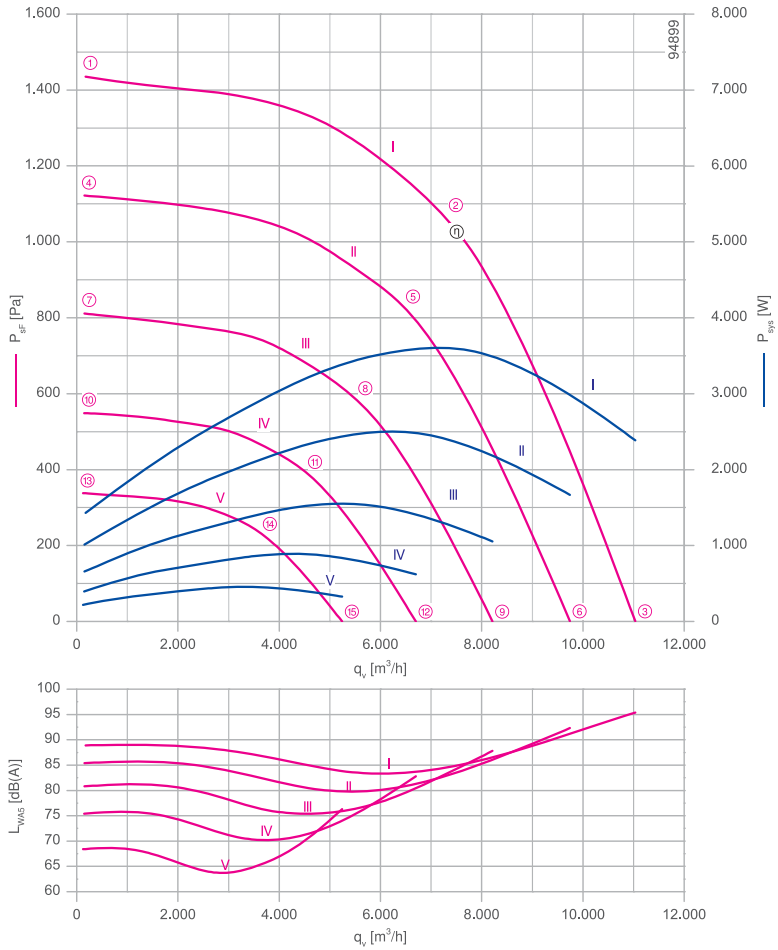
for three phase alternating current, 200-240 V

R H 4 5 C - Z I K

Description

Motor technology: EC
Rated voltage U: **3~200-240 V***
Rated frequency f: **50/60 Hz***
Motor input power P: **3.60 kW***
Rated current I: **11.00-9.20 A***
Rated speed n: **2260 min^{-1}***
Thermal class: **THCL155***
Min. permitted ambient temperature t_R: -20 °C
Max. permitted ambient temperature t_R at n_{max}: 55 °C
Electrical connection: integrated Controller
Number of blades : 7
Balancing quality: G 2.5
Protection class: IP54
Motor protection: Integrated active temperature management
Impeller : ZAmid, uncoated, Ultramarine blue
Conformity: ErP 2015, CE
ErP-data
Efficiency η_{statA}: 64.3 %
Efficiency: N_{actual} = 68.9 / N_{target} = 62**
EC controller integrated
*Rated data
**ErP 2015

Characteristic curve

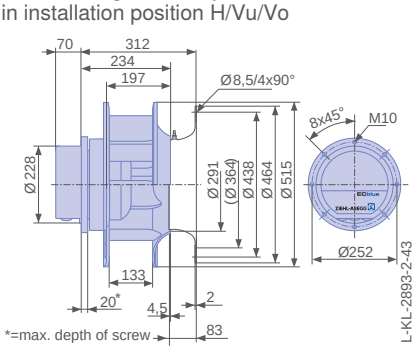


measured with inlet ring, without guard grille according to ISO 5801

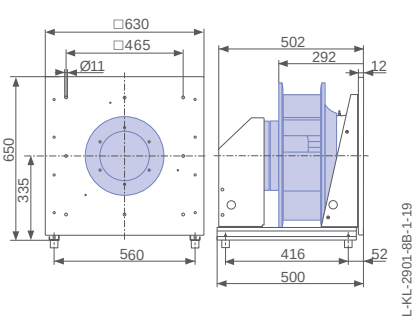
Inlet ring	00401298	Page 450
Connection diagram	1360-401	Page 548
Rubber dampers	30x30 / 40	Page 454
Spring vibration dampers	MSN 5	Page 454
System components		Page 448

Dimensions [mm]

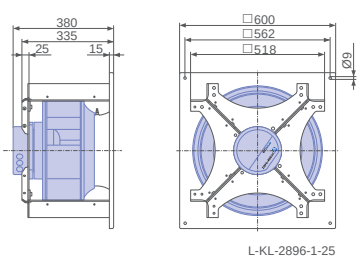
Free-running motor impeller RH
in installation position H/Vu/Vo



Plug fan ER in installation position H



Ventilation unit GR in installation position H

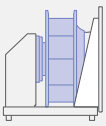
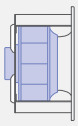
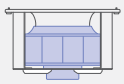


Performance data

Type	Characteristic curve	Speed n [min^{-1}]	Operating point	Current I [A]	Motor input power P_{sys} [W]	Suction side sound power level L_{WA5} [dB]
__45C-ZIK.GG.CR	I	2260	①	3.80	1450	89
		2260	②	9.40	3600	84
		2260	③	6.20	2400	95
	II	2000	④	2.70	1000	85
		2000	⑤	6.60	2500	81
		2000	⑥	4.40	1650	92
	III	1700	⑦	1.75	660	81
		1700	⑧	4.00	1550	76
		1700	⑨	2.80	1050	88
	IV	1400	⑩	1.10	400	75
		1400	⑪	2.40	880	71
		1400	⑫	1.70	620	83
	V	1100	⑬	0.68	220	68
		1100	⑭	1.25	460	65
		1100	⑮	0.94	330	76

Current values determined at 230V

Fan ordering information

Design	RH*	ER**	GR**	GR**	GR**
Installation position	H/Vu/Vo	H	H	Vo	Vu
					
Type	**RH45C-ZIK.GG.CR**	**ER45C-ZIK.GG.CR**	**GR45C-ZIK.GG.CR**	**GR45C-ZIK.GG.CR**	**GR45C-ZIK.GG.CR**
Basic electronics					
Article no.	**114609**	**114665/A01**	**114645/H01**	**114645/O01**	**114645/U01**
Premium electronics					
Article no.	**114610**				
Weight [kg]	22.00	41.00	40.00	40.00	40.00

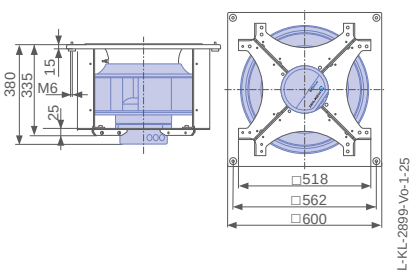
* Inlet ring not included

** Inlet ring integrated

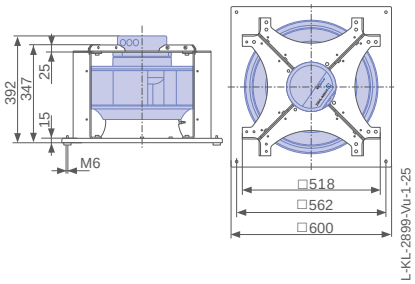
Control technology

Control module	Operating terminal	Expansion module
		
Page 464	Page 476	Page 473

Ventilation unit GR in installation position Vo



Ventilation unit GR in installation position Vu



C p r o - E C b l u e

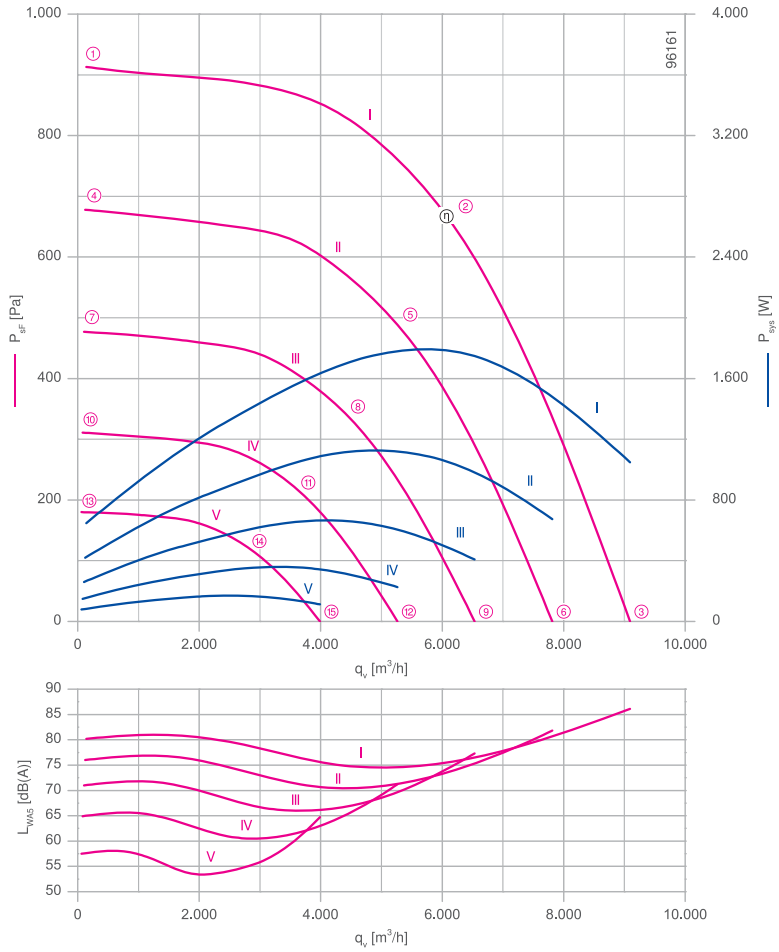
for three phase alternating current, 380-480 V

R H 4 5 C - Z I K

Description

Motor technology: EC
Rated voltage U: **3~380-480 V***
Rated frequency f: **50/60 Hz***
Motor input power P: **1.80 kW***
Rated current I: **2.90-2.30 A***
Rated speed n: **1800 min^{-1}***
Thermal class: **THCL155***
Min. permitted ambient temperature t_R: -20 °C
Max. permitted ambient temperature t_R at n_{max}: 40 °C
Electrical connection: integrated Controller
Number of blades : 7
Balancing quality: G 2.5
Protection class: IP54
Motor protection: Integrated active temperature management
Impeller : ZAmid, uncoated, Ultramarine blue
Conformity: ErP 2015, CE
ErP-data
Efficiency η_{statA}: 69.3 %
Efficiency: N_{actual} = 77.1 / N_{target} = 62**
EC controller integrated
*Rated data
**ErP 2015

Characteristic curve

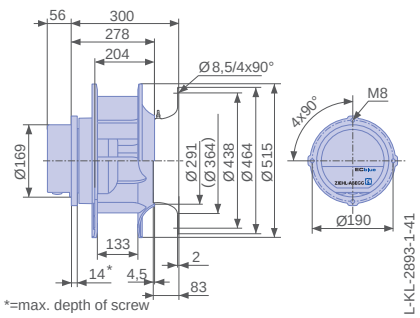


measured with inlet ring, without guard grille according to ISO 5801

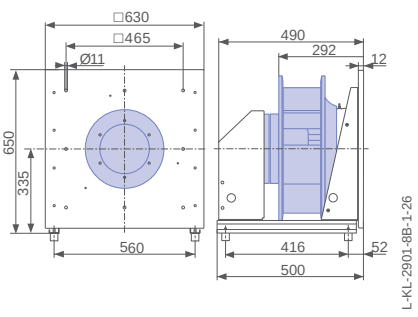
Inlet ring	00401298	Page 450
Connection diagram	1360-401	Page 548
Rubber dampers	30x30 / 40	Page 454
Spring vibration dampers	MSN 4	Page 454
System components		Page 448

Dimensions [mm]

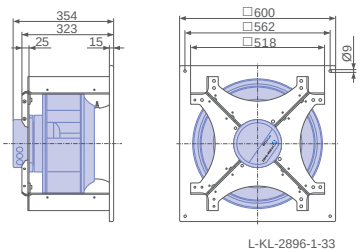
Free-running motor impeller RH
in installation position H/Vu/Vo



Plug fan ER in installation position H



Ventilation unit GR in installation position H

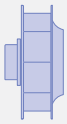
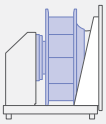
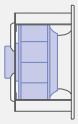
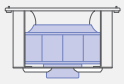


Performance data

Type	Characteristic curve	Speed n [min⁻¹]	Operating point	Current I [A]	Motor input power P_{sys} [W]	Suction side sound power level L_{WA5} [dB]	Maximum ambient temperature t_R [°C]
__45C-ZIK.DC.CR	I	1800	①	1.10	640	80	40
		1800	②	2.70	1800	75	
		1800	③	1.65	1050	86	
	II	1550	④	0.78	420	76	60
		1550	⑤	1.75	1100	71	
		1550	⑥	1.10	680	82	
	III	1300	⑦	0.58	260	71	
		1300	⑧	1.10	660	67	
		1300	⑨	0.76	400	77	
	IV	1050	⑩	0.40	150	65	
		1050	⑪	0.70	360	61	
		1050	⑫	0.52	230	71	
	V	800	⑬	0.28	80	58	
		800	⑭	0.44	170	55	
		800	⑮	0.34	110	65	

Current values determined at 400V

Fan ordering information

Design	RH*	ER**	GR**	GR**	GR**
Installation position	H/Vu/Vo	H	H	Vo	Vu
					
Type	**RH45C-ZIK.DC.CR**	**ER45C-ZIK.DC.CR**	**GR45C-ZIK.DC.CR**	**GR45C-ZIK.DC.CR**	**GR45C-ZIK.DC.CR**
Basic electronics					
Article no.	**114518**	**114598/A01**	**114550/H01**	**114550/O01**	**114550/U01**
Premium electronics					
Article no.	**114519**				
Weight [kg]	13.00	33.00	32.00	32.00	32.00

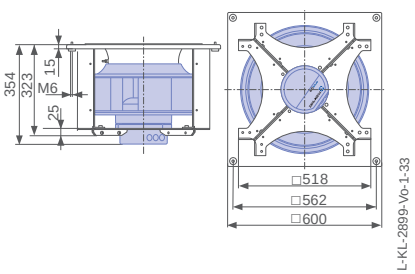
* Inlet ring not included

** Inlet ring integrated

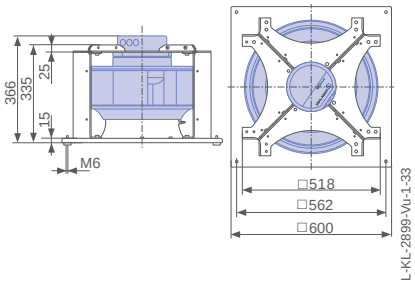
Control technology

Control module	Operating terminal	Expansion module
		
Page 464	Page 476	Page 473

Ventilation unit GR in installation position Vo



Ventilation unit GR in installation position Vu



C p r o - E C b l u e

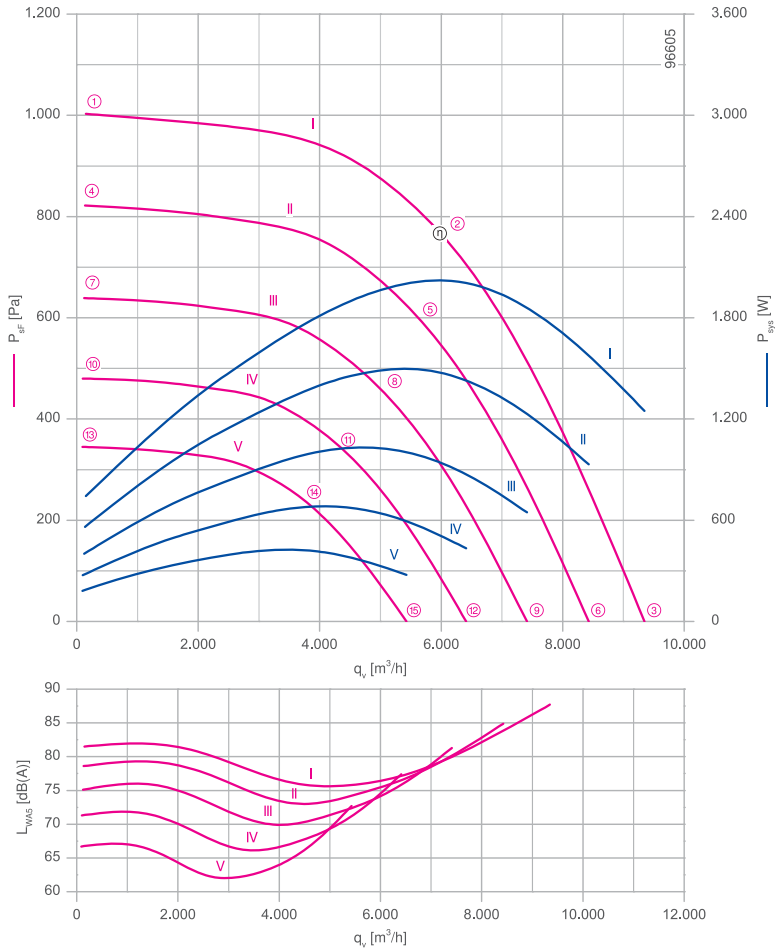
for three phase alternating current, 380-480 V

R H 4 5 C - Z I K

Description

Motor technology: EC
Rated voltage U: **3~380-480 V***
Rated frequency f: **50/60 Hz***
Motor input power P: **2.00 kW***
Rated current I: **3.30-2.60 A***
Rated speed n: **1880 min^{-1}***
Thermal class: **THCL155***
Min. permitted ambient temperature t_R: -20 °C
Max. permitted ambient temperature t_R at n_{max}: 45 °C
Electrical connection: integrated Controller
Number of blades : 7
Balancing quality: G 2.5
Protection class: IP54
Motor protection: Integrated active temperature management
Impeller : ZAmid, uncoated, Ultramarine blue
Conformity: ErP 2015, CE
ErP-data
Efficiency η_{statA}: 69.0 %
Efficiency: N_{actual} = 76.3 / N_{target} = 62**
EC controller integrated
*Rated data
**ErP 2015

Characteristic curve

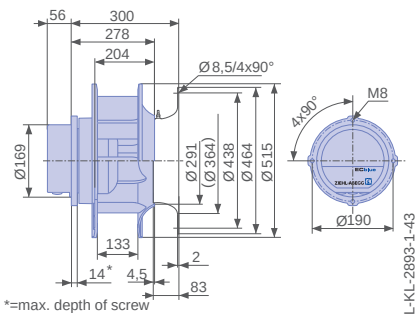


measured with inlet ring, without guard grille according to ISO 5801

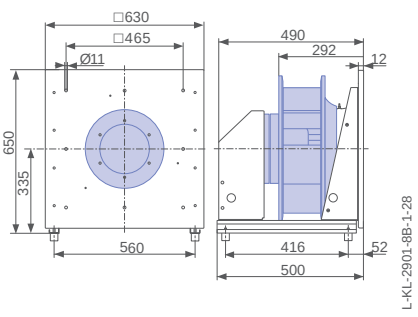
Inlet ring	00401298	Page 450
Connection diagram	1360-401	Page 548
Rubber dampers	30x30 / 40	Page 454
Spring vibration dampers	MSN 4	Page 454
System components		Page 448

Dimensions [mm]

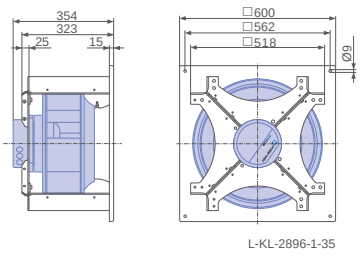
Free-running motor impeller RH
in installation position H/Vu/Vo



Plug fan ER in installation position H



Ventilation unit GR in installation position H

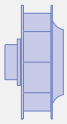
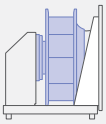
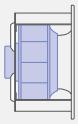
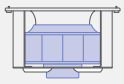


Performance data

Type	Characteristic curve	Speed n [min⁻¹]	Operating point	Current I [A]	Motor input power P_{sys} [W]	Suction side sound power level L_{WA5} [dB]	Maximum ambient temperature t_R [°C]
__45C-ZIK.DG.CR	I	1880	①	1.25	740	82	45
		1880	②	3.10	2000	76	
		1880	③	1.95	1250	88	
	II	1700	④	1.00	560	79	
		1700	⑤	2.30	1500	75	
		1700	⑥	1.50	940	85	
	III	1500	⑦	0.80	400	75	60
		1500	⑧	1.65	1050	71	
		1500	⑨	1.10	640	81	
	IV	1300	⑩	0.62	270	71	
		1300	⑪	1.15	680	67	
		1300	⑫	0.84	440	77	
	V	1100	⑬	0.48	180	67	
		1100	⑭	0.82	420	63	
		1100	⑮	0.62	280	73	

Current values determined at 400V

Fan ordering information

Design	RH*	ER**	GR**	GR**	GR**
Installation position	H/Vu/Vo	H	H	Vo	Vu
					
Type	**RH45C-ZIK.DG.CR**	**ER45C-ZIK.DG.CR**	**GR45C-ZIK.DG.CR**	**GR45C-ZIK.DG.CR**	**GR45C-ZIK.DG.CR**
Basic electronics					
Article no.	**114522**	**114600/A01**	**114552/H01**	**114552/O01**	**114552/U01**
Premium electronics					
Article no.	**114523**				
Weight [kg]	13.00	35.00	33.00	33.00	33.00

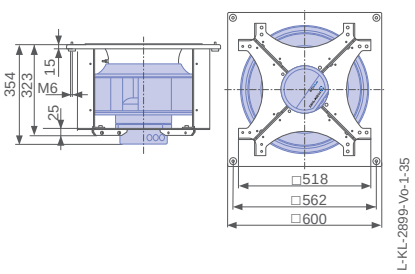
* Inlet ring not included

** Inlet ring integrated

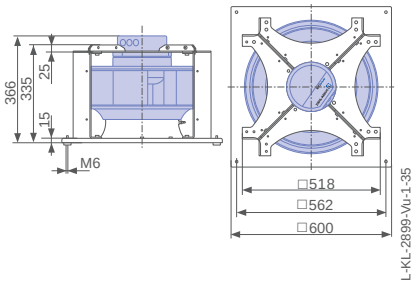
Control technology

Control module	Operating terminal	Expansion module
		
Page 464	Page 476	Page 473

Ventilation unit GR in installation position Vo



Ventilation unit GR in installation position Vu

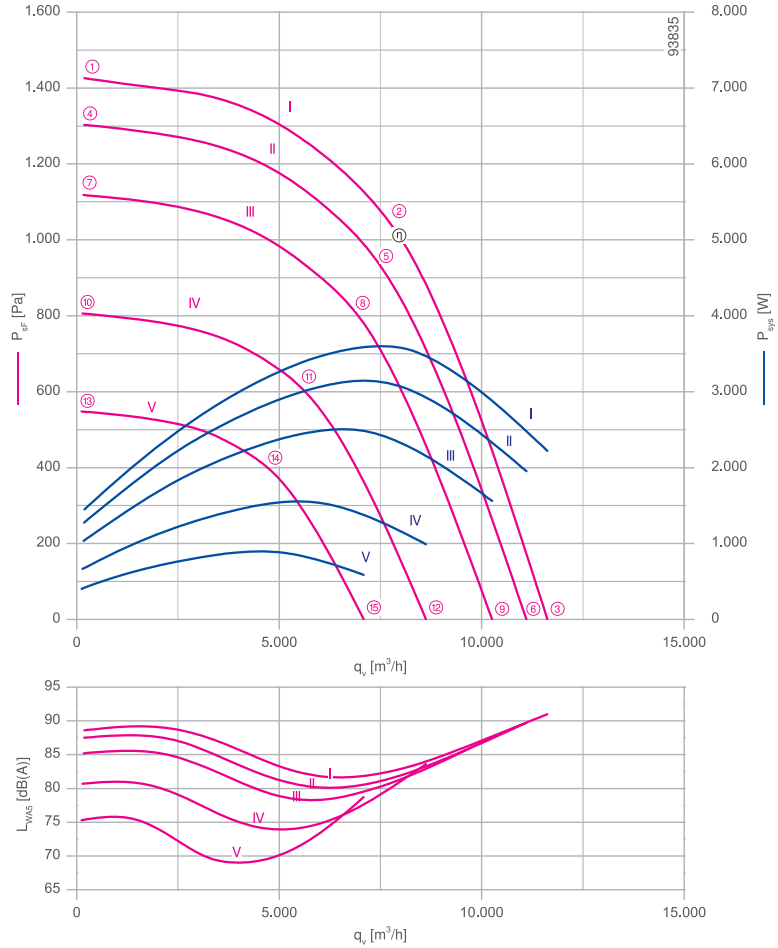


C p r o - E C b l u e

for three phase alternating current, 380-480 V

R H 4 5 C - Z I D

Characteristic curve



measured with inlet ring, without guard grille according to ISO 5801

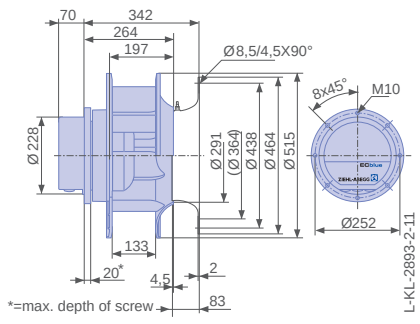
Description

Motor technology: EC
Rated voltage U: **3~380-480 V***
Rated frequency f: **50/60 Hz***
Motor input power P: **3.60 kW***
Rated current I: **5.80-4.60 A***
Rated speed n: **2260 min^{-1}***
Thermal class: **THCL155***
Min. permitted ambient temperature t_R: -20 °C
Max. permitted ambient temperature t_R at n_{max}: 55 °C
Electrical connection: integrated Controller
Number of blades : 7
Balancing quality: G 2.5
Protection class: IP54
Motor protection: Integrated active temperature management
Impeller : ZAmid, uncoated, Ultramarine blue
Conformity: ErP 2015, CE
ErP-data
Efficiency η_{statA}: 67.1 %
Efficiency: N_{actual} = 71.8 / N_{target} = 62**
EC controller integrated
*Rated data
**ErP 2015

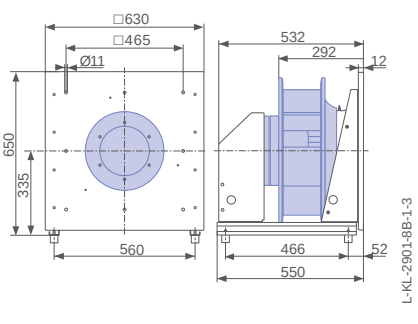
Inlet ring	00401298	Page 450
Connection diagram	1360-401	Page 548
Rubber dampers	30x30 / 40	Page 454
Spring vibration dampers	MSN 5	Page 454
System components		Page 448

Dimensions [mm]

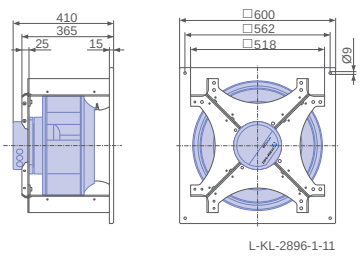
Free-running motor impeller RH
in installation position H/Vu/Vo



Plug fan ER in installation position H



Ventilation unit GR in installation position H

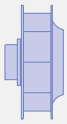
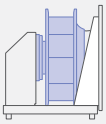
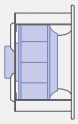
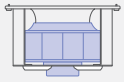


Performance data

Type	Characteristic curve	Speed n [min⁻¹]	Operating point	Current I [A]	Motor input power P_{sys} [W]	Suction side sound power level L_{WA5} [dB]	Maximum ambient temperature t_R [°C]
__45C-ZID.GG.CR	I	2260	①	2.30	1450	89	55
		2260	②	5.40	3600	82	
		2260	③	3.40	2200	91	
	II	2160	④	2.00	1300	88	60
		2160	⑤	4.80	3100	81	
		2160	⑥	3.00	1950	90	
	III	2000	⑦	1.70	1050	85	
		2000	⑧	3.80	2500	79	
		2000	⑨	2.40	1550	88	
	IV	1700	⑩	1.20	660	81	
		1700	⑪	2.40	1550	74	
		1700	⑫	1.60	1000	84	
	V	1400	⑬	0.84	400	75	
		1400	⑭	1.50	900	70	
		1400	⑮	1.05	580	79	

Current values determined at 400V

Fan ordering information

Design	RH*	ER**	GR**	GR**	GR**
Installation position	H/Vu/Vo	H	H	Vo	Vu
					
Type	**RH45C-ZID.GG.CR**	**ER45C-ZID.GG.CR**	**GR45C-ZID.GG.CR**	**GR45C-ZID.GG.CR**	**GR45C-ZID.GG.CR**
Basic electronics					
Article no.	**114615**	**114668/A01**	**114648/H01**	**114648/O01**	**114648/U01**
Premium electronics					
Article no.	**114616**				
Weight [kg]	22.00	43.00	41.00	41.00	41.00

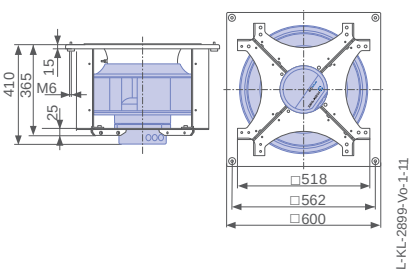
* Inlet ring not included

** Inlet ring integrated

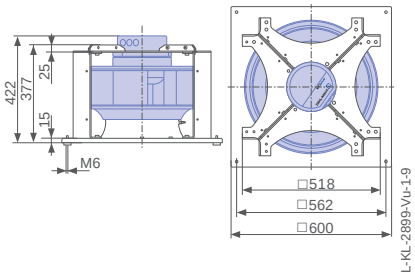
Control technology

Control module	Operating terminal	Expansion module
		
Page 464	Page 476	Page 473

Ventilation unit GR in installation position Vo



Ventilation unit GR in installation position Vu



C p r o - E C b l u e

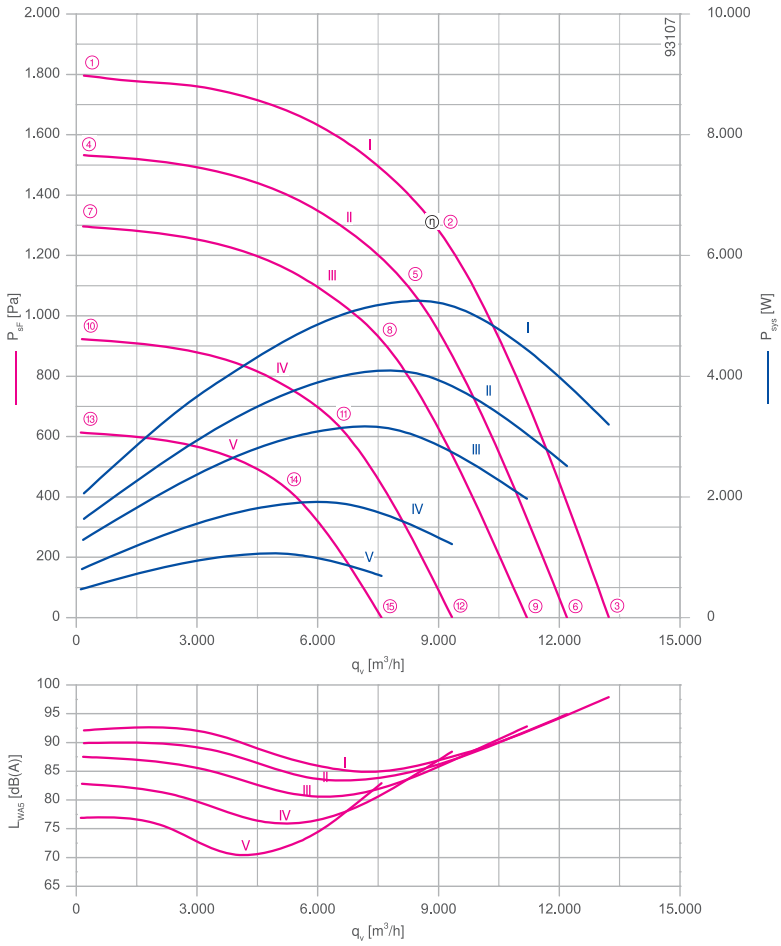
for three phase alternating current, 380-480 V

R H 4 5 C - Z I D

Description

Motor technology: EC
Rated voltage U: **3~380-480 V***
Rated frequency f: **50/60 Hz***
Motor input power P: **5,20 kW***
Rated current I: **8.40-6.60 A***
Rated speed n: **2570 min^{-1}***
Thermal class: **THCL155***
Min. permitted ambient temperature t_R: -20 °C
Max. permitted ambient temperature t_R at n_{max}: 40 °C
Electrical connection: integrated Controller
Number of blades : 7
Balancing quality: G 2.5
Protection class: IP54
Motor protection: Integrated active temperature management
Impeller : ZAmid, uncoated, Ultramarine blue
Conformity: ErP 2015, CE
ErP-data
Efficiency η_{statA}: 65.7 %
Efficiency: N_{actual} = 68.7 / N_{target} = 62**
EC controller integrated
*Rated data
**ErP 2015

Characteristic curve

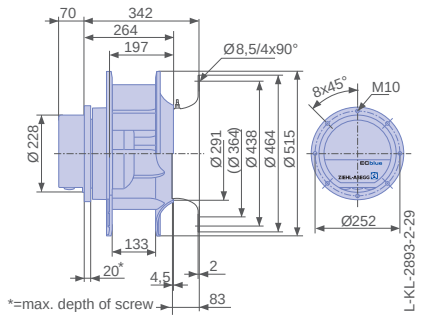


measured with inlet ring, without guard grille according to ISO 5801

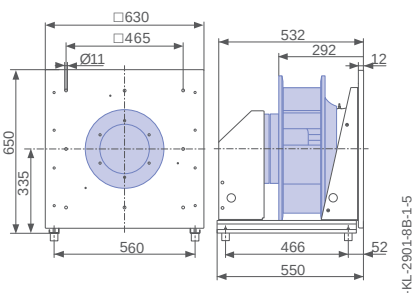
Inlet ring	00401298	Page 450
Connection diagram	1360-401	Page 548
Rubber dampers	30x30 / 40	Page 454
Spring vibration dampers	MSN 5	Page 454
System components		Page 448

Dimensions [mm]

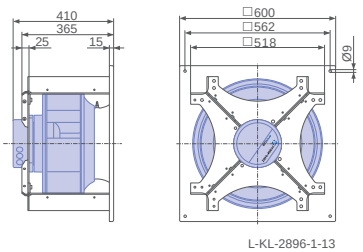
Free-running motor impeller RH
in installation position H/Vu/Vo



Plug fan ER in installation position H



Ventilation unit GR in installation position H

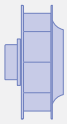
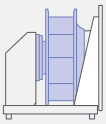
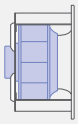
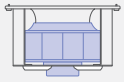


Performance data

Type	Characteristic curve	Speed n [min⁻¹]	Operating point	Current I [A]	Motor input power P_{sys} [W]	Suction side sound power level L_{WA5} [dB]	Maximum ambient temperature t_R [°C]
__45C-ZID.GG.CR	I	2570	①	3.20	2100	92	40
		2570	②	8.00	5200	87	
		2570	③	4.80	3200	98	
	II	2370	④	2.60	1650	90	
		2370	⑤	6.20	4000	84	
		2370	⑥	3.90	2500	95	
	III	2180	⑦	2.10	1300	88	60
		2180	⑧	4.80	3200	82	
		2180	⑨	3.00	1950	93	
	IV	1840	⑩	1.40	800	83	
		1840	⑪	3.00	1900	77	
		1840	⑫	1.95	1200	88	
	V	1500	⑬	0.94	480	77	
		1500	⑭	1.75	1050	72	
		1500	⑮	1.25	700	83	

Current values determined at 400V

Fan ordering information

Design	RH*	ER**	GR**	GR**	GR**
Installation position	H/Vu/Vo	H	H	Vo	Vu
					
Type	**RH45C-ZID.GG.CR**	**ER45C-ZID.GG.CR**	**GR45C-ZID.GG.CR**	**GR45C-ZID.GG.CR**	**GR45C-ZID.GG.CR**
Basic electronics					
Article no.	**114707**	**114731/A01**	**114722/H01**	**114722/O01**	**114722/U01**
Premium electronics					
Article no.	**114708**				
Weight [kg]	22.00	43.00	41.00	41.00	41.00

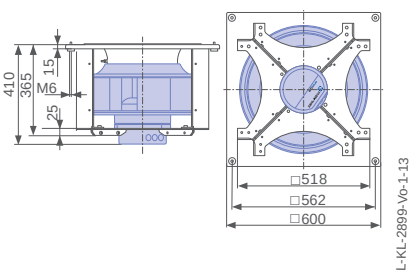
* Inlet ring not included

** Inlet ring integrated

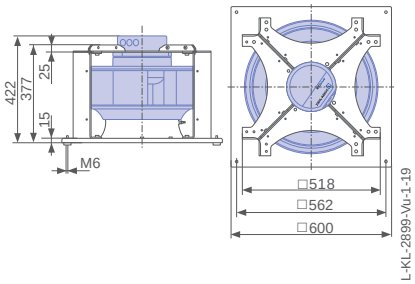
Control technology

Control module	Operating terminal	Expansion module
		
Page 464	Page 476	Page 473

Ventilation unit GR in installation position Vo



Ventilation unit GR in installation position Vu



C p r o - E C b l u e

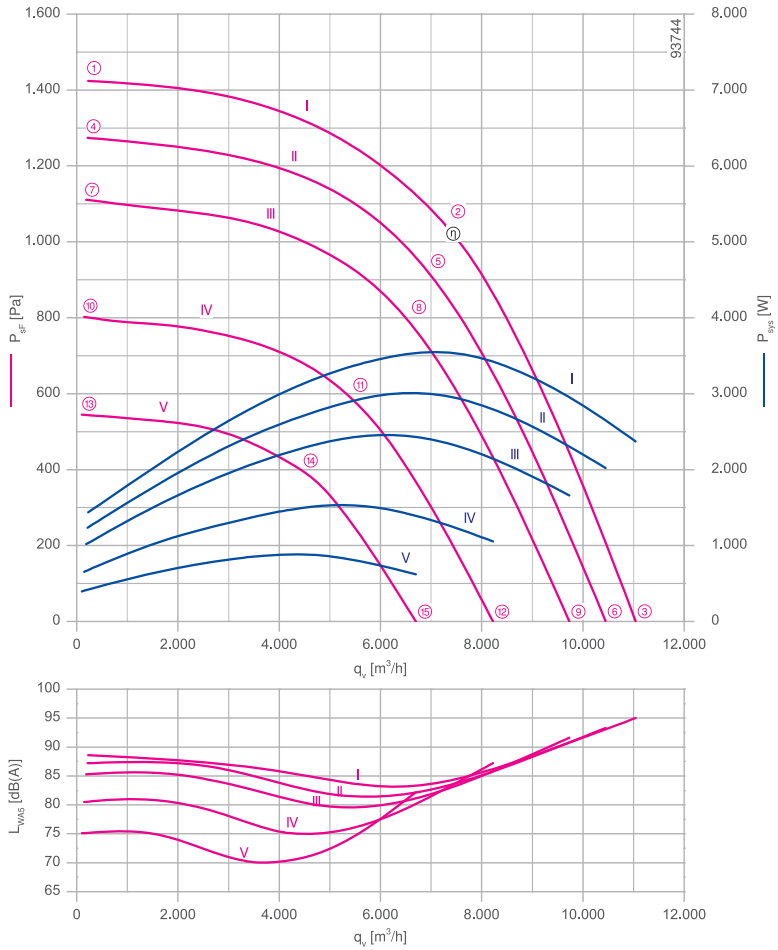
for three phase alternating current, 380-480 V

R H 4 5 C - Z I K

Description

Motor technology: EC
Rated voltage U: **3~380-480 V***
Rated frequency f: **50/60 Hz***
Motor input power P: **3.50 kW***
Rated current I: **5.80-4.60 A***
Rated speed n: **2260 min^{-1}***
Thermal class: **THCL155***
Min. permitted ambient temperature t_R: -20 °C
Max. permitted ambient temperature t_R at n_{max}: 55 °C
Electrical connection: integrated Controller
Number of blades : 7
Balancing quality: G 2.5
Protection class: IP54
Motor protection: Integrated active temperature management
Impeller : ZAmid, uncoated, Ultramarine blue
Conformity: ErP 2015, CE
ErP-data
Efficiency η_{statA}: 64.2 %
Efficiency: N_{actual} = 68.9 / N_{target} = 62**
EC controller integrated
*Rated data
**ErP 2015

Characteristic curve

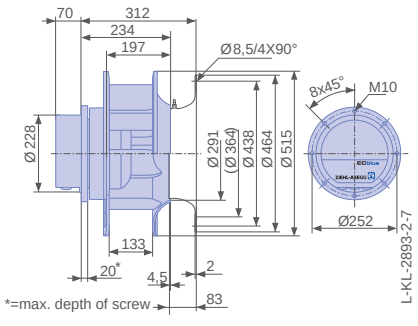


measured with inlet ring, without guard grille according to ISO 5801

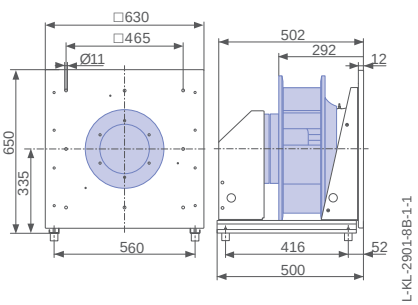
Inlet ring	00401298	Page 450
Connection diagram	1360-401	Page 548
Rubber dampers	30x30 / 40	Page 454
Spring vibration dampers	MSN 5	Page 454
System components		Page 448

Dimensions [mm]

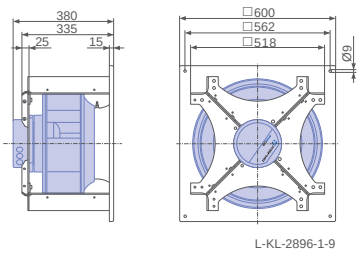
Free-running motor impeller RH
in installation position H/Vu/Vo



Plug fan ER in installation position H



Ventilation unit GR in installation position H

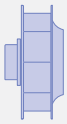
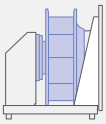
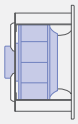
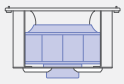


Performance data

Type	Characteristic curve	Speed n [min⁻¹]	Operating point	Current I [A]	Motor input power P_{sys} [W]	Suction side sound power level L_{WA5} [dB]	Maximum ambient temperature t_R [°C]
__45C-ZIK.GG.CR	I	2260	①	2.30	1450	89	55
		2260	②	5.40	3500	84	
		2260	③	3.60	2400	95	
	II	2140	④	1.95	1250	87	60
		2140	⑤	4.60	3000	82	
		2140	⑥	3.10	2000	93	
	III	2000	⑦	1.65	1000	85	
		2000	⑧	3.80	2500	80	
		2000	⑨	2.60	1650	92	
	IV	1700	⑩	1.15	660	81	
		1700	⑪	2.40	1550	76	
		1700	⑫	1.70	1050	87	
	V	1400	⑬	0.82	400	75	
		1400	⑭	1.45	880	70	
		1400	⑮	1.10	620	82	

Current values determined at 400V

Fan ordering information

Design	RH*	ER**	GR**	GR**	GR**
Installation position	H/Vu/Vo	H	H	Vo	Vu
					
Type	**RH45C-ZIK.GG.CR**	**ER45C-ZIK.GG.CR**	**GR45C-ZIK.GG.CR**	**GR45C-ZIK.GG.CR**	**GR45C-ZIK.GG.CR**
Basic electronics					
Article no.	**114611**	**114666/A01**	**114646/H01**	**114646/O01**	**114646/U01**
Premium electronics					
Article no.	**114612**				
Weight [kg]	22.00	41.00	40.00	40.00	40.00

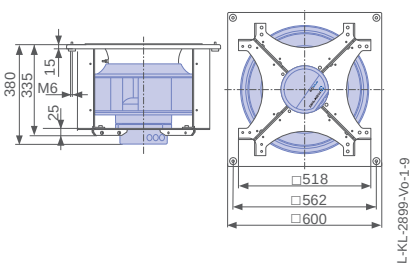
* Inlet ring not included

** Inlet ring integrated

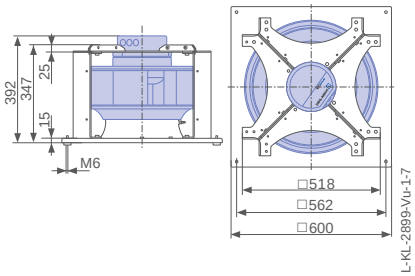
Control technology

Control module	Operating terminal	Expansion module
		
Page 464	Page 476	Page 473

Ventilation unit GR in installation position Vo



Ventilation unit GR in installation position Vu



C p r o - E C b l u e

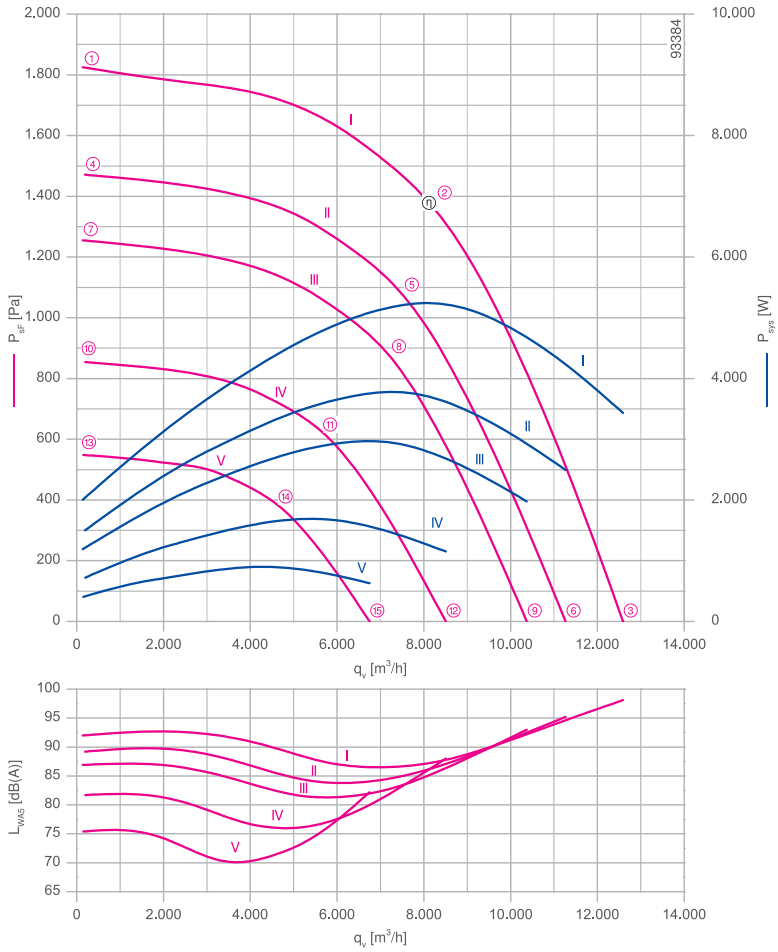
for three phase alternating current, 380-480 V

R H 4 5 C - Z I K

Description

Motor technology: EC
Rated voltage U: **3~380-480 V***
Rated frequency f: **50/60 Hz***
Motor input power P: **5,20 kW***
Rated current I: **8.40-6.60 A***
Rated speed n: **2570 min^{-1}***
Thermal class: **THCL155***
Min. permitted ambient temperature t_R: -20 °C
Max. permitted ambient temperature t_R at n_{max}: 40 °C
Electrical connection: integrated Controller
Number of blades : 7
Balancing quality: G 2.5
Protection class: IP54
Motor protection: Integrated active temperature management
Impeller : ZAmid, uncoated, Ultramarine blue
Conformity: ErP 2015, CE
ErP-data
Efficiency η_{statA}: 63.3 %
Efficiency: N_{actual} = 66.3 / N_{target} = 62**
EC controller integrated
*Rated data
**ErP 2015

Characteristic curve

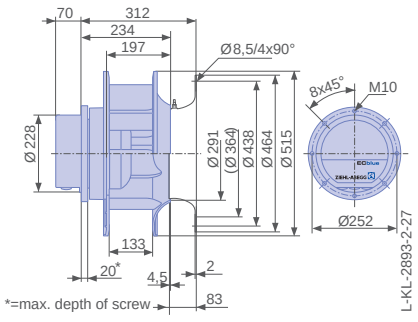


measured with inlet ring, without guard grille according to ISO 5801

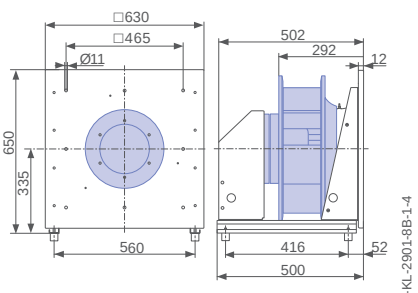
Inlet ring	00401298	Page 450
Connection diagram	1360-401	Page 548
Rubber dampers	30x30 / 40	Page 454
Spring vibration dampers	MSN 5	Page 454
System components		Page 448

Dimensions [mm]

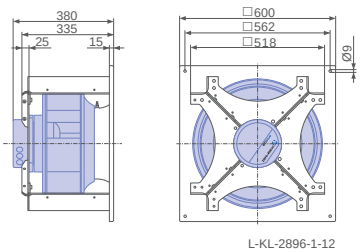
Free-running motor impeller RH
in installation position H/Vu/Vo



Plug fan ER in installation position H



Ventilation unit GR in installation position H

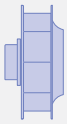
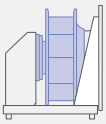
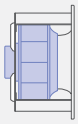
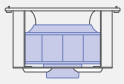


Performance data

Type	Characteristic curve	Speed n [min⁻¹]	Operating point	Current I [A]	Motor input power P_{sys} [W]	Suction side sound power level L_{WA5} [dB]	Maximum ambient temperature t_R [°C]
__45C-ZIK.GG.CR	I	2570	①	3.10	2000	92	40
		2570	②	8.00	5200	87	
		2570	③	5.20	3400	98	
	II	2310	④	2.40	1500	89	
		2310	⑤	5.80	3800	85	
		2310	⑥	3.80	2500	95	
	III	2130	⑦	1.90	1200	87	60
		2130	⑧	4.60	3000	83	
		2130	⑨	3.00	2000	93	
	IV	1760	⑩	1.25	720	82	
		1760	⑪	2.60	1700	77	
		1760	⑫	1.85	1150	88	
	V	1410	⑬	0.84	400	75	
		1410	⑭	1.50	900	71	
		1410	⑮	1.15	620	82	

Current values determined at 400V

Fan ordering information

Design	RH*	ER**	GR**	GR**	GR**
Installation position	H/Vu/Vo	H	H	Vo	Vu
					
Type	**RH45C-ZIK.GG.CR**	**ER45C-ZIK.GG.CR**	**GR45C-ZIK.GG.CR**	**GR45C-ZIK.GG.CR**	**GR45C-ZIK.GG.CR**
Basic electronics					
Article no.	**114705**	**114730/A01**	**114721/H01**	**114721/O01**	**114721/U01**
Premium electronics					
Article no.	**114706**				
Weight [kg]	22.00	41.00	40.00	40.00	40.00

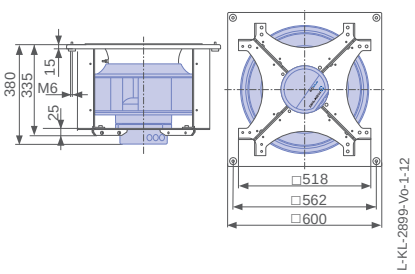
* Inlet ring not included

** Inlet ring integrated

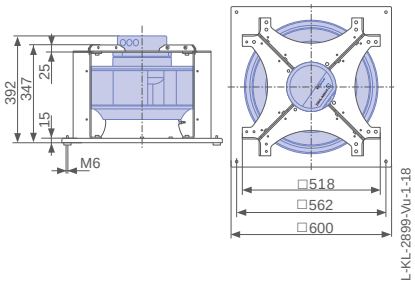
Control technology

Control module	Operating terminal	Expansion module
		
Page 464	Page 476	Page 473

Ventilation unit GR in installation position Vo



Ventilation unit GR in installation position Vu



C p r o - E C b l u e

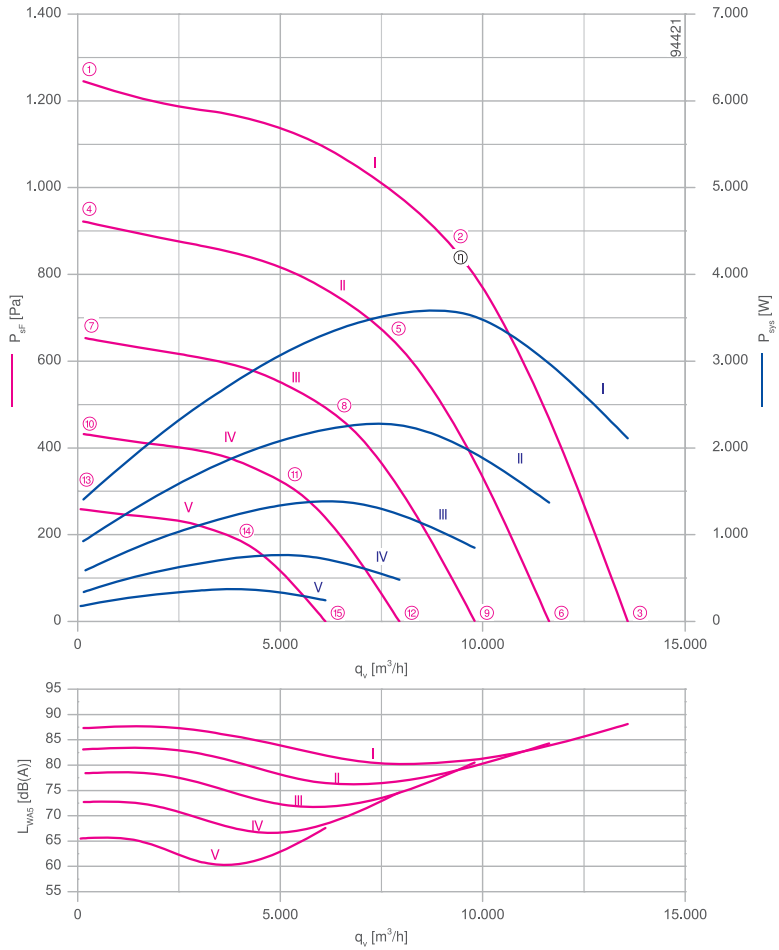
for three phase alternating current, 200-240 V

R H 5 0 C - Z I D

Description

Motor technology: EC
Rated voltage U: **3~200-240 V***
Rated frequency f: **50/60 Hz***
Motor input power P: **3.60 kW***
Rated current I: **11.00-9.20 A***
Rated speed n: **1860 min^{-1}***
Thermal class: **THCL155***
Min. permitted ambient temperature t_R: -20 °C
Max. permitted ambient temperature t_R at n_{max}: 45 °C
Electrical connection: integrated Controller
Number of blades : 7
Balancing quality: G 2.5
Protection class: IP54
Motor protection: Integrated active temperature management
Impeller : ZAmid, uncoated, Ultramarine blue
Conformity: ErP 2015, CE
ErP-data
Efficiency η_{statA}: 66.8 %
Efficiency: N_{actual} = 71.5 / N_{target} = 62**
EC controller integrated
*Rated data
**ErP 2015

Characteristic curve

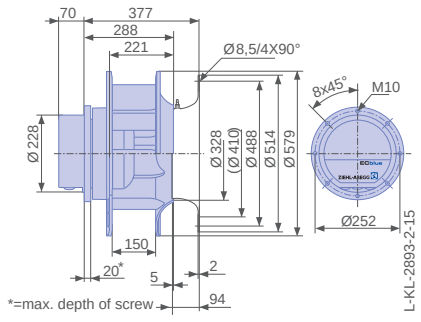


measured with inlet ring, without guard grille according to ISO 5801

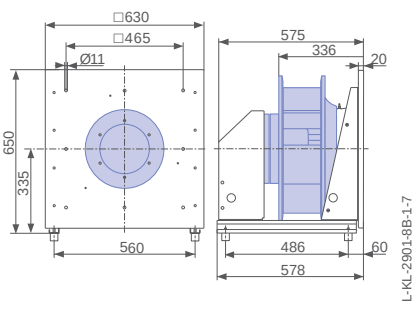
Inlet ring	00401299	Page 450
Connection diagram	1360-401	Page 548
Rubber dampers	30x30 / 40	Page 454
Spring vibration dampers	MSN 5	Page 454
System components		Page 448

Dimensions [mm]

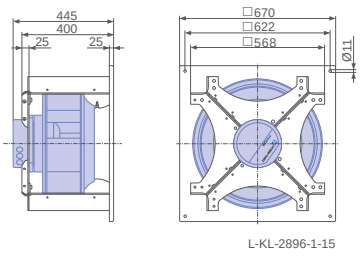
Free-running motor impeller RH
in installation position H/Vu/Vo



Plug fan ER in installation position H



Ventilation unit GR in installation position H

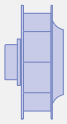
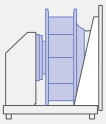
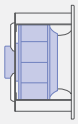
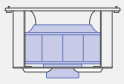


Performance data

Type	Characteristic curve	Speed n [min⁻¹]	Operating point	Current I [A]	Motor input power P_{sys} [W]	Suction side sound power level L_{WA5} [dB]	Maximum ambient temperature t_R [°C]
__50C-ZID.GG.CR	I	1860	①	3.80	1400	87	45
		1860	②	9.40	3600	80	
		1860	③	5.60	2100	88	
	II	1600	④	2.50	920	83	60
		1600	⑤	6.00	2300	77	
		1600	⑥	3.70	1350	84	
	III	1350	⑦	1.65	580	78	
		1350	⑧	3.70	1400	72	
		1350	⑨	2.30	840	81	
	IV	1100	⑩	1.00	340	73	
		1100	⑪	2.10	760	67	
		1100	⑫	1.40	480	75	
	V	850	⑬	0.62	180	66	
		850	⑭	1.10	370	61	
		850	⑮	0.78	240	68	

Current values determined at 230V

Fan ordering information

Design	RH*	ER**	GR**	GR**	GR**
Installation position	H/Vu/Vo	H	H	Vo	Vu
					
Type	**RH50C-ZID.GG.CR**	**ER50C-ZID.GG.CR**	**GR50C-ZID.GG.CR**	**GR50C-ZID.GG.CR**	**GR50C-ZID.GG.CR**
Basic electronics					
Article no.	**114621**	**114671/A01**	**114651/H01**	**114651/O01**	**114651/U01**
Premium electronics					
Article no.	**114622**				
Weight [kg]	24.00	45.00	47.00	47.00	47.00

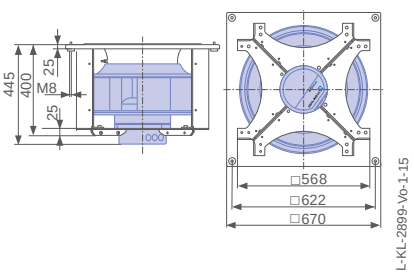
* Inlet ring not included

** Inlet ring integrated

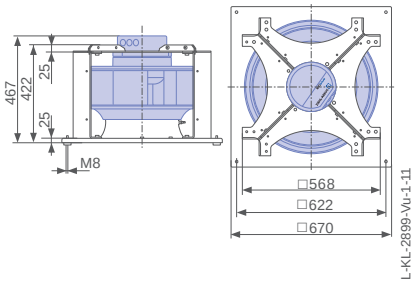
Control technology

Control module	Operating terminal	Expansion module
		
Page 464	Page 476	Page 473

Ventilation unit GR in installation position Vo



Ventilation unit GR in installation position Vu



C p r o - E C b l u e

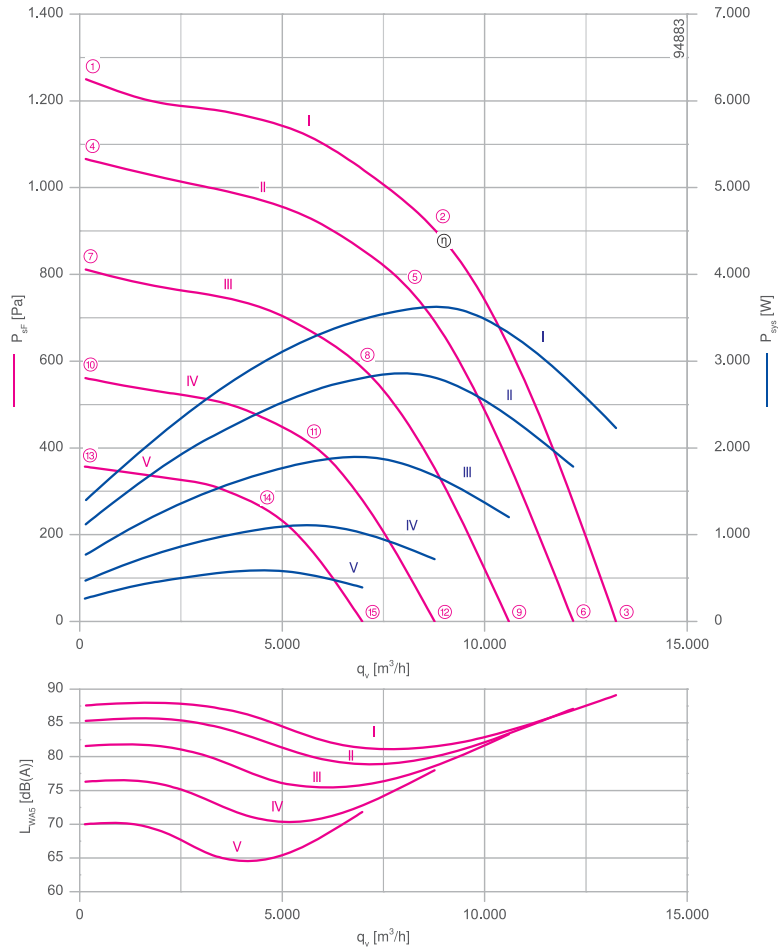
for three phase alternating current, 200-240 V

R H 5 0 C - Z I K

Description

Motor technology: EC
Rated voltage U: **3~200-240 V***
Rated frequency f: **50/60 Hz***
Motor input power P: **3.60 kW***
Rated current I: **11.00-9.20 A***
Rated speed n: **1860 min^{-1}***
Thermal class: **THCL155***
Min. permitted ambient temperature t_R: -20 °C
Max. permitted ambient temperature t_R at n_{max}: 50 °C
Electrical connection: integrated Controller
Number of blades : 7
Balancing quality: G 2.5
Protection class: IP54
Motor protection: Integrated active temperature management
Impeller : ZAmid, uncoated, Ultramarine blue
Conformity: ErP 2015, CE
ErP-data
Efficiency η_{statA}: 65.2 %
Efficiency: N_{actual} = 69.8 / N_{target} = 62**
EC controller integrated
*Rated data
**ErP 2015

Characteristic curve

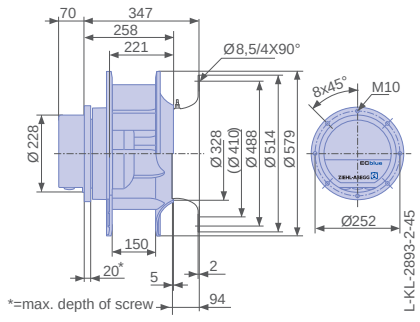


measured with inlet ring, without guard grille according to ISO 5801

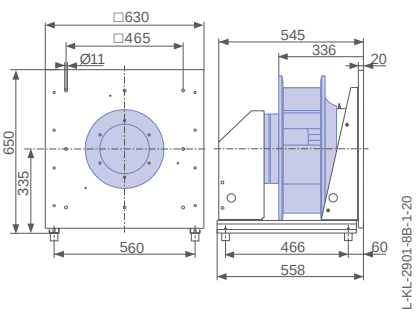
Inlet ring	00401299	Page 450
Connection diagram	1360-401	Page 548
Rubber dampers	30x30 / 40	Page 454
Spring vibration dampers	MSN 5	Page 454
System components		Page 448

Dimensions [mm]

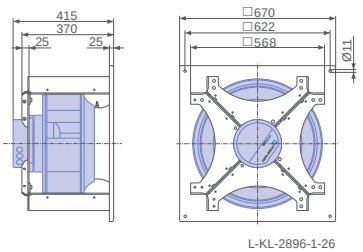
Free-running motor impeller RH
in installation position H/Vu/Vo



Plug fan ER in installation position H



Ventilation unit GR in installation position H

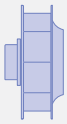
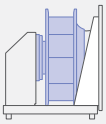
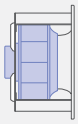
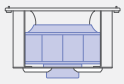


Performance data

Type	Characteristic curve	Speed n [min⁻¹]	Operating point	Current I [A]	Motor input power P_{sys} [W]	Suction side sound power level L_{WA5} [dB]	Maximum ambient temperature t_R [°C]
__50C-ZIK.GG.CR	I	1860	①	3.70	1400	88	50
		1860	②	9.60	3600	82	
		1860	③	5.80	2200	89	
	II	1720	④	3.00	1100	85	60
		1720	⑤	7.60	2900	79	
		1720	⑥	4.60	1800	87	
	III	1500	⑦	2.10	760	82	
		1500	⑧	5.00	1900	76	
		1500	⑨	3.20	1200	83	
	IV	1250	⑩	1.30	480	76	
		1250	⑪	2.90	1100	71	
		1250	⑫	1.95	720	78	
	V	1000	⑬	0.80	260	70	
		1000	⑭	1.60	580	65	
		1000	⑮	1.10	390	72	

Current values determined at 230V

Fan ordering information

Design	RH*	ER**	GR**	GR**	GR**
Installation position	H/Vu/Vo	H	H	Vo	Vu
					
Type	**RH50C-ZIK.GG.CR**	**ER50C-ZIK.GG.CR**	**GR50C-ZIK.GG.CR**	**GR50C-ZIK.GG.CR**	**GR50C-ZIK.GG.CR**
Basic electronics					
Article no.	**114617**	**114669/A01**	**114649/H01**	**114649/O01**	**114649/U01**
Premium electronics					
Article no.	**114618**				
Weight [kg]	24.00	44.00	46.00	46.00	46.00

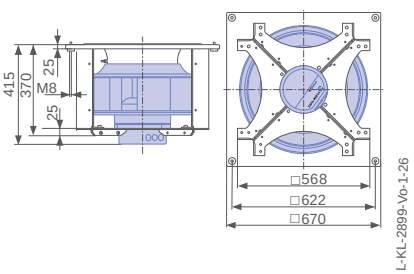
* Inlet ring not included

** Inlet ring integrated

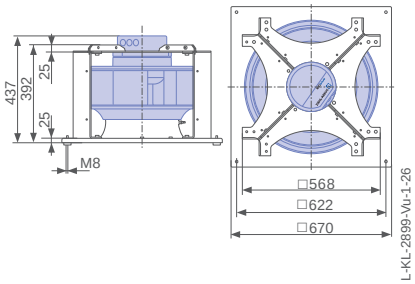
Control technology

Control module	Operating terminal	Expansion module
		
Page 464	Page 476	Page 473

Ventilation unit GR in installation position Vo



Ventilation unit GR in installation position Vu



C p r o - E C b l u e

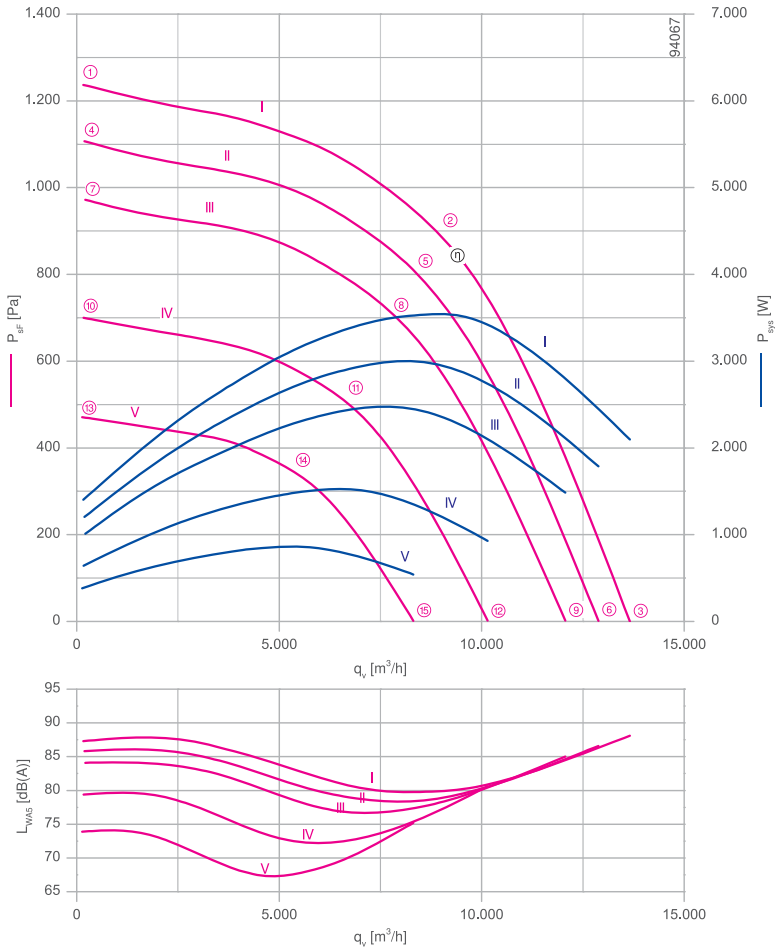
for three phase alternating current, 380-480 V

R H 5 0 C - Z I D

Description

Motor technology: EC
Rated voltage U: **3~380-480 V***
Rated frequency f: **50/60 Hz***
Motor input power P: **3.50 kW***
Rated current I: **5.60-4.40 A***
Rated speed n: **1860 min^{-1}***
Thermal class: **THCL155***
Min. permitted ambient temperature t_R: -20 °C
Max. permitted ambient temperature t_R at n_{max}: 55 °C
Electrical connection: integrated Controller
Number of blades : 7
Balancing quality: G 2.5
Protection class: IP54
Motor protection: Integrated active temperature management
Impeller : ZAmid, uncoated, Ultramarine blue
Conformity: ErP 2015, CE
ErP-data
Efficiency η_{statA}: 67.2 %
Efficiency: N_{actual} = 72.0 / N_{target} = 62**
EC controller integrated
*Rated data
**ErP 2015

Characteristic curve

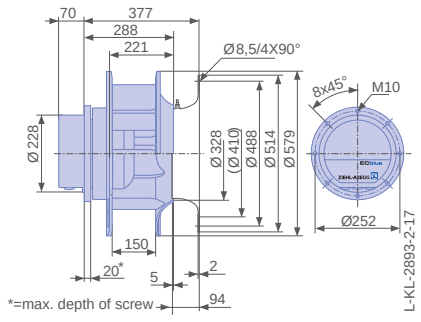


measured with inlet ring, without guard grille according to ISO 5801

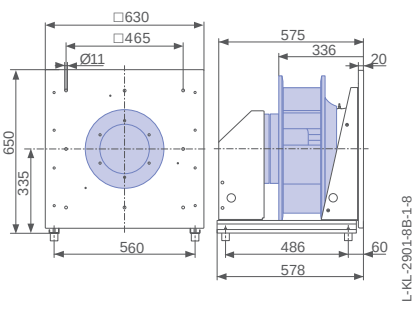
Inlet ring	00401299	Page 450
Connection diagram	1360-401	Page 548
Rubber dampers	30x30 / 40	Page 454
Spring vibration dampers	MSN 5	Page 454
System components		Page 448

Dimensions [mm]

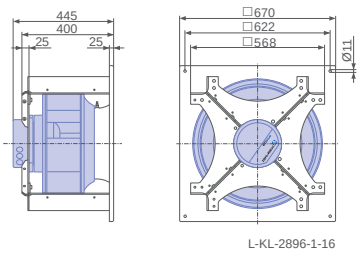
Free-running motor impeller RH
in installation position H/Vu/Vo



Plug fan ER in installation position H



Ventilation unit GR in installation position H

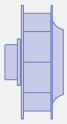
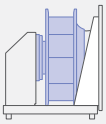
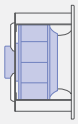
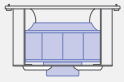


Performance data

Type	Characteristic curve	Speed n [min⁻¹]	Operating point	Current I [A]	Motor input power P_{sys} [W]	Suction side sound power level L_{WA5} [dB]	Maximum ambient temperature t_R [°C]
__50C-ZID.GG.CR	I	1860	①	2.20	1400	87	55
		1860	②	5.40	3500	80	
		1860	③	3.20	2100	88	
	II	1760	④	1.95	1200	86	60
		1760	⑤	4.60	3000	78	
		1760	⑥	2.80	1800	87	
	III	1650	⑦	1.65	1000	84	
		1650	⑧	3.80	2500	77	
		1650	⑨	2.30	1500	85	
	IV	1400	⑩	1.15	640	79	
		1400	⑪	2.40	1500	73	
		1400	⑫	1.55	940	81	
	V	1150	⑬	0.80	380	74	
		1150	⑭	1.40	860	68	
		1150	⑮	1.00	540	75	

Current values determined at 400V

Fan ordering information

Design	RH*	ER**	GR**	GR**	GR**
Installation position	H/Vu/Vo	H	H	Vo	Vu
					
Type	**RH50C-ZID.GG.CR**	**ER50C-ZID.GG.CR**	**GR50C-ZID.GG.CR**	**GR50C-ZID.GG.CR**	**GR50C-ZID.GG.CR**
Basic electronics					
Article no.	**114623**	**114672/A01**	**114652/H01**	**114652/O01**	**114652/U01**
Premium electronics					
Article no.	**114624**				
Weight [kg]	24.00	45.00	47.00	47.00	47.00

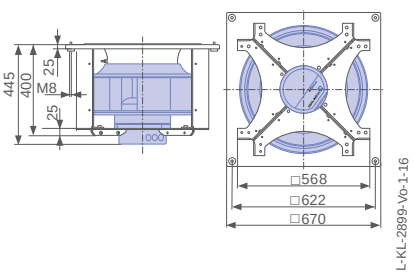
* Inlet ring not included

** Inlet ring integrated

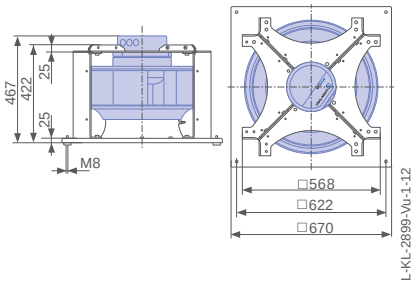
Control technology

Control module	Operating terminal	Expansion module
		
Page 464	Page 476	Page 473

Ventilation unit GR in installation position Vo



Ventilation unit GR in installation position Vu



C p r o - E C b l u e

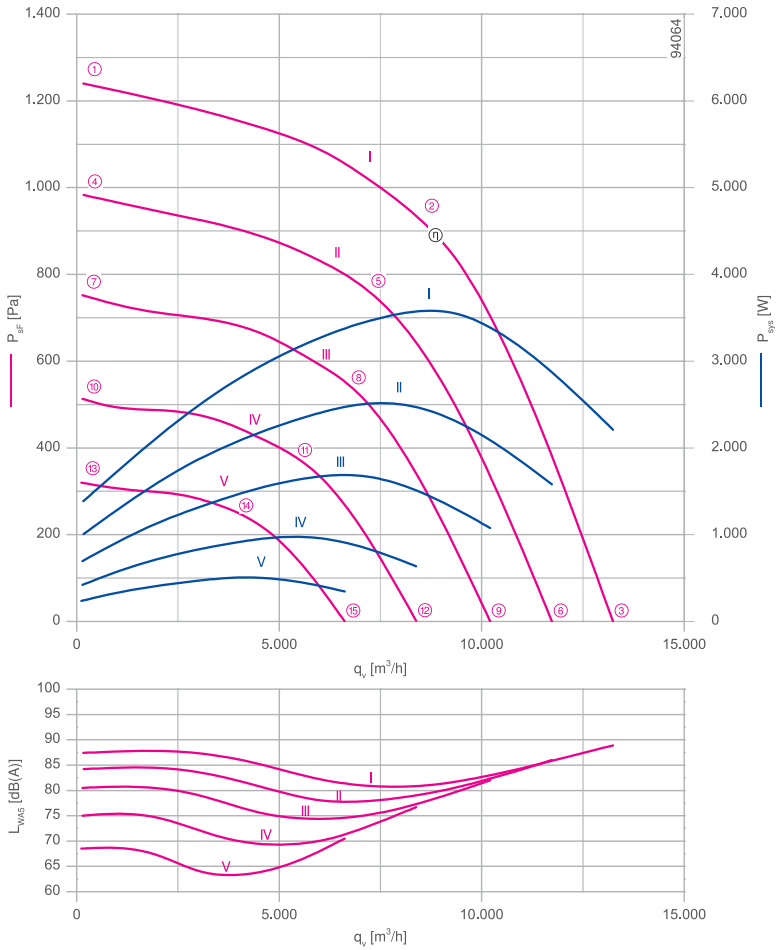
for three phase alternating current, 380-480 V

R H 5 0 C - Z I K

Description

Motor technology: EC
Rated voltage U: **3~380-480 V***
Rated frequency f: **50/60 Hz***
Motor input power P: **3.60 kW***
Rated current I: **5.80-4.60 A***
Rated speed n: **1860 min^{-1}***
Thermal class: **THCL155***
Min. permitted ambient temperature t_R: -20 °C
Max. permitted ambient temperature t_R at n_{max}: 50 °C
Electrical connection: integrated Controller
Number of blades : 7
Balancing quality: G 2.5
Protection class: IP54
Motor protection: Integrated active temperature management
Impeller : ZAmid, uncoated, Ultramarine blue
Conformity: ErP 2015, CE
ErP-data
Efficiency η_{statA}: 65.9 %
Efficiency: N_{actual} = 70.6 / N_{target} = 62**
EC controller integrated
*Rated data
**ErP 2015

Characteristic curve

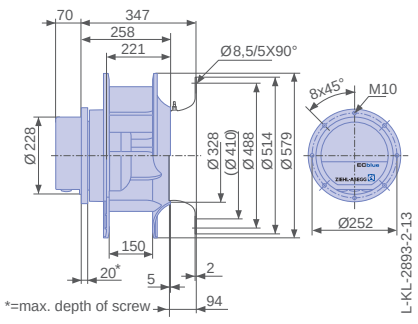


measured in inlet ring without guard grille according to ISO 5801

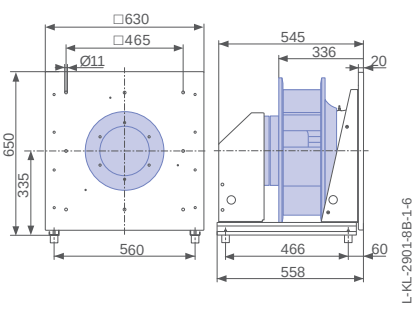
Inlet ring	00401299	Page 450
Connection diagram	1360-401	Page 548
Rubber dampers	30x30 / 40	Page 454
Spring vibration dampers	MSN 5	Page 454
System components		Page 448

Dimensions [mm]

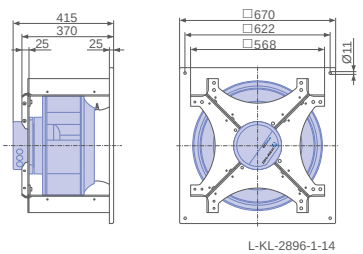
Free-running motor impeller RH
in installation position H/Vu/Vo



Plug fan ER in installation position H



Ventilation unit GR in installation position H

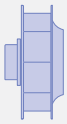
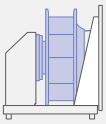
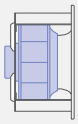
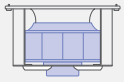


Performance data

Type	Characteristic curve	Speed n [min⁻¹]	Operating point	Current I [A]	Motor input power P_{sys} [W]	Suction side sound power level L_{WA5} [dB]	Maximum ambient temperature t_R [°C]
__50C-ZIK.GG.CR	I	1860	①	2.20	1400	87	50
		1860	②	5.40	3600	81	
		1860	③	3.40	2200	89	
	II	1660	④	1.65	1000	84	60
		1660	⑤	3.90	2500	78	
		1660	⑥	2.50	1600	86	
	III	1450	⑦	1.20	700	81	
		1450	⑧	2.60	1700	75	
		1450	⑨	1.75	1100	82	
	IV	1200	⑩	0.82	420	75	
		1200	⑪	1.60	980	70	
		1200	⑫	1.10	640	77	
	V	950	⑬	0.56	240	69	
		950	⑭	0.94	500	63	
		950	⑮	0.72	340	71	

Current values determined at 400V

Fan ordering information

Design	RH*	ER**	GR**	GR**	GR**
Installation position	H/Vu/Vo	H	H	Vo	Vu
					
Type	**RH50C-ZIK.GG.CR**	**ER50C-ZIK.GG.CR**	**GR50C-ZIK.GG.CR**	**GR50C-ZIK.GG.CR**	**GR50C-ZIK.GG.CR**
Basic electronics					
Article no.	**114619**	**114670/A01**	**114650/H01**	**114650/O01**	**114650/U01**
Premium electronics					
Article no.	**114620**				
Weight [kg]	24.00	44.00	46.00	46.00	46.00

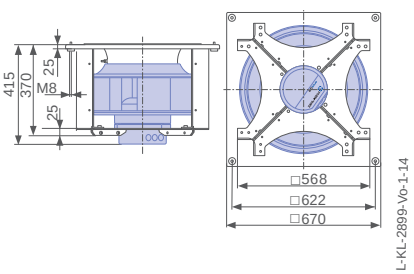
* Inlet ring not included

** Inlet ring integrated

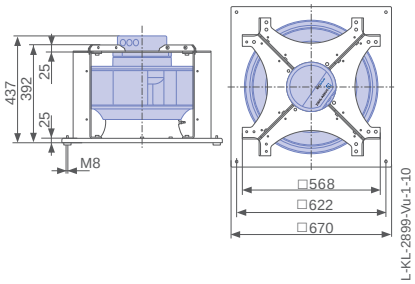
Control technology

Control module	Operating terminal	Expansion module
		
Page 464	Page 476	Page 473

Ventilation unit GR in installation position Vo



Ventilation unit GR in installation position Vu



C p r o - E C b l u e

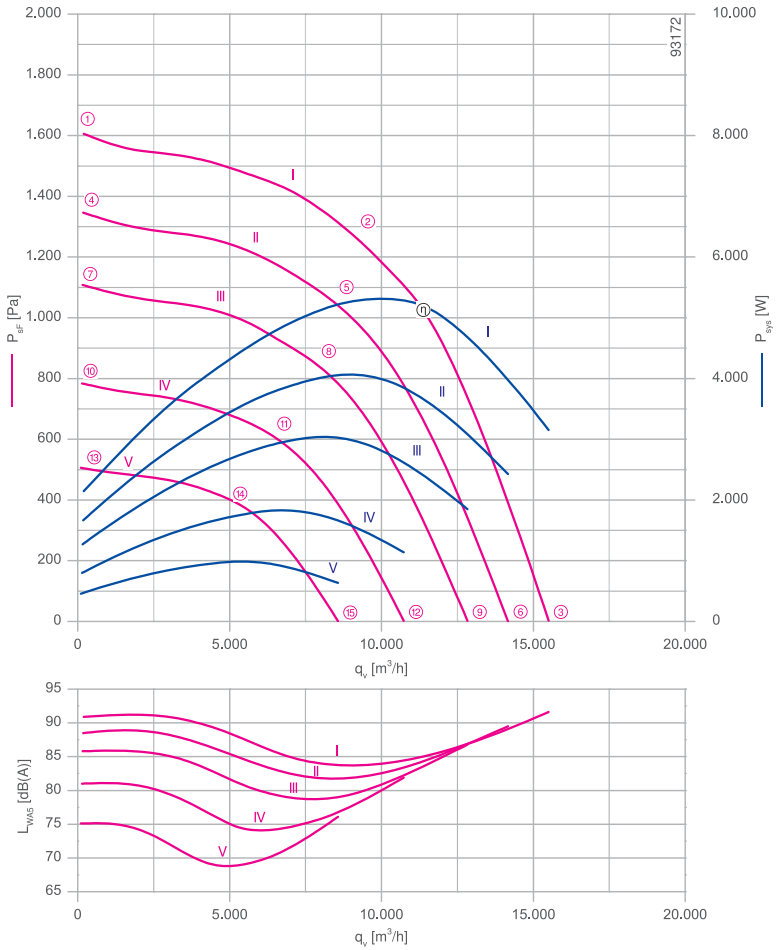
for three phase alternating current, 380-480 V

R H 5 0 C - Z I D

Description

Motor technology: EC
Rated voltage U: **3~380-480 V***
Rated frequency f: **50/60 Hz***
Motor input power P: **5,40 kW***
Rated current I: **8.60-6.80 A***
Rated speed n: **2130 min^{-1}***
Thermal class: **THCL155***
Min. permitted ambient temperature t_R: -20 °C
Max. permitted ambient temperature t_R at n_{max}: 40 °C
Electrical connection: integrated Controller
Number of blades : 7
Balancing quality: G 2.5
Protection class: IP54
Motor protection: Integrated active temperature management
Impeller : ZAmid, uncoated, Ultramarine blue
Conformity: ErP 2015, CE
ErP-data
Efficiency η_{statA}: 66.5 %
Efficiency: N_{actual} = 69.5 / N_{target} = 62**
EC controller integrated
*Rated data
**ErP 2015

Characteristic curve

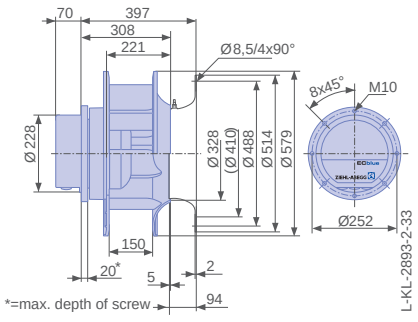


measured with inlet ring, without guard grille according to ISO 5801

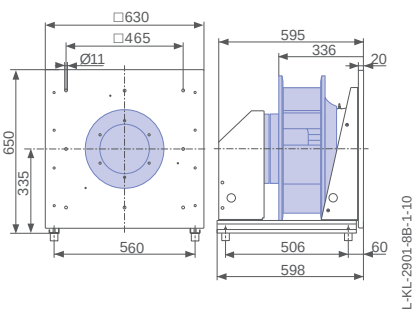
Inlet ring	00401299	Page 450
Connection diagram	1360-401	Page 548
Rubber dampers	30x30 / 40	Page 454
Spring vibration dampers	MSN 5	Page 454
System components		Page 448

Dimensions [mm]

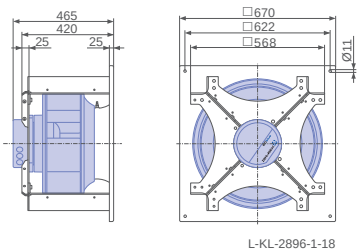
Free-running motor impeller RH
in installation position H/Vu/Vo



Plug fan ER in installation position H



Ventilation unit GR in installation position H

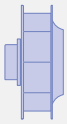
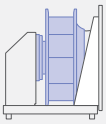
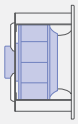
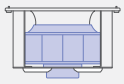


Performance data

Type	Characteristic curve	Speed n [min⁻¹]	Operating point	Current I [A]	Motor input power P_{sys} [W]	Suction side sound power level L_{WA5} [dB]	Maximum ambient temperature t_R [°C]
__50C-ZID.GL.CR	I	2130	①	3.30	2100	91	40
		2130	②	8.20	5400	84	
		2130	③	4.80	3200	92	
	II	1950	④	2.60	1650	89	
		1950	⑤	6.20	4000	82	
		1950	⑥	3.70	2400	90	
	III	1770	⑦	2.10	1250	86	60
		1770	⑧	4.60	3000	79	
		1770	⑨	2.90	1850	87	
	IV	1490	⑩	1.35	800	81	
		1490	⑪	2.90	1850	74	
		1490	⑫	1.85	1150	82	
	V	1200	⑬	0.92	460	75	
		1200	⑭	1.65	980	69	
		1200	⑮	1.15	640	76	

Current values determined at 400V

Fan ordering information

Design	RH*	ER**	GR**	GR**	GR**
Installation position	H/Vu/Vo	H	H	Vo	Vu
					
Type	**RH50C-ZID.GL.CR**	**ER50C-ZID.GL.CR**	**GR50C-ZID.GL.CR**	**GR50C-ZID.GL.CR**	**GR50C-ZID.GL.CR**
Basic electronics					
Article no.	**114711**	**114733/A01**	**114724/H01**	**114724/O01**	**114724/U01**
Premium electronics					
Article no.	**114712**				
Weight [kg]	29.00	49.00	51.00	52.00	52.00

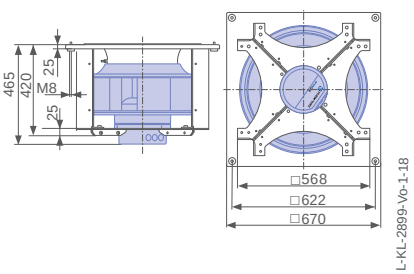
* Inlet ring not included

** Inlet ring integrated

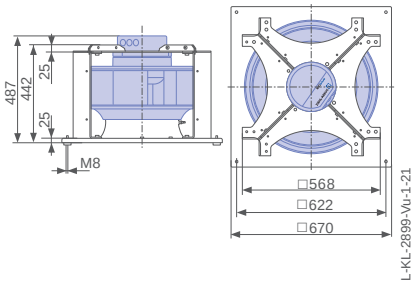
Control technology

Control module	Operating terminal	Expansion module
		
Page 464	Page 476	Page 473

Ventilation unit GR in installation position Vo



Ventilation unit GR in installation position Vu



C p r o - E C b l u e

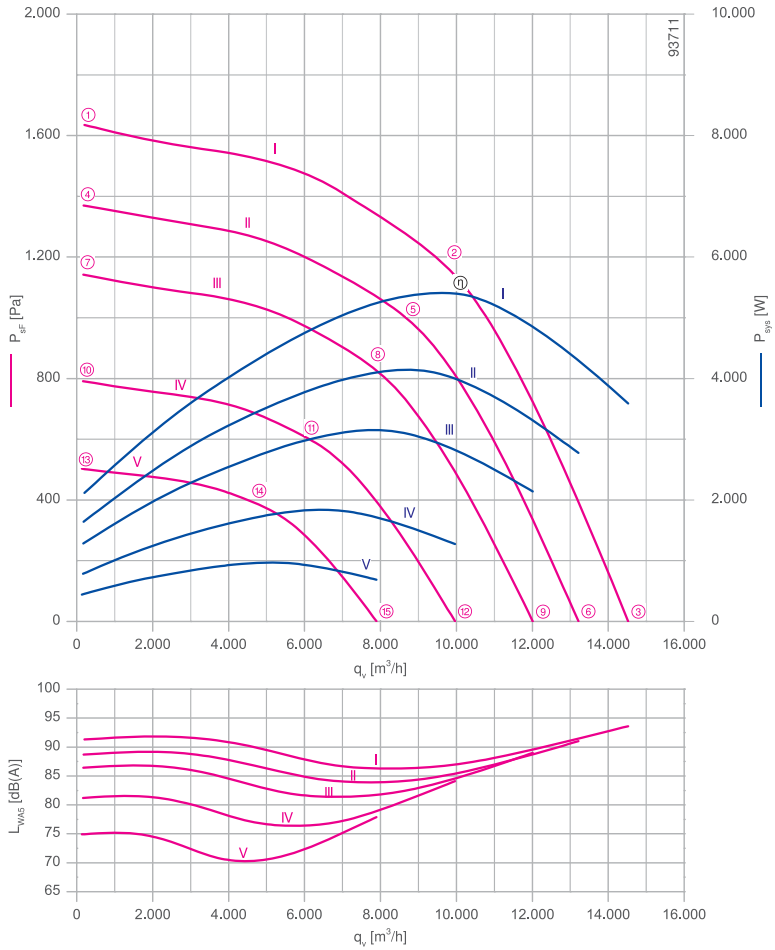
for three phase alternating current, 380-480 V

R H 5 0 C - Z I K

Description

Motor technology: EC
Rated voltage U: **3~380-480 V***
Rated frequency f: **50/60 Hz***
Motor input power P: **5,40 kW***
Rated current I: **8.60-6.80 A***
Rated speed n: **2140 min^{-1}***
Thermal class: **THCL155***
Min. permitted ambient temperature t_R: -20 °C
Max. permitted ambient temperature t_R at n_{max}: 40 °C
Electrical connection: integrated Controller
Number of blades : 7
Balancing quality: G 2.5
Protection class: IP54
Motor protection: Integrated active temperature management
Impeller : ZAmid, uncoated, Ultramarine blue
Conformity: ErP 2015, CE
ErP-data
Efficiency η_{statA}: 62.1 %
Efficiency: N_{actual} = 64.9 / N_{target} = 62**
EC controller integrated
*Rated data
**ErP 2015

Characteristic curve

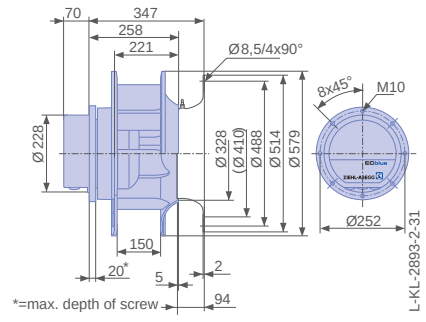


measured with inlet ring, without guard grille according to ISO 5801

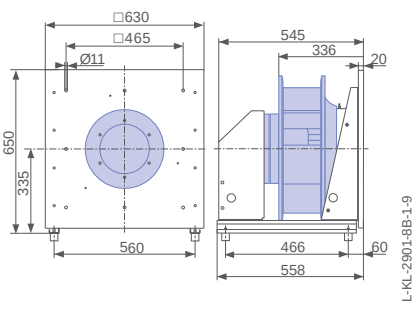
Inlet ring	00401299	Page 450
Connection diagram	1360-401	Page 548
Rubber dampers	30x30 / 40	Page 454
Spring vibration dampers	MSN 5	Page 454
System components		Page 448

Dimensions [mm]

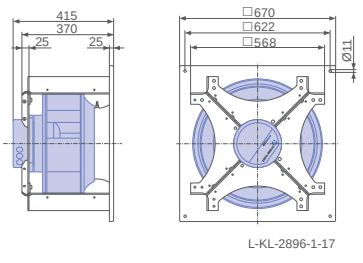
Free-running motor impeller RH
in installation position H/Vu/Vo



Plug fan ER in installation position H



Ventilation unit GR in installation position H

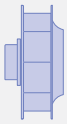
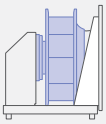
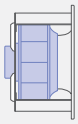
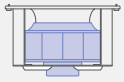


Performance data

Type	Characteristic curve	Speed n [min⁻¹]	Operating point	Current I [A]	Motor input power P_{sys} [W]	Suction side sound power level L_{WA5} [dB]	Maximum ambient temperature t_R [°C]
__50C-ZIK.GL.CR	I	2140	①	3.30	2100	91	40
		2140	②	8.40	5400	87	
		2140	③	5.60	3600	94	
	II	1960	④	2.60	1650	89	
		1960	⑤	6.40	4200	85	
		1960	⑥	4.20	2800	91	
	III	1790	⑦	2.10	1300	86	60
		1790	⑧	4.80	3200	82	
		1790	⑨	3.30	2100	89	
	IV	1490	⑩	1.35	780	81	
		1490	⑪	2.90	1850	77	
		1490	⑫	2.00	1250	84	
	V	1190	⑬	0.90	440	75	
		1190	⑭	1.60	960	71	
		1190	⑮	1.20	680	78	

Current values determined at 400V

Fan ordering information

Design	RH*	ER**	GR**	GR**	GR**
Installation position	H/Vu/Vo	H	H	Vo	Vu
					
Type	**RH50C-ZIK.GL.CR**	**ER50C-ZIK.GL.CR**	**GR50C-ZIK.GL.CR**	**GR50C-ZIK.GL.CR**	**GR50C-ZIK.GL.CR**
Basic electronics					
Article no.	**114709**	**114732/A01**	**114723/H01**	**114723/O01**	**114723/U01**
Premium electronics					
Article no.	**114710**				
Weight [kg]	28.00	49.00	50.00	51.00	51.00

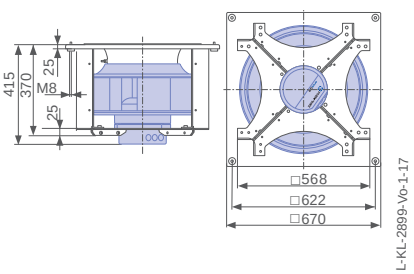
* Inlet ring not included

** Inlet ring integrated

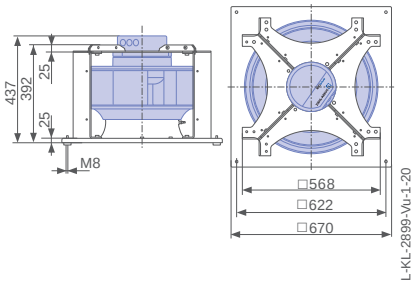
Control technology

Control module	Operating terminal	Expansion module
		
Page 464	Page 476	Page 473

Ventilation unit GR in installation position Vo



Ventilation unit GR in installation position Vu



C p r o - E C b l u e

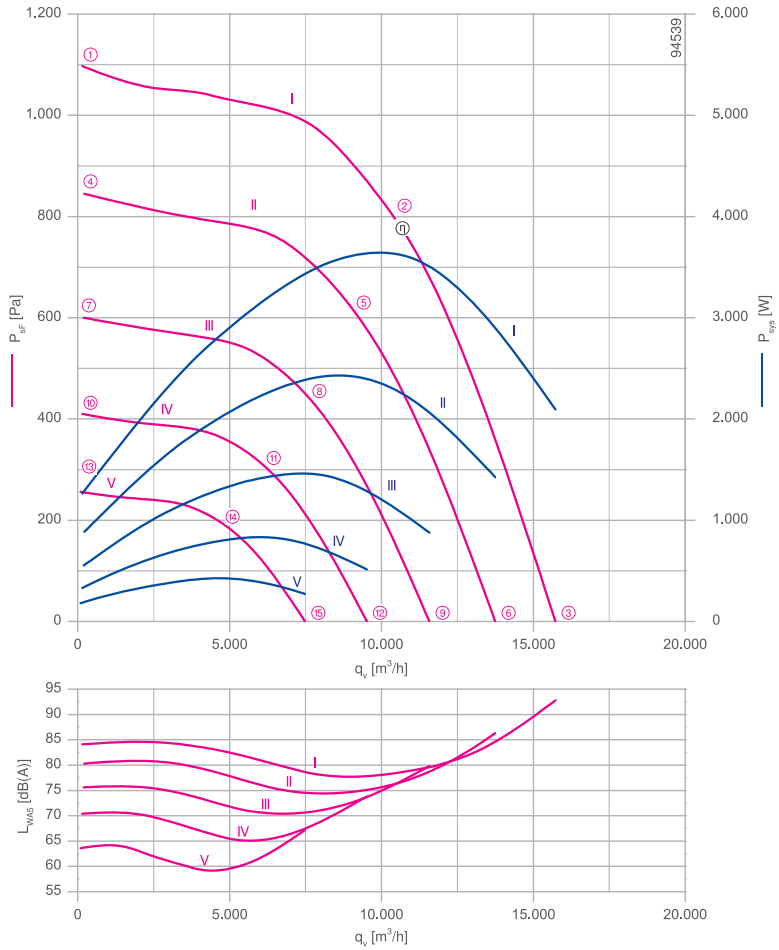
for three phase alternating current, 200-240 V

R H 5 6 C - Z I D

Description

Motor technology: EC
Rated voltage U: **3~200-240 V***
Rated frequency f: **50/60 Hz***
Motor input power P: **3.60 kW***
Rated current I: **11.00-9.20 A***
Rated speed n: **1550 min^{-1}***
Thermal class: **THCL155***
Min. permitted ambient temperature t_R: -20 °C
Max. permitted ambient temperature t_R at n_{max}: 50 °C
Electrical connection: integrated Controller
Number of blades : 7
Balancing quality: G 2.5
Protection class: IP54
Motor protection: Integrated active temperature management
Impeller : ZAmid, uncoated, Ultramarine blue
Conformity: ErP 2015, CE
ErP-data
Efficiency η_{statA}: 68.4 %
Efficiency: N_{actual} = 73.0 / N_{target} = 62**
EC controller integrated
*Rated data
**ErP 2015

Characteristic curve

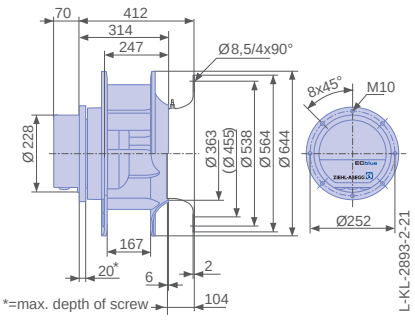


measured with inlet ring, without guard grille according to ISO 5801

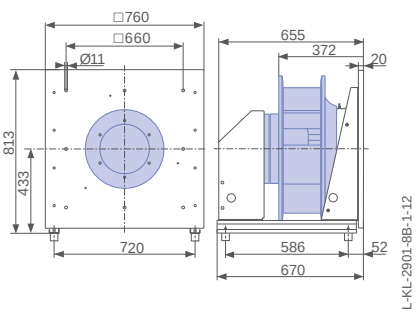
Inlet ring	00401300	Page 450
Connection diagram	1360-401	Page 548
Rubber dampers	30x30 / 40	Page 454
Spring vibration dampers	MSN 6	Page 454
System components		Page 448

Dimensions [mm]

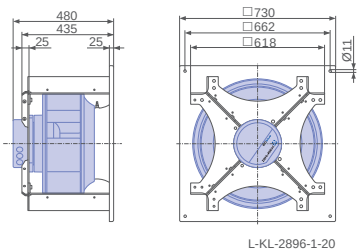
Free-running motor impeller RH
in installation position H/Vu/Vo



Plug fan ER in installation position H



Ventilation unit GR in installation position H

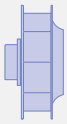
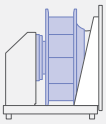
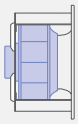
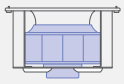


Performance data

Type	Characteristic curve	Speed n [min⁻¹]	Operating point	Current I [A]	Motor input power P_{sys} [W]	Suction side sound power level L_{WA5} [dB]	Maximum ambient temperature t_R [°C]
__56C-ZID.GG.CR	I	1550	①	3.40	1250	84	50
		1550	②	9.60	3600	78	
		1550	③	5.60	2100	93	
	II	1360	④	2.40	880	80	60
		1360	⑤	6.40	2400	74	
		1360	⑥	3.80	1450	86	
	III	1150	⑦	1.50	560	76	
		1150	⑧	3.80	1450	71	
		1150	⑨	2.30	880	80	
	IV	950	⑩	0.96	330	70	
		950	⑪	2.20	840	65	
		950	⑫	1.40	520	74	
	V	750	⑬	0.60	180	64	
		750	⑭	1.20	420	60	
		750	⑮	0.82	270	67	

Current values determined at 230V

Fan ordering information

Design	RH*	ER**	GR**	GR**	GR**
Installation position	H/Vu/Vo	H	H	Vo	Vu
					
Type	**RH56C-ZID.GG.CR**	**ER56C-ZID.GG.CR**	**GR56C-ZID.GG.CR**	**GR56C-ZID.GG.CR**	**GR56C-ZID.GG.CR**
Basic electronics					
Article no.	**114629**	**114675/A01**	**114655/H01**	**114655/O01**	**114655/U01**
Premium electronics					
Article no.	**114630**				
Weight [kg]	27.00	57.00	58.00	59.00	59.00

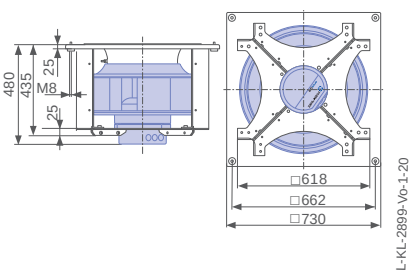
* Inlet ring not included

** Inlet ring integrated

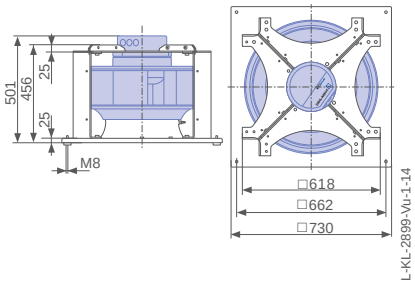
Control technology

Control module	Operating terminal	Expansion module
		
Page 464	Page 476	Page 473

Ventilation unit GR in installation position Vo



Ventilation unit GR in installation position Vu

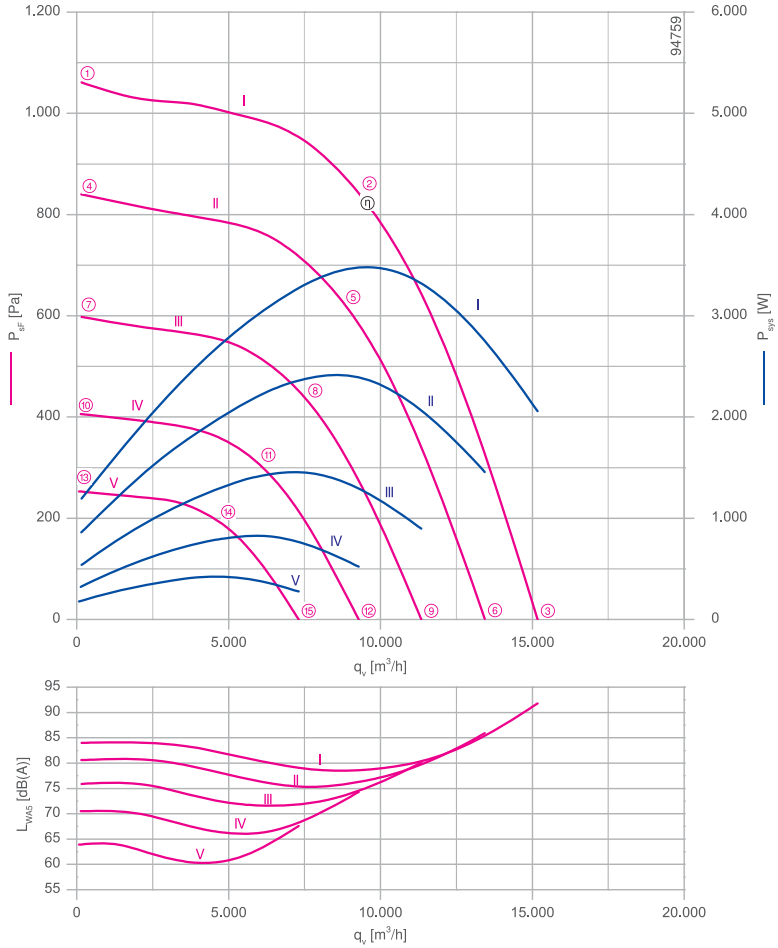


C p r o - E C b l u e

for three phase alternating current, 200-240 V

R H 5 6 C - Z I K

Characteristic curve



measured with inlet ring, without guard grille according to ISO 5801

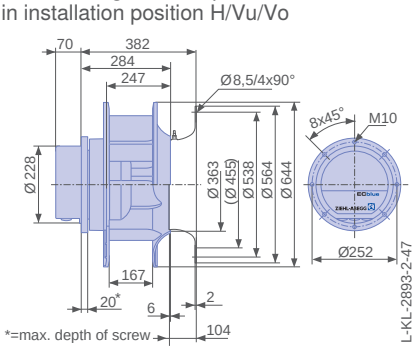
Description

Motor technology: EC
Rated voltage U: **3~200-240 V***
Rated frequency f: **50/60 Hz***
Motor input power P: **3.50 kW***
Rated current I: **10.50-8.80 A***
Rated speed n: **1530 min^{-1}***
Thermal class: **THCL155***
Min. permitted ambient temperature t_R: -20 °C
Max. permitted ambient temperature t_R at n_{max}: 40 °C
Electrical connection: integrated Controller
Number of blades : 7
Balancing quality: G 2.5
Protection class: IP54
Motor protection: Integrated active temperature management
Impeller : ZAmid, uncoated, Ultramarine blue
Conformity: ErP 2015, CE
ErP-data
Efficiency η_{statA}: 67.5 %
Efficiency: N_{actual} = 72.4 / N_{target} = 62**
EC controller integrated
*Rated data
**ErP 2015

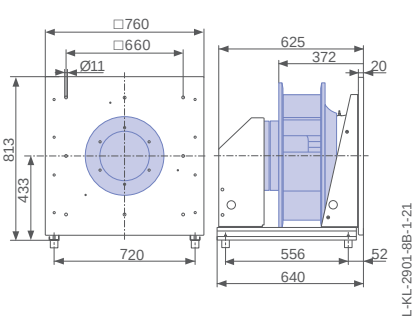
Inlet ring	00401300	Page 450
Connection diagram	1360-401	Page 548
Rubber dampers	30x30 / 40	Page 454
Spring vibration dampers	MSN 6	Page 454
System components		Page 448

Dimensions [mm]

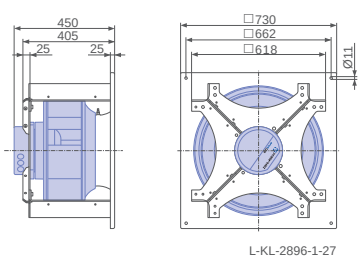
Free-running motor impeller RH
in installation position H/Vu/Vo



Plug fan ER in installation position H



Ventilation unit GR in installation position H

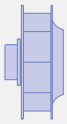
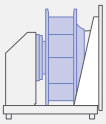
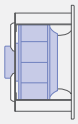
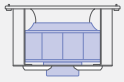


Performance data

Type	Characteristic curve	Speed n [min⁻¹]	Operating point	Current I [A]	Motor input power P_{sys} [W]	Suction side sound power level L_{WA5} [dB]	Maximum ambient temperature t_R [°C]
__56C-ZIK.GG.CR	I	1530	①	3.20	1200	84	40
		1530	②	9.20	3500	79	
		1530	③	5.40	2100	92	
	II	1360	④	2.30	860	81	60
		1360	⑤	6.40	2400	76	
		1360	⑥	3.80	1450	86	
	III	1150	⑦	1.45	540	76	
		1150	⑧	3.80	1450	72	
		1150	⑨	2.40	900	80	
	IV	950	⑩	0.94	320	71	
		950	⑪	2.20	820	66	
		950	⑫	1.40	520	74	
	V	750	⑬	0.60	180	64	
		750	⑭	1.20	420	61	
		750	⑮	0.82	280	68	

Current values determined at 230V

Fan ordering information

Design	RH*	ER**	GR**	GR**	GR**
Installation position	H/Vu/Vo	H	H	Vo	Vu
					
Type	**RH56C-ZIK.GG.CR**	**ER56C-ZIK.GG.CR**	**GR56C-ZIK.GG.CR**	**GR56C-ZIK.GG.CR**	**GR56C-ZIK.GG.CR**
Basic electronics					
Article no.	**114625**	**114673/A01**	**114653/H01**	**114653/O01**	**114653/U01**
Premium electronics					
Article no.	**114626**				
Weight [kg]	27.00	56.00	57.00	58.00	58.00

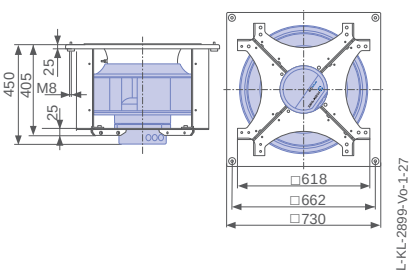
* Inlet ring not included

** Inlet ring integrated

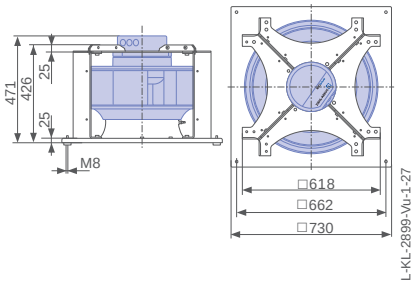
Control technology

Control module	Operating terminal	Expansion module
		
Page 464	Page 476	Page 473

Ventilation unit GR in installation position Vo



Ventilation unit GR in installation position Vu

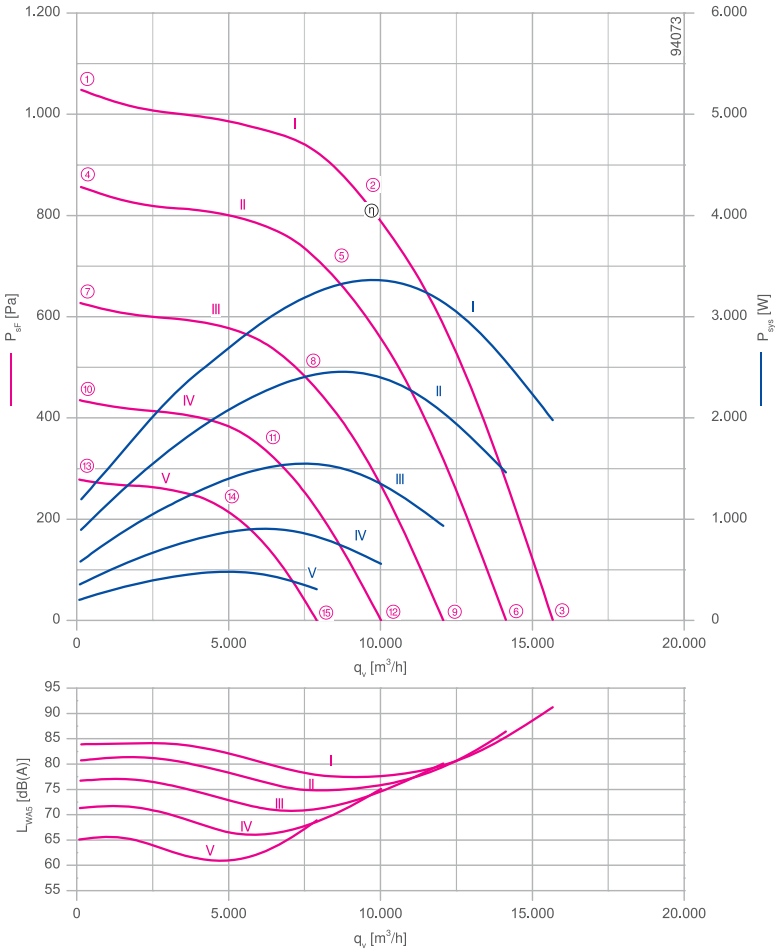


C p r o - E C b l u e

for three phase alternating current, 380-480 V

R H 5 6 C - Z I D

Characteristic curve



measured with inlet ring, without guard grille according to ISO 5801

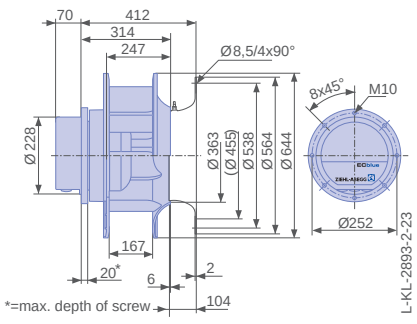
Description

Motor technology: EC
Rated voltage U: **3~380-480 V***
Rated frequency f: **50/60 Hz***
Motor input power P: **3.40 kW***
Rated current I: **5.40-4.20 A***
Rated speed n: **1550 min^{-1}***
Thermal class: **THCL155***
Min. permitted ambient temperature t_R: -20 °C
Max. permitted ambient temperature t_R at n_{max}: 45 °C
Electrical connection: integrated Controller
Number of blades : 7
Balancing quality: G 2.5
Protection class: IP54
Motor protection: Integrated active temperature management
Impeller : ZAmid, uncoated, Ultramarine blue
Conformity: ErP 2015, CE
ErP-data
Efficiency η_{statA}: 70.2 %
Efficiency: N_{actual} = 75.2 / N_{target} = 62**
EC controller integrated
*Rated data
**ErP 2015

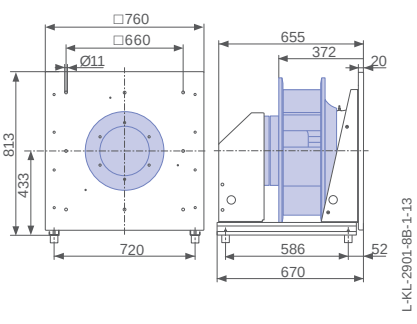
Inlet ring	00401300	Page 450
Connection diagram	1360-401	Page 548
Rubber dampers	30x30 / 40	Page 454
Spring vibration dampers	MSN 6	Page 454
System components		Page 448

Dimensions [mm]

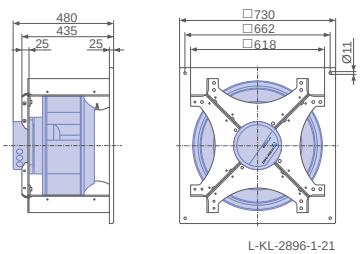
Free-running motor impeller RH
in installation position H/Vu/Vo



Plug fan ER in installation position H



Ventilation unit GR in installation position H

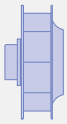
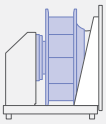
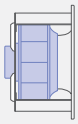
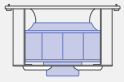


Performance data

Type	Characteristic curve	Speed n [min⁻¹]	Operating point	Current I [A]	Motor input power P_{sys} [W]	Suction side sound power level L_{WA5} [dB]	Maximum ambient temperature t_R [°C]
__56C-ZID.GG.CR	I	1550	①	1.90	1200	84	45
		1550	②	5.20	3400	78	
		1550	③	3.00	2000	91	
	II	1400	④	1.50	900	81	60
		1400	⑤	3.80	2500	75	
		1400	⑥	2.30	1450	86	
	III	1200	⑦	1.05	580	77	
		1200	⑧	2.40	1550	71	
		1200	⑨	1.55	940	80	
	IV	1000	⑩	0.74	360	71	
		1000	⑪	1.50	900	66	
		1000	⑫	1.00	560	75	
	V	800	⑬	0.50	200	65	
		800	⑭	0.92	480	61	
		800	⑮	0.68	310	69	

Current values determined at 400V

Fan ordering information

Design	RH*	ER**	GR**	GR**	GR**
Installation position	H/Vu/Vo	H	H	Vo	Vu
					
Type	**RH56C-ZID.GG.CR**	**ER56C-ZID.GG.CR**	**GR56C-ZID.GG.CR**	**GR56C-ZID.GG.CR**	**GR56C-ZID.GG.CR**
Basic electronics					
Article no.	**114631**	**114676/A01**	**114656/H01**	**114656/O01**	**114656/U01**
Premium electronics					
Article no.	**114632**				
Weight [kg]	27.00	57.00	58.00	59.00	59.00

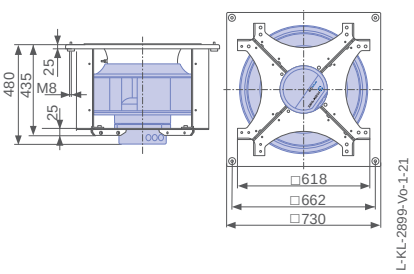
* Inlet ring not included

** Inlet ring integrated

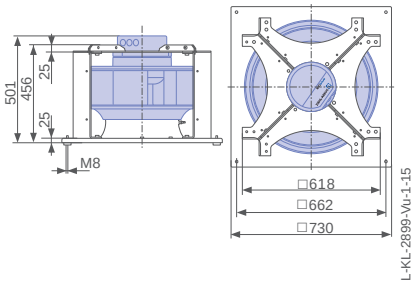
Control technology

Control module	Operating terminal	Expansion module
		
Page 464	Page 476	Page 473

Ventilation unit GR in installation position Vo



Ventilation unit GR in installation position Vu



C p r o - E C b l u e

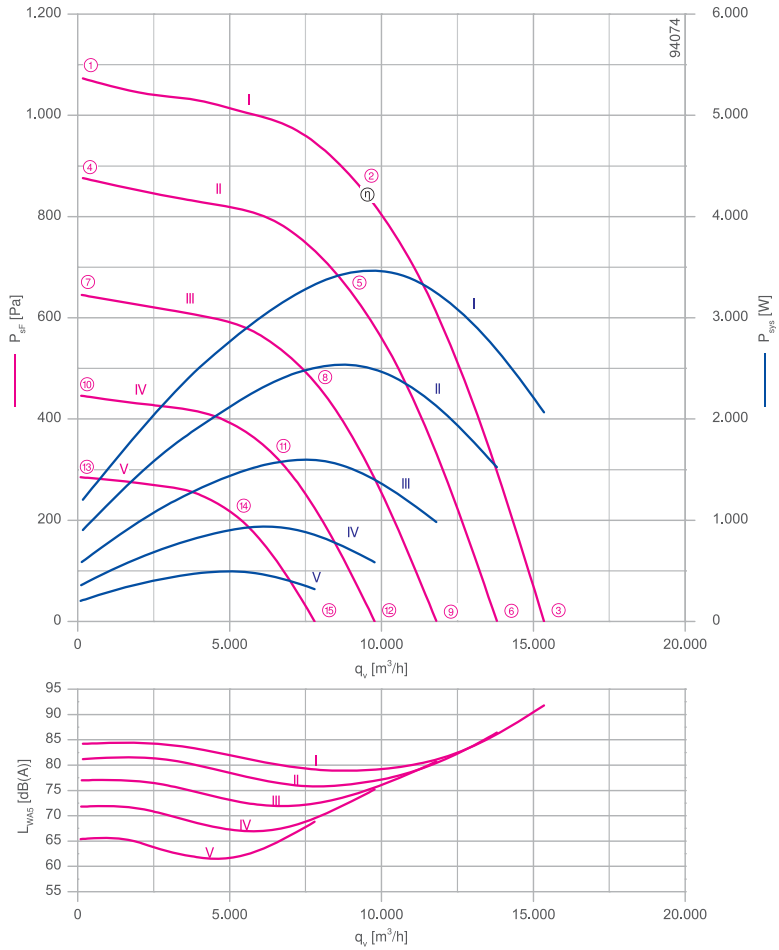
for three phase alternating current, 380-480 V

R H 5 6 C - Z I K

Description

Motor technology: EC
Rated voltage U: **3~380-480 V***
Rated frequency f: **50/60 Hz***
Motor input power P: **3.50 kW***
Rated current I: **5.60-4.40 A***
Rated speed n: **1550 min^{-1}***
Thermal class: **THCL155***
Min. permitted ambient temperature t_R: -20 °C
Max. permitted ambient temperature t_R at n_{max}: 45 °C
Electrical connection: integrated Controller
Number of blades : 7
Balancing quality: G 2.5
Protection class: IP54
Motor protection: Integrated active temperature management
Impeller : ZAmid, uncoated, Ultramarine blue
Conformity: ErP 2015, CE
ErP-data
Efficiency η_{statA}: 69.3 %
Efficiency: N_{actual} = 74.2 / N_{target} = 62**
EC controller integrated
*Rated data
**ErP 2015

Characteristic curve

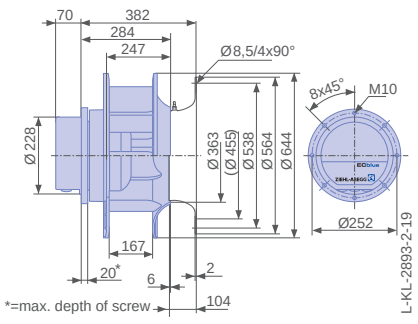


measured with inlet ring, without guard grille according to ISO 5801

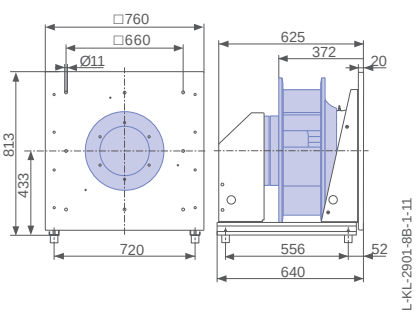
Inlet ring	00401300	Page 450
Connection diagram	1360-401	Page 548
Rubber damper	30x30 / 40	Page 454
Spring damper	MSN 6	Page 454
System components		Page 448

Dimensions [mm]

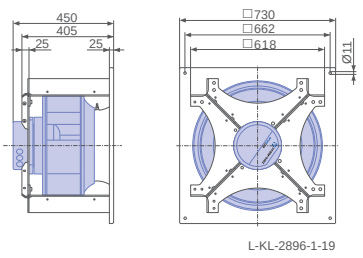
Free-running motor impeller RH
in installation position H/Vu/Vo



Plug fan ER in installation position H



Ventilation unit GR in installation position H

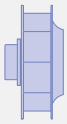
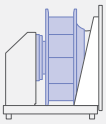
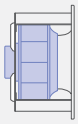
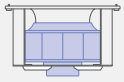


Performance data

Type	Characteristic curve	Speed n [min⁻¹]	Operating point	Current I [A]	Motor input power P_{sys} [W]	Suction side sound power level L_{WA5} [dB]	Maximum ambient temperature t_R [°C]
__56C-ZIK.GG.CR	I	1550	①	1.90	1200	84	45
		1550	②	5.20	3500	79	
		1550	③	3.20	2100	92	
	II	1400	④	1.50	900	81	60
		1400	⑤	3.90	2500	76	
		1400	⑥	2.40	1500	86	
	III	1200	⑦	1.05	580	77	
		1200	⑧	2.50	1600	73	
		1200	⑨	1.60	980	81	
	IV	1000	⑩	0.74	360	72	
		1000	⑪	1.55	940	67	
		1000	⑫	1.05	580	75	
	V	800	⑬	0.52	200	65	
		800	⑭	0.92	500	62	
		800	⑮	0.70	320	69	

Current values determined at 400V

Fan ordering information

Design	RH*	ER**	GR**	GR**	GR**
Installation position	H/Vu/Vo	H	H	Vo	Vu
					
Type	**RH56C-ZIK.GG.CR**	**ER56C-ZIK.GG.CR**	**GR56C-ZIK.GG.CR**	**GR56C-ZIK.GG.CR**	**GR56C-ZIK.GG.CR**
Basic electronics					
Article no.	**114627**	**114674/A01**	**114654/H01**	**114654/O01**	**114654/U01**
Premium electronics					
Article no.	**114628**				
Weight [kg]	27.00	56.00	57.00	58.00	58.00

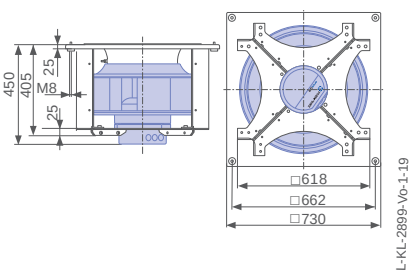
* Inlet ring not included

** Inlet ring integrated

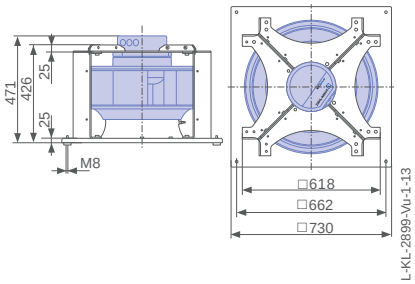
Control technology

Control module	Operating terminal	Expansion module
		
Page 464	Page 476	Page 473

Ventilation unit GR in installation position Vo



Ventilation unit GR in installation position Vu

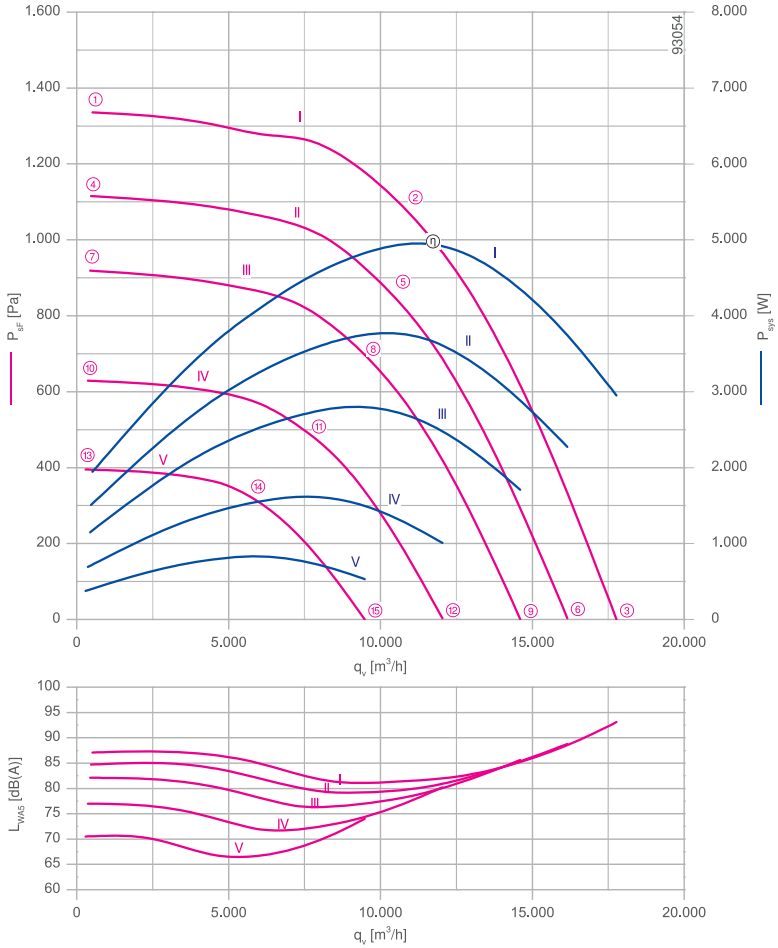


C p r o - E C b l u e

for three phase alternating current, 380-480 V

R H 5 6 C - Z I D

Characteristic curve



measured with inlet ring, without guard grille according to ISO 5801

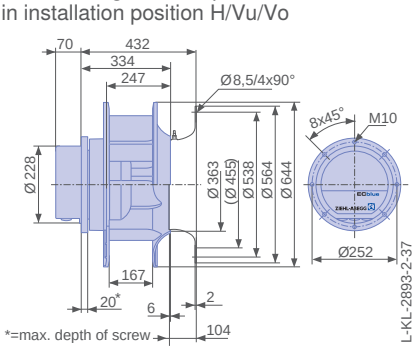
Description

Motor technology: EC
Rated voltage U: **3~380-480 V***
Rated frequency f: **50/60 Hz***
Motor input power P: **5,00 kW***
Rated current I: **8.00-6.40 A***
Rated speed n: **1750 min^{-1}***
Thermal class: **THCL155***
Min. permitted ambient temperature t_R: -20 °C
Max. permitted ambient temperature t_R at n_{max}: 40 °C
Electrical connection: integrated Controller
Number of blades : 7
Balancing quality: G 2.5
Protection class: IP54
Motor protection: Integrated active temperature management
Impeller : ZAmid, uncoated, Ultramarine blue
Conformity: ErP 2015, CE
ErP-data
Efficiency η_{statA}: 70.2 %
Efficiency: N_{actual} = 73.4 / N_{target} = 62**
EC controller integrated
*Rated data
**ErP 2015

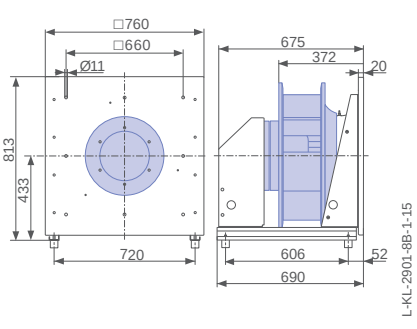
Inlet ring	00401300	Page 450
Connection diagram	1360-401	Page 548
Rubber dampers	30x30 / 40	Page 454
Spring vibration dampers	MSN 6	Page 454
System components		Page 448

Dimensions [mm]

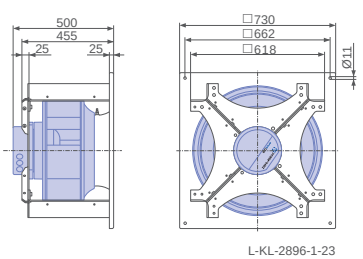
Free-running motor impeller RH
in installation position H/Vu/Vo



Plug fan ER in installation position H



Ventilation unit GR in installation position H

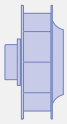
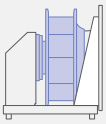
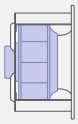
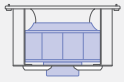


Performance data

Type	Characteristic curve	Speed n [min^{-1}]	Operating point	Current I [A]	Motor input power P_{sys} [W]	Suction side sound power level L_{WA5} [dB]	Maximum ambient temperature t_R [°C]
__56C-ZID.GL.CR	I	1750	①	3.00	1950	87	40
		1750	②	7.60	5000	82	
		1750	③	4.60	2900	93	
	II	1600	④	2.40	1500	85	
		1600	⑤	5.80	3800	79	
		1600	⑥	3.50	2300	89	
	III	1450	⑦	1.85	1150	82	60
		1450	⑧	4.20	2800	77	
		1450	⑨	2.70	1700	86	
	IV	1200	⑩	1.25	700	77	
		1200	⑪	2.50	1600	72	
		1200	⑫	1.65	1000	80	
	V	950	⑬	0.80	380	71	
		950	⑭	1.40	840	67	
		950	⑮	1.00	540	74	

Current values determined at 400V

Fan ordering information

Design	RH*	ER**	GR**	GR**	GR**
Installation position	H/Vu/Vo	H	H	Vo	Vu
					
Type	**RH56C-ZID.GL.CR**	**ER56C-ZID.GL.CR**	**GR56C-ZID.GL.CR**	**GR56C-ZID.GL.CR**	**GR56C-ZID.GL.CR**
Basic electronics					
Article no.	**114715**	**114735/A01**	**114726/H01**	**114726/O01**	**114726/U01**
Premium electronics					
Article no.	**114716**				
Weight [kg]	32.00	61.00	63.00	63.00	63.00

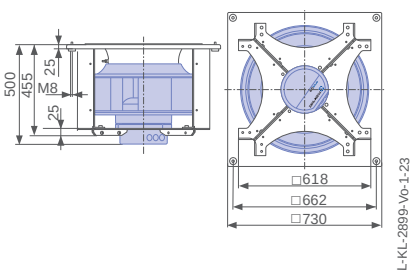
* Inlet ring not included

** Inlet ring integrated

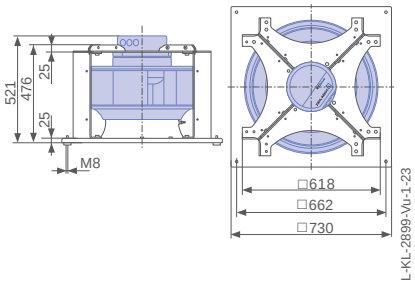
Control technology

Control module	Operating terminal	Expansion module
		
Page 464	Page 476	Page 473

Ventilation unit GR in installation position Vo



Ventilation unit GR in installation position Vu

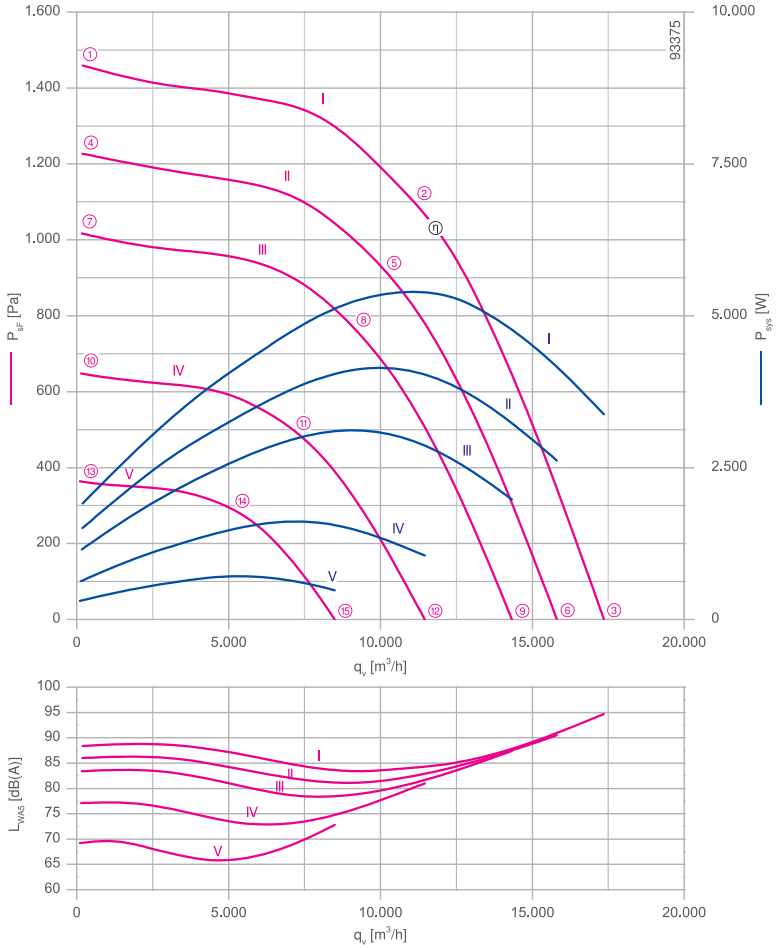


C p r o - E C b l u e

for three phase alternating current, 380-480 V

R H 5 6 C - Z I K

Characteristic curve



measured with inlet ring, without guard grille according to ISO 5801

Description

Motor technology: EC
Rated voltage U: **3~380-480 V***
Rated frequency f: **50/60 Hz***
Motor input power P: **5,40 kW***
Rated current I: **8.60-6.80 A***
Rated speed n: **1800 min^{-1}***
Thermal class: **THCL155***
Min. permitted ambient temperature t_R: -20 °C
Max. permitted ambient temperature t_R at n_{max}: 40 °C
Electrical connection: integrated Controller
Number of blades : 7
Balancing quality: G 2.5
Protection class: IP54
Motor protection: Integrated active temperature management
Impeller : ZAmid, uncoated, Ultramarine blue
Conformity: ErP 2015, CE

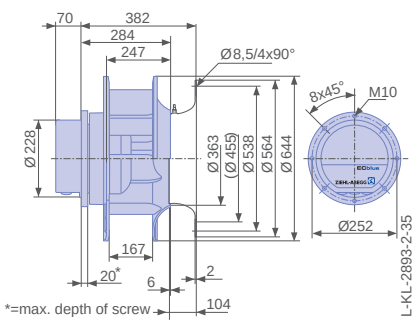
ErP-data

Efficiency η_{statA}: 67.1 %
Efficiency: N_{actual} = 70.0 / N_{target} = 62**
EC controller integrated
*Rated data
**ErP 2015

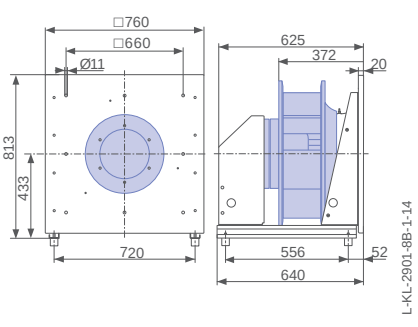
Inlet ring	00401300	Page 450
Connection diagram	1360-401	Page 548
Rubber dampers	30x30 / 40	Page 454
Spring vibration dampers	MSN 6	Page 454
System components		Page 448

Dimensions [mm]

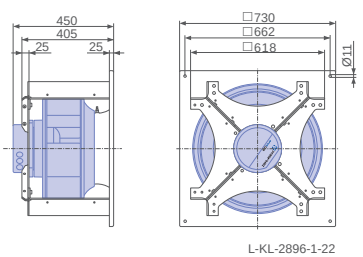
Free-running motor impeller RH
in installation position H/Vu/Vo



Plug fan ER in installation position H



Ventilation unit GR in installation position H

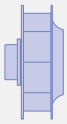
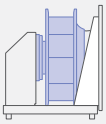
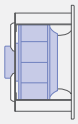
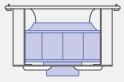


Performance data

Type	Characteristic curve	Speed n [min⁻¹]	Operating point	Current I [A]	Motor input power P_{sys} [W]	Suction side sound power level L_{WA5} [dB]	Maximum ambient temperature t_R [°C]
__56C-ZIK.GL.CR	I	1800	①	3.00	1900	88	40
		1800	②	8.20	5400	84	
		1800	③	5.20	3400	95	
	II	1650	④	2.40	1500	86	
		1650	⑤	6.40	4200	82	
		1650	⑥	4.00	2600	91	
	III	1500	⑦	1.85	1150	83	60
		1500	⑧	4.80	3100	79	
		1500	⑨	3.00	2000	87	
	IV	1200	⑩	1.15	620	77	
		1200	⑪	2.50	1600	74	
		1200	⑫	1.70	1050	81	
	V	900	⑬	0.70	300	69	
		900	⑭	1.25	720	66	
		900	⑮	0.92	480	73	

Current values determined at 400V

Fan ordering information

Design	RH*	ER**	GR**	GR**	GR**
Installation position	H/Vu/Vo	H	H	Vo	Vu
					
Type	**RH56C-ZIK.GL.CR**	**ER56C-ZIK.GL.CR**	**GR56C-ZIK.GL.CR**	**GR56C-ZIK.GL.CR**	**GR56C-ZIK.GL.CR**
Basic electronics					
Article no.	**114713**	**114734/A01**	**114725/H01**	**114725/O01**	**114725/U01**
Premium electronics					
Article no.	**114714**				
Weight [kg]	31.00	51.00	61.00	62.00	62.00

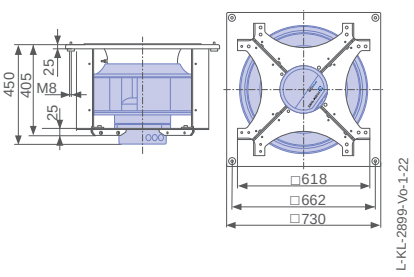
* Inlet ring not included

** Inlet ring integrated

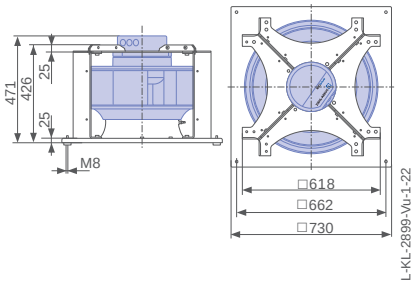
Control technology

Control module	Operating terminal	Expansion module
		
Page 464	Page 476	Page 473

Ventilation unit GR in installation position Vo



Ventilation unit GR in installation position Vu



C p r o - E C b l u e

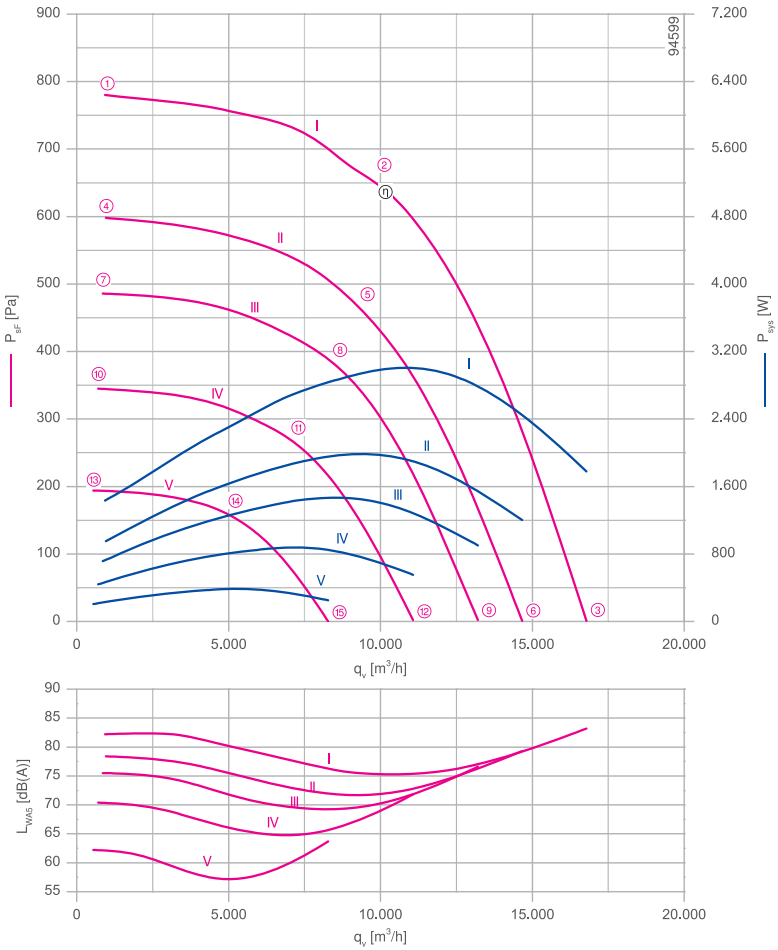
for three phase alternating current, 200-240 V

R H 6 3 C - Z I K

Description

Motor technology: EC
Rated voltage U: **3~200-240 V***
Rated frequency f: **50/60 Hz***
Motor input power P: **3.00 kW***
Rated current I: **9.00-7.60 A***
Rated speed n: **1200 min^{-1}***
Thermal class: **THCL155***
Min. permitted ambient temperature t_R: -20 °C
Max. permitted ambient temperature t_R at n_{max}: 40 °C
Electrical connection: integrated Controller
Number of blades : 7
Balancing quality: G 2.5
Protection class: IP54
Motor protection: Integrated active temperature management
Impeller : ZAmid, uncoated, Ultramarine blue
Conformity: ErP 2015, CE
ErP-data
Efficiency η_{statA}: 65.1 %
Efficiency: N_{actual} = 70.6 / N_{target} = 62**
EC controller integrated
*Rated data
**ErP 2015

Characteristic curve

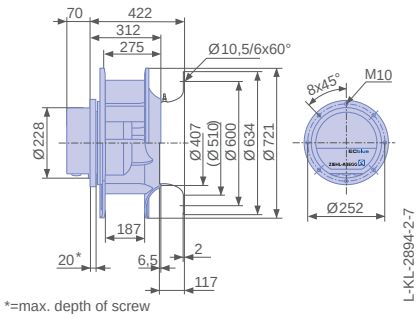


measured with inlet ring, without guard grille according to ISO 5801

Inlet ring	00401301	Page 450
Connection diagram	1360-401	Page 548
Rubber dampers	30x30 / 40	Page 454
Spring vibration dampers	MSN 6	Page 454
System components		Page 448

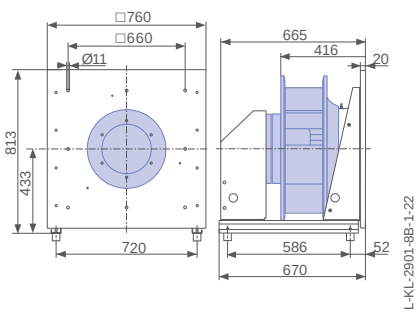
Dimensions [mm]

Free-running motor impeller RH
in installation position H/Vu/Vo

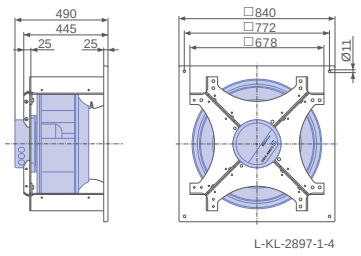


*=max. depth of screw

Plug fan ER in installation position H



Ventilation unit GR in installation position H

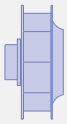
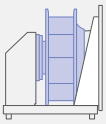
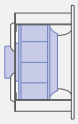
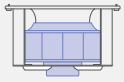


Performance data

Type	Characteristic curve	Speed n [min⁻¹]	Operating point	Current I [A]	Motor input power P_{sys} [W]	Suction side sound power level L_{WA5} [dB]	Maximum ambient temperature t_R [°C]
__63C-ZIK.GG.CR	I	1200	①	3.80	1450	82	40
		1200	②	7.80	3000	75	
		1200	③	4.60	1800	83	
	II	1050	④	2.50	960	78	60
		1050	⑤	5.20	2000	72	
		1050	⑥	3.20	1200	79	
	III	950	⑦	1.90	720	76	
		950	⑧	3.90	1450	69	
		950	⑨	2.40	900	77	
	IV	800	⑩	1.25	440	70	
		800	⑪	2.30	880	65	
		800	⑫	1.50	560	72	
	V	600	⑬	0.66	210	62	
		600	⑭	1.10	390	57	
		600	⑮	0.76	250	64	

Current values determined at 230V

Fan ordering information

Design	RH*	ER**	GR**	GR**	GR**
Installation position	H/Vu/Vo	H	H	Vo	Vu
					
Type	**RH63C-ZIK.GG.CR**	**ER63C-ZIK.GG.CR**	**GR63C-ZIK.GG.CR**	**GR63C-ZIK.GG.CR**	**GR63C-ZIK.GG.CR**
Basic electronics					
Article no.	**114633**	**114677/A01**	**114657/H01**	**114657/O01**	**114657/U01**
Premium electronics					
Article no.	**114634**				
Weight [kg]	31.00	61.00	68.00	69.00	69.00

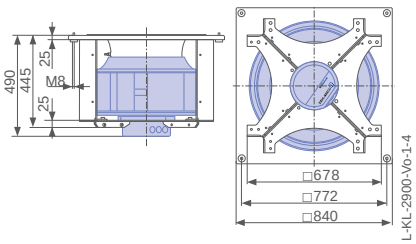
* Inlet ring not included

** Inlet ring integrated

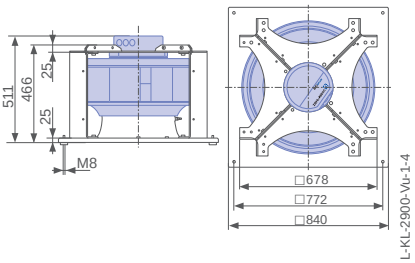
Control technology

Control module	Operating terminal	Expansion module
		
Page 464	Page 476	Page 473

Ventilation unit GR in installation position Vo



Ventilation unit GR in installation position Vu



C p r o - E C b l u e

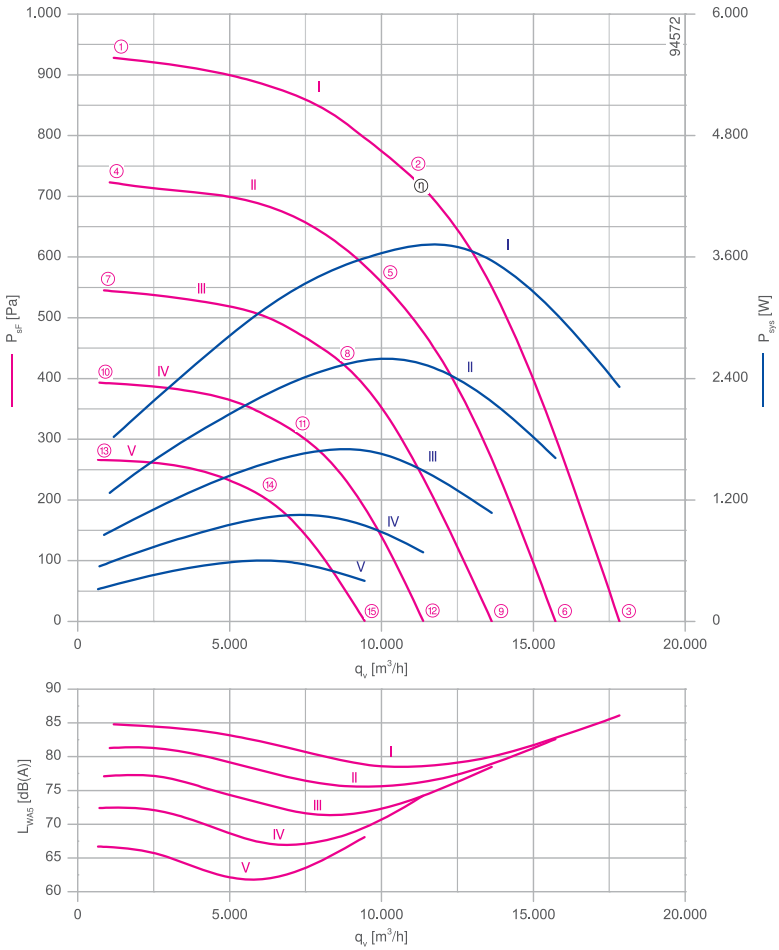
for three phase alternating current, 200-240 V

R H 6 3 C - Z I K

Description

Motor technology: EC
Rated voltage U: **3~200-240 V***
Rated frequency f: **50/60 Hz***
Motor input power P: **3.70 kW***
Rated current I: **12.00-10.00 A***
Rated speed n: **1300 min^{-1}***
Thermal class: **THCL155***
Min. permitted ambient temperature t_R: -20 °C
Max. permitted ambient temperature t_R at n_{max}: 45 °C
Electrical connection: integrated Controller
Number of blades : 7
Balancing quality: G 2.5
Protection class: IP54
Motor protection: Integrated active temperature management
Impeller : ZAmid, uncoated, Ultramarine blue
Conformity: ErP 2015, CE
ErP-data
Efficiency η_{statA}: 65.1 %
Efficiency: N_{actual} = 69.6 / N_{target} = 62**
EC controller integrated
*Rated data
**ErP 2015

Characteristic curve

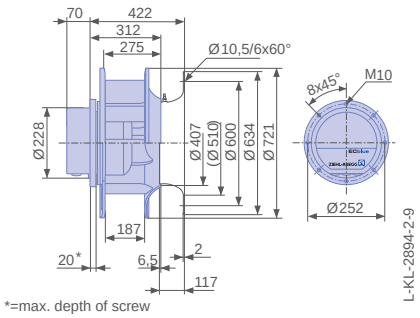


measured with inlet ring, without guard grille according to ISO 5801

Inlet ring	00401301	Page 450
Connection diagram	1360-401	Page 548
Rubber dampers	30x30 / 40	Page 454
Spring vibration dampers	MSN 6	Page 454
System components		Page 448

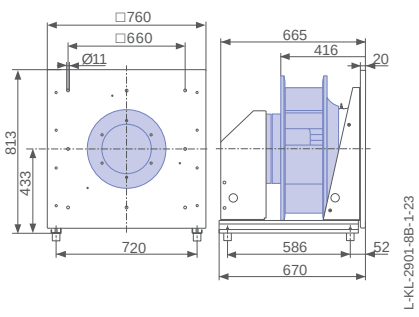
Dimensions [mm]

Free-running motor impeller RH
in installation position H/Vu/Vo

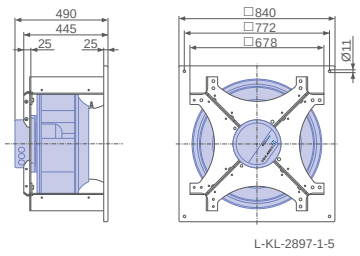


*=max. depth of screw

Plug fan ER in installation position H



Ventilation unit GR in installation position H

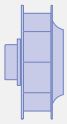
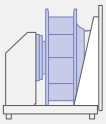
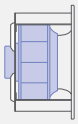
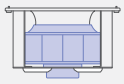


Performance data

Type	Characteristic curve	Speed n [min⁻¹]	Operating point	Current I [A]	Motor input power P_{sys} [W]	Suction side sound power level L_{WA5} [dB]	Maximum ambient temperature t_R [°C]
__63C-ZIK.GL.CR	I	1300	①	5.00	1800	85	45
		1300	②	10.00	3700	79	
		1300	③	6.40	2300	86	
	II	1150	④	3.50	1250	81	60
		1150	⑤	7.20	2600	76	
		1150	⑥	4.40	1600	83	
	III	1000	⑦	2.40	860	77	
		1000	⑧	4.60	1700	72	
		1000	⑨	2.90	1050	79	
	IV	850	⑩	1.55	540	72	
		850	⑪	2.90	1050	67	
		850	⑫	1.90	680	74	
	V	700	⑬	0.94	320	67	
		700	⑭	1.70	600	62	
		700	⑮	1.15	400	68	

Current values determined at 230V

Fan ordering information

Design	RH*	ER**	GR**	GR**	GR**
Installation position	H/Vu/Vo	H	H	Vo	Vu
					
Type	**RH63C-ZIK.GL.CR**	**ER63C-ZIK.GL.CR**	**GR63C-ZIK.GL.CR**	**GR63C-ZIK.GL.CR**	**GR63C-ZIK.GL.CR**
Basic electronics					
Article no.	**114637**	**114679/A01**	**114659/H01**	**114659/O01**	**114659/U01**
Premium electronics					
Article no.	**114638**				
Weight [kg]	36.00	65.00	72.00	73.00	73.00

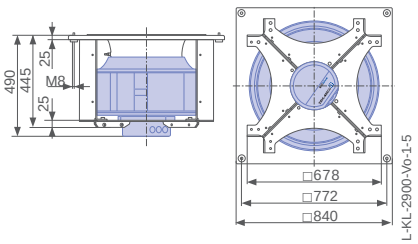
* Inlet ring not included

** Inlet ring integrated

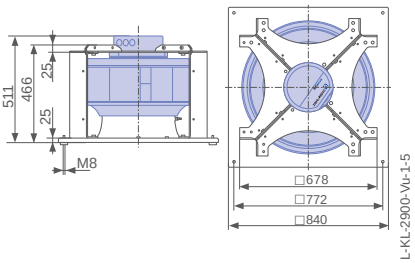
Control technology

Control module	Operating terminal	Expansion module
		
Page 464	Page 476	Page 473

Ventilation unit GR in installation position Vo



Ventilation unit GR in installation position Vu

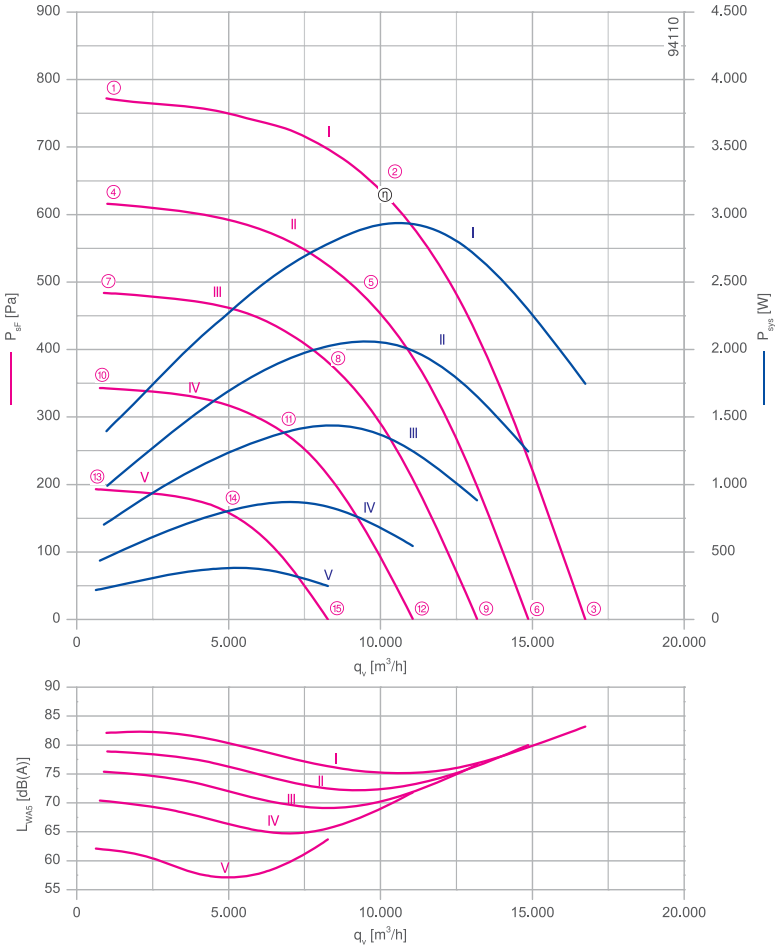


C p r o - E C b l u e

for three phase alternating current, 380-480 V

R H 6 3 C - Z I K

Characteristic curve



measured with inlet ring, without guard grille according to ISO 5801

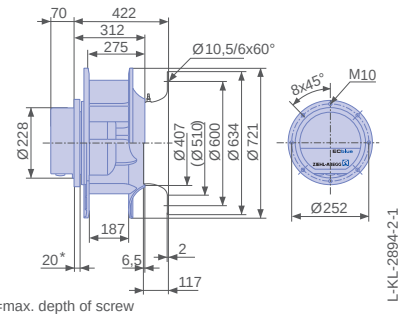
Description

Motor technology: EC
Rated voltage U: **3~380-480 V***
Rated frequency f: **50/60 Hz***
Motor input power P: **2.90 kW***
Rated current I: **4.80-3.80 A***
Rated speed n: **1200 min^{-1}***
Thermal class: **THCL155***
Min. permitted ambient temperature t_R: -20 °C
Max. permitted ambient temperature t_R at n_{max}: 40 °C
Electrical connection: integrated Controller
Number of blades : 7
Balancing quality: G 2.5
Protection class: IP54
Motor protection: Integrated active temperature management
Impeller : ZAmid, uncoated, Ultramarine blue
Conformity: ErP 2015, CE
ErP-data
Efficiency η_{statA}: 65.5 %
Efficiency: N_{actual} = 71.1 / N_{target} = 62**
EC controller integrated
*Rated data
**ErP 2015

Inlet ring	00401301	Page 450
Connection diagram	1360-401	Page 548
Rubber dampers	30x30 / 40	Page 454
Spring vibration dampers	MSN 6	Page 454
System components		Page 448

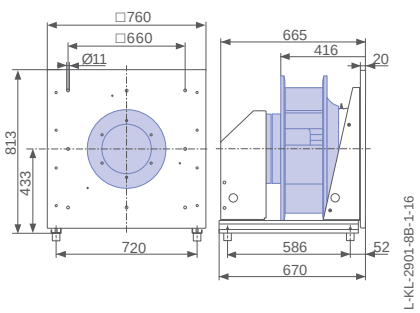
Dimensions [mm]

Free-running motor impeller RH
in installation position H/Vu/Vo

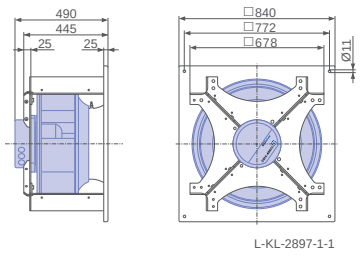


*=max. depth of screw

Plug fan ER in installation position H



Ventilation unit GR in installation position H

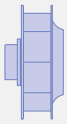
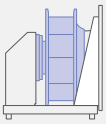
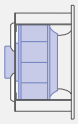
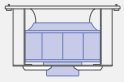


Performance data

Type	Characteristic curve	Speed n [min⁻¹]	Operating point	Current I [A]	Motor input power P_{sys} [W]	Suction side sound power level L_{WA5} [dB]	Maximum ambient temperature t_R [°C]
__63C-ZIK.GG.CR	I	1200	①	2.20	1400	82	40
		1200	②	4.40	2900	75	
		1200	③	2.70	1750	83	
	II	1070	④	1.55	980	79	60
		1070	⑤	3.20	2100	72	
		1070	⑥	1.95	1250	80	
	III	950	⑦	1.15	700	75	
		950	⑧	2.20	1450	69	
		950	⑨	1.40	880	77	
	IV	800	⑩	0.82	440	70	
		800	⑪	1.40	860	65	
		800	⑫	0.94	540	72	
	V	600	⑬	0.52	220	62	
		600	⑭	0.74	380	57	
		600	⑮	0.56	250	64	

Current values determined at 400V

Fan ordering information

Design	RH*	ER**	GR**	GR**	GR**
Installation position	H/Vu/Vo	H	H	Vo	Vu
					
Type	**RH63C-ZIK.GG.CR**	**ER63C-ZIK.GG.CR**	**GR63C-ZIK.GG.CR**	**GR63C-ZIK.GG.CR**	**GR63C-ZIK.GG.CR**
Basic electronics					
Article no.	**114635**	**114678/A01**	**114658/H01**	**114658/O01**	**114658/U01**
Premium electronics					
Article no.	**114636**				
Weight [kg]	31.00	61.00	68.00	69.00	69.00

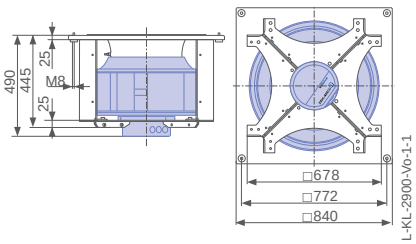
* Inlet ring not included

** Inlet ring integrated

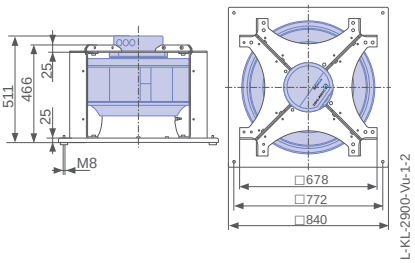
Control technology

Control module	Operating terminal	Expansion module
		
Page 464	Page 476	Page 473

Ventilation unit GR in installation position Vo



Ventilation unit GR in installation position Vu

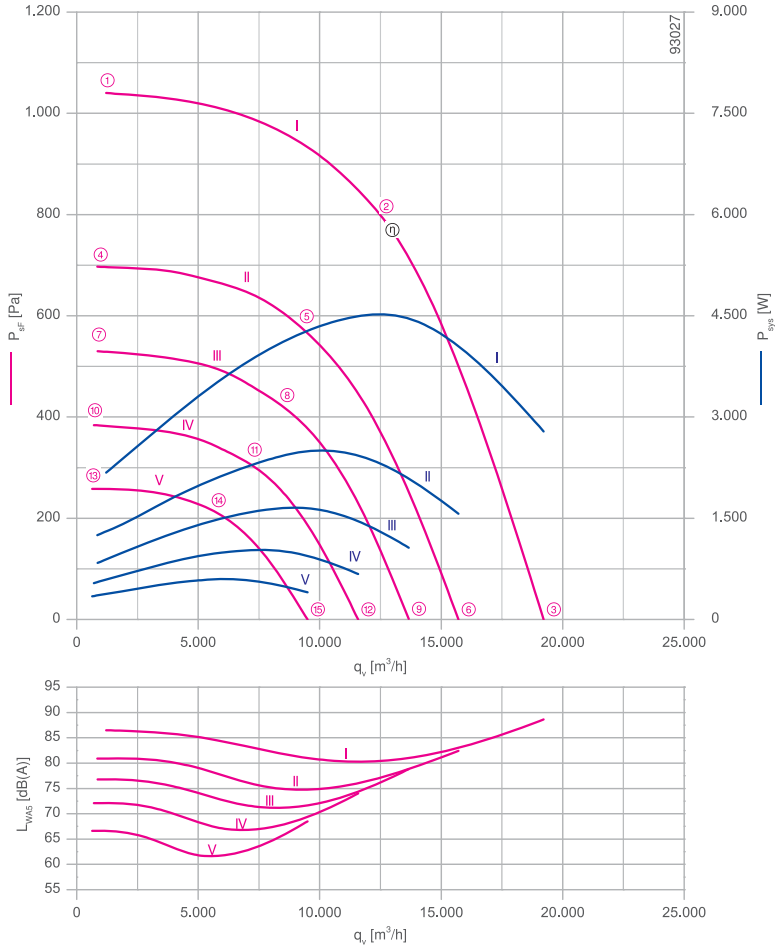


C p r o - E C b l u e

for three phase alternating current, 380-480 V

R H 6 3 C - Z I K

Characteristic curve



measured with inlet ring, without guard grille according to ISO 5801

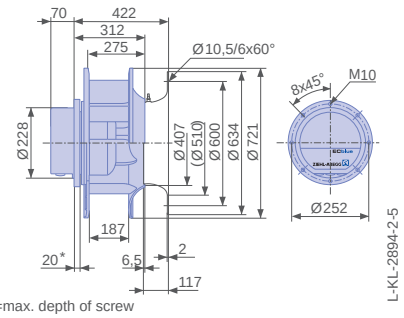
Description

Motor technology: EC
Rated voltage U: **3~380-480 V***
Rated frequency f: **50/60 Hz***
Motor input power P: **4.60 kW***
Rated current I: **7.20-5.80 A***
Rated speed n: **1400 min^{-1}***
Thermal class: **THCL155***
Min. permitted ambient temperature t_R: -20 °C
Max. permitted ambient temperature t_R at n_{max}: 40 °C
Electrical connection: integrated Controller
Number of blades : 7
Balancing quality: G 2.5
Protection class: IP54
Motor protection: Integrated active temperature management
Impeller : ZAmid, uncoated, Ultramarine blue
Conformity: ErP 2015, CE
ErP-data
Efficiency η_{statA}: 65.6 %
Efficiency: N_{actual} = 69.2 / N_{target} = 62**
EC controller integrated
*Rated data
**ErP 2015

Inlet ring	00401301	Page 450
Connection diagram	1360-401	Page 548
Rubber dampers	30x30 / 40	Page 454
Spring vibration dampers	MSN 6	Page 454
System components		Page 448

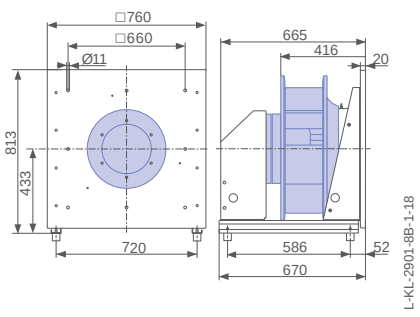
Dimensions [mm]

Free-running motor impeller RH
in installation position H/Vu/Vo

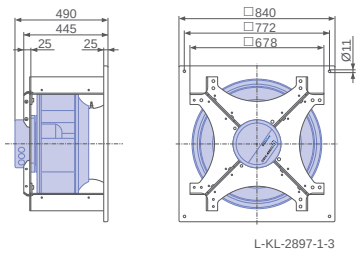


*=max. depth of screw

Plug fan ER in installation position H



Ventilation unit GR in installation position H

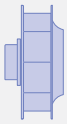
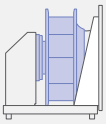
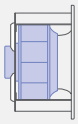
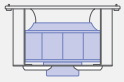


Performance data

Type	Characteristic curve	Speed n [min⁻¹]	Operating point	Current I [A]	Motor input power P_{sys} [W]	Suction side sound power level L_{WA5} [dB]	Maximum ambient temperature t_R [°C]
__63C-ZIK.GL.CR	I	1400	①	3.40	2200	87	40
		1400	②	6.80	4600	81	
		1400	③	4.20	2800	89	
	II	1150	④	2.00	1250	81	60
		1150	⑤	3.80	2500	75	
		1150	⑥	2.50	1550	82	
	III	1000	⑦	1.40	840	77	
		1000	⑧	2.60	1650	71	
		1000	⑨	1.75	1050	79	
	IV	850	⑩	1.05	540	72	
		850	⑪	1.70	1050	67	
		850	⑫	1.20	680	74	
	V	700	⑬	0.78	340	67	
		700	⑭	1.10	600	62	
		700	⑮	0.86	400	69	

Current values determined at 400V

Fan ordering information

Design	RH*	ER**	GR**	GR**	GR**
Installation position	H/Vu/Vo	H	H	Vo	Vu
					
Type	**RH63C-ZIK.GL.CR**	**ER63C-ZIK.GL.CR**	**GR63C-ZIK.GL.CR**	**GR63C-ZIK.GL.CR**	**GR63C-ZIK.GL.CR**
Basic electronics					
Article no.	**114717**	**114736/A01**	**114727/H01**	**114727/O01**	**114727/U01**
Premium electronics					
Article no.	**114718**				
Weight [kg]	36.00	65.00	72.00	73.00	73.00

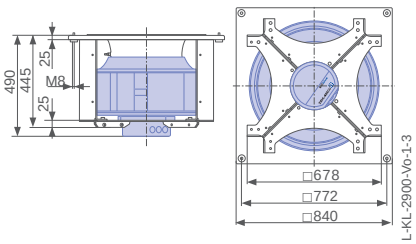
* Inlet ring not included

** Inlet ring integrated

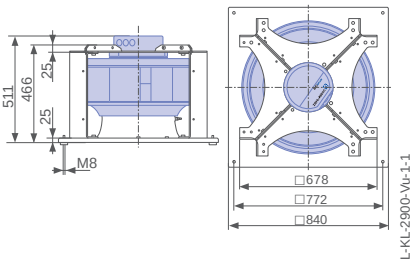
Control technology

Control module	Operating terminal	Expansion module
		
Page 464	Page 476	Page 473

Ventilation unit GR in installation position Vo



Ventilation unit GR in installation position Vu

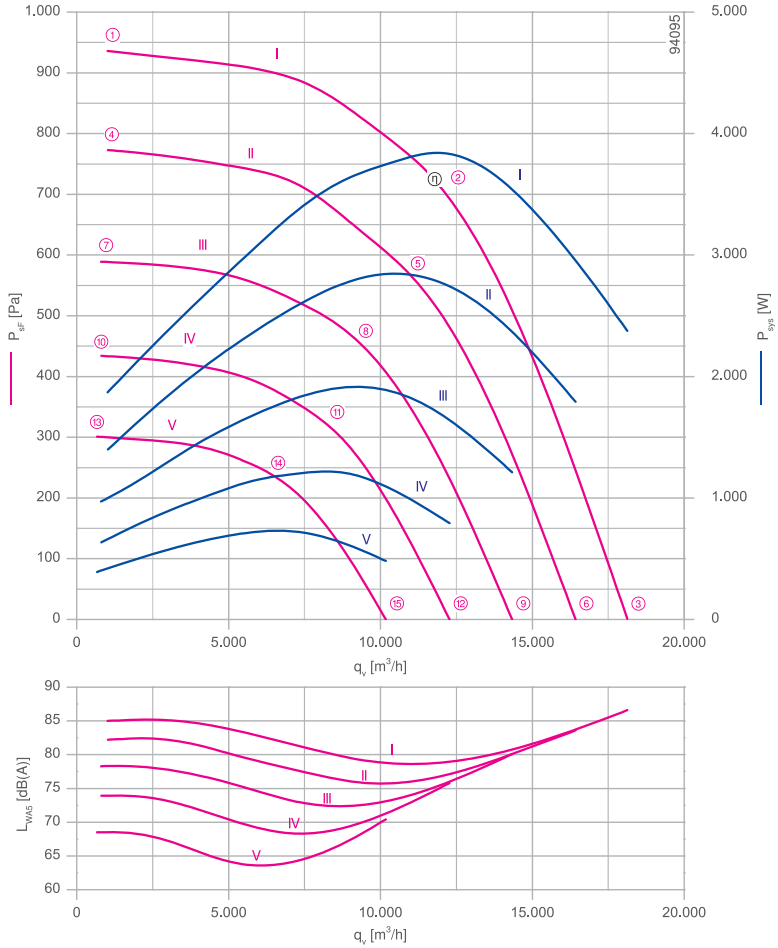


C p r o - E C b l u e

for three phase alternating current, 380-480 V

R H 6 3 C - Z I K

Characteristic curve



measured with inlet ring, without guard grille according to ISO 5801

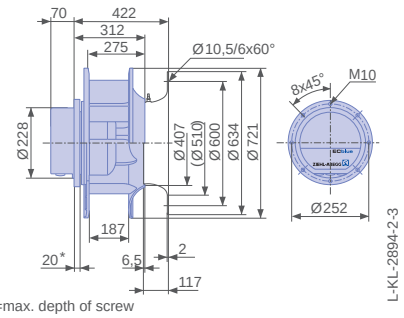
Description

Motor technology: EC
Rated voltage U: **3~380-480 V***
Rated frequency f: **50/60 Hz***
Motor input power P: **3.80 kW***
Rated current I: **6.20-5.00 A***
Rated speed n: **1320 min^{-1}***
Thermal class: **THCL155***
Min. permitted ambient temperature t_R: -20 °C
Max. permitted ambient temperature t_R at n_{max}: 50 °C
Electrical connection: integrated Controller
Number of blades : 7
Balancing quality: G 2.5
Protection class: IP54
Motor protection: Integrated active temperature management
Impeller : ZAmid, uncoated, Ultramarine blue
Conformity: ErP 2015, CE
ErP-data
Efficiency η_{statA}: 66.1 %
Efficiency: N_{actual} = 70.5 / N_{target} = 62**
EC controller integrated
*Rated data
**ErP 2015

Inlet ring	00401301	Page 450
Connection diagram	1360-401	Page 548
Rubber dampers	30x30 / 40	Page 454
Spring vibration dampers	MSN 6	Page 454
System components		Page 448

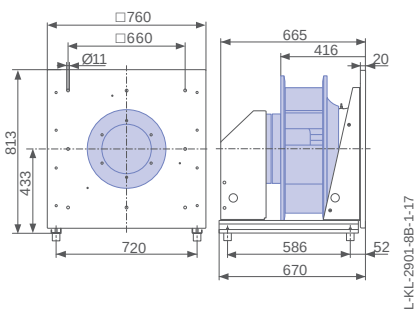
Dimensions [mm]

Free-running motor impeller RH
in installation position H/Vu/Vo

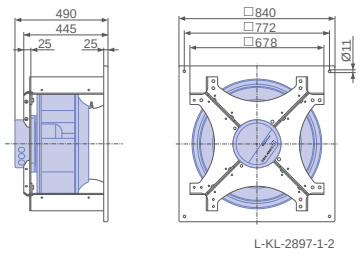


*=max. depth of screw

Plug fan ER in installation position H



Ventilation unit GR in installation position H

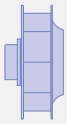
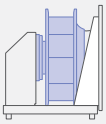
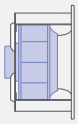
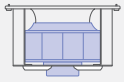


Performance data

Type	Characteristic curve	Speed n [min⁻¹]	Operating point	Current I [A]	Motor input power P_{sys} [W]	Suction side sound power level L_{WA5} [dB]	Maximum ambient temperature t_R [°C]
__63C-ZIK.GL.CR	I	1320	①	2.90	1850	85	50
		1320	②	5.80	3800	79	
		1320	③	3.60	2400	87	
	II	1200	④	2.20	1400	82	60
		1200	⑤	4.40	2800	76	
		1200	⑥	2.80	1800	84	
	III	1050	⑦	1.55	980	78	
		1050	⑧	2.90	1900	72	
		1050	⑨	1.90	1200	80	
	IV	900	⑩	1.10	640	74	
		900	⑪	1.95	1200	69	
		900	⑫	1.35	800	76	
	V	750	⑬	0.80	390	69	
		750	⑭	1.25	720	64	
		750	⑮	0.92	480	70	

Current values determined at 400V

Fan ordering information

Design	RH*	ER**	GR**	GR**	GR**
Installation position	H/Vu/Vo	H	H	Vo	Vu
					
Type	**RH63C-ZIK.GL.CR**	**ER63C-ZIK.GL.CR**	**GR63C-ZIK.GL.CR**	**GR63C-ZIK.GL.CR**	**GR63C-ZIK.GL.CR**
Basic electronics					
Article no.	**114639**	**114680/A01**	**114660/H01**	**114660/O01**	**114660/U01**
Premium electronics					
Article no.	**114640**				
Weight [kg]	36.00	64.60	72.00	73.00	73.00

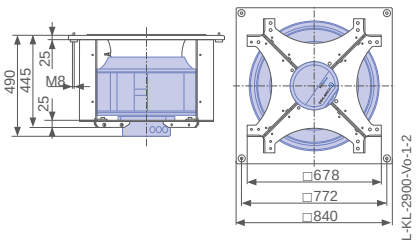
* Inlet ring not included

** Inlet ring integrated

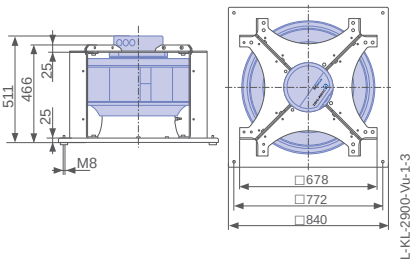
Control technology

Control module	Operating terminal	Expansion module
		
Page 464	Page 476	Page 473

Ventilation unit GR in installation position Vo



Ventilation unit GR in installation position Vu



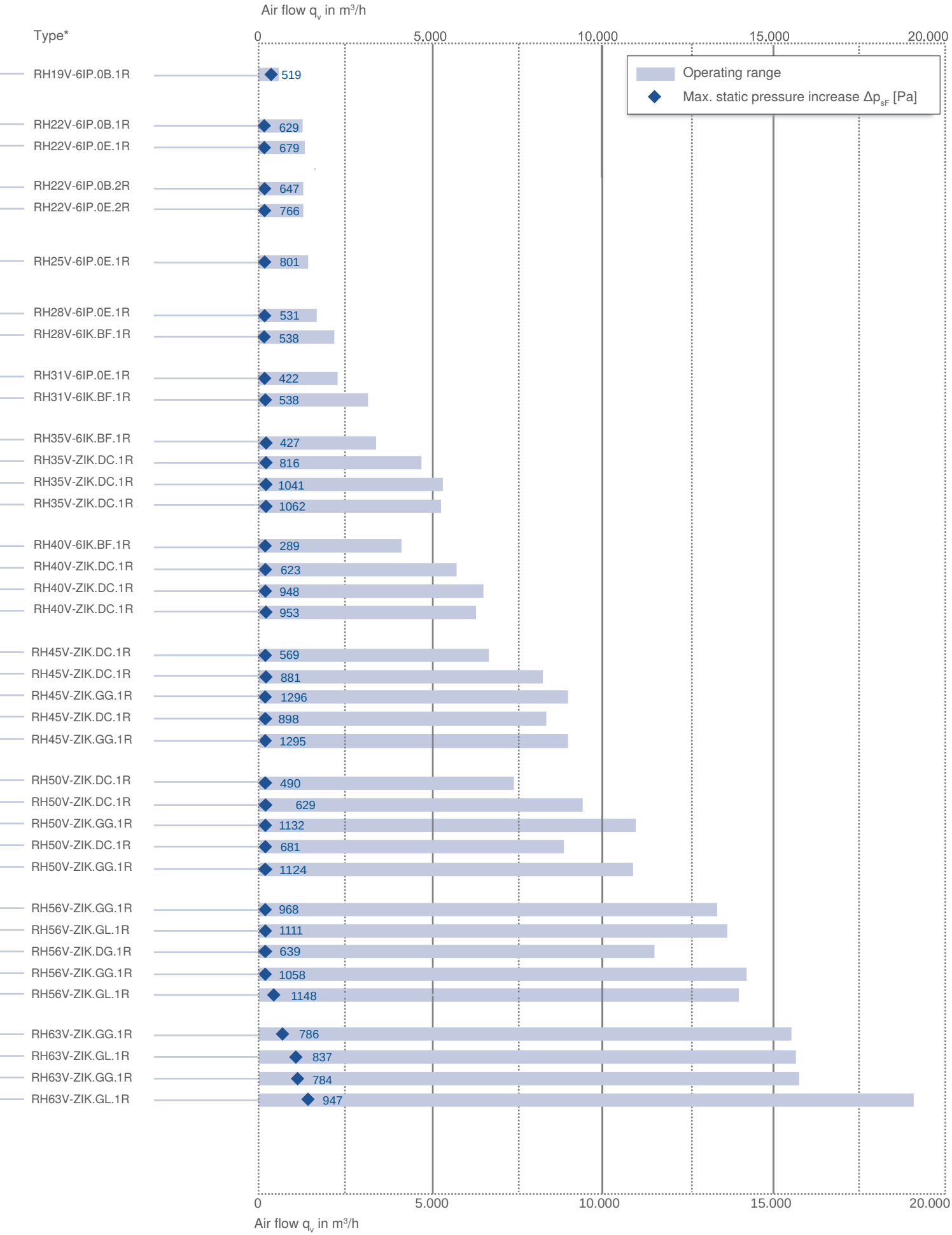
Centrifugal Fans Vpro-ECblue

EC technology

Product overview

Size	Voltage	Type*	Impeller position	ErP	Page
190	1~ 200-277 V	RH19V-6IP.0B.1R	P	**	150
220	1~ 200-277 V	RH22V-6IP.0B.1R	P	2015	152
		RH22V-6IP.0E.1R	P	2015	154
225	1~ 200-277 V	RH22V-6IP.0B.2R	P	2015	156
		RH22V-6IP.0E.2R	P	2015	158
250	1~ 200-277 V	RH25V-6IP.0E.1R	P	2015	160
280	1~ 200-277 V	RH28V-6IP.0E.1R	P	2015	162
		RH28V-6IK.BF.1R	K	2015	164
315	1~ 200-277 V	RH31V-6IP.0E.1R	P	-	166
		RH31V-6IK.BF.1R	K	2015	168
355	1~ 200-277 V	RH35V-6IK.BF.1R	K	2015	170
		RH35V-ZIK.DC.1R	K	2015	172
	3~ 200-240 V	RH35V-ZIK.DC.1R	K	2015	174
	3~ 380-480 V	RH35V-ZIK.DC.1R	K	2015	176
400	1~ 200-277 V	RH40V-6IK.BF.1R	K	2015	178
		RH40V-ZIK.DC.1R	K	2015	180
	3~ 200-240 V	RH40V-ZIK.DC.1R	K	2015	182
	3~ 380-480 V	RH40V-ZIK.DC.1R	K	2015	184
450	1~ 200-277 V	RH45V-ZIK.DC.1R	K	2015	186
	3~ 200-240 V	RH45V-ZIK.DC.1R	K	2015	188
		RH45V-ZIK.GG.1R	K	2015	190
	3~ 380-480 V	RH45V-ZIK.DC.1R	K	2015	192
		RH45V-ZIK.GG.1R	K	2015	194
500	1~ 200-277 V	RH50V-ZIK.DC.1R	K	2015	196
	3~ 200-240 V	RH50V-ZIK.DC.1R	K	2015	198
		RH50V-ZIK.GG.1R	K	2015	200
	3~ 380-480 V	RH50V-ZIK.DC.1R	K	2015	202
		RH50V-ZIK.GG.1R	K	2015	204
560	3~ 200-240 V	RH56V-ZIK.GG.1R	K	2015	206
		RH56V-ZIK.GL.1R	K	2015	208
	3~ 380-480 V	RH56V-ZIK.DG.1R	K	2015	210
		RH56V-ZIK.GG.1R	K	2015	212
		RH56V-ZIK.GL.1R	K	2015	214
630	3~ 200-240 V	RH63V-ZIK.GG.1R	K	2015	216
		RH63V-ZIK.GL.1R	K	2015	218
	3~ 380-480 V	RH63V-ZIK.GG.1R	K	2015	220
		RH63V-ZIK.GL.1R	K	2015	222

* Available in version GR
** Not subject to ErP regulation (P_{sys} < 125 W)


Air flow q_v in m³/h
Type*
0
5.000
10.000
15.000
20.000
Operating range
Max. static pressure increase Δp_{sF} [Pa]
RH19V-6IP.0B.1R 519
RH22V-6IP.0B.1R 629
RH22V-6IP.0E.1R 679
RH22V-6IP.0B.2R 647
RH22V-6IP.0E.2R 766
RH25V-6IP.0E.1R 801
RH28V-6IP.0E.1R 531
RH28V-6IK.BF.1R 538
RH31V-6IP.0E.1R 422
RH31V-6IK.BF.1R 538
RH35V-6IK.BF.1R 427
RH35V-ZIK.DC.1R 816
RH35V-ZIK.DC.1R 1041
RH35V-ZIK.DC.1R 1062
RH40V-6IK.BF.1R 289
RH40V-ZIK.DC.1R 623
RH40V-ZIK.DC.1R 948
RH40V-ZIK.DC.1R 953
RH45V-ZIK.DC.1R 569
RH45V-ZIK.DC.1R 881
RH45V-ZIK.GG.1R 1296
RH45V-ZIK.DC.1R 898
RH45V-ZIK.GG.1R 1295
RH50V-ZIK.DC.1R 490
RH50V-ZIK.DC.1R 629
RH50V-ZIK.GG.1R 1132
RH50V-ZIK.DC.1R 681
RH50V-ZIK.GG.1R 1124
RH56V-ZIK.GG.1R 968
RH56V-ZIK.GL.1R 1111
RH56V-ZIK.DG.1R 639
RH56V-ZIK.GG.1R 1058
RH56V-ZIK.GL.1R 1148
RH63V-ZIK.GG.1R 786
RH63V-ZIK.GL.1R 837
RH63V-ZIK.GG.1R 784
RH63V-ZIK.GL.1R 947
0
5.000
10.000
15.000
20.000
Air flow q_v in m³/h

Vpro-EC blue

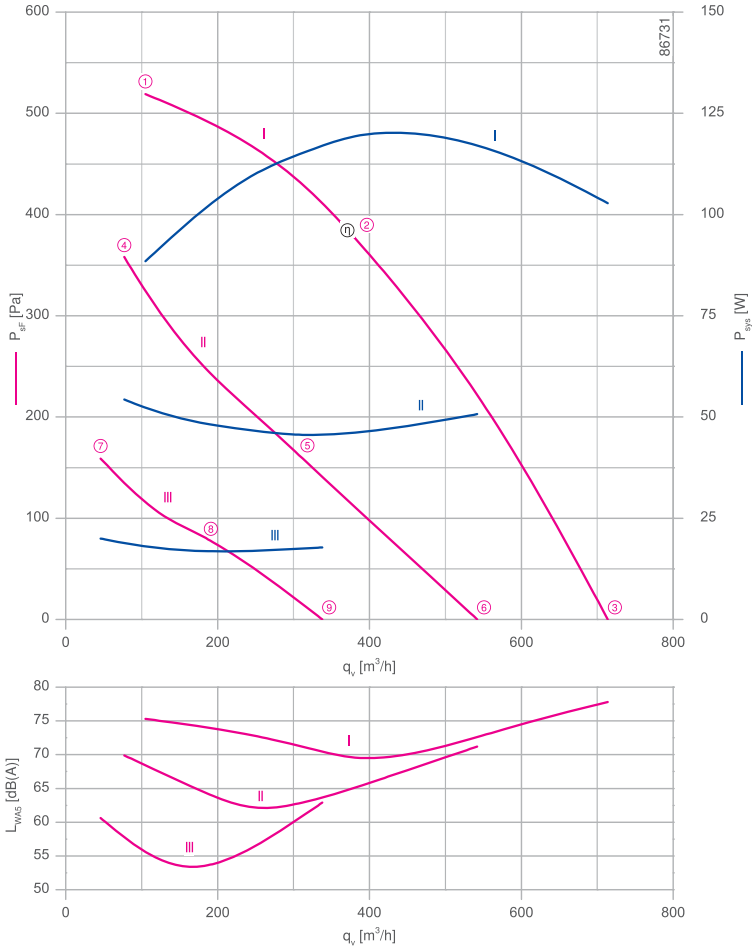
for single phase alternating current, 200-277 V

RH19V-6IP

Description

Motor technology: EC
Rated voltage U: **1~200-277 V***
Rated frequency f: **50/60 Hz***
Motor input power P: **0.12 kW***
Rated current I: **0.94-0.68 A***
Rated speed n: **3490 min^{-1}***
Thermal class: **THCL155***
Min. permitted ambient temperature t_R: - 5 °C
Max. permitted ambient temperature t_R at n_{max}: 60 °C
Electrical connection: Integrated controller with attached cable
Number of blades : 6
Balancing quality: G 6.3
Protection class: IP44
Motor protection: Integrated active temperature management
Impeller : High Performance Composite Material, uncoated, black
Conformity: CE
ErP-data
Not subject to ErP regulations (P_1< 125 W)
*Rated data

Characteristic curve

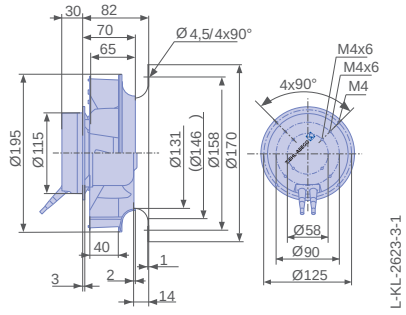


measured with inlet ring, without guard grille according to ISO 5801

Inlet ring	00407897	Page 450
Connection diagram	KT00036A	Page 547
System components		Page 448

Dimensions [mm]

Free-running motor impeller RH
in installation position H/Vu/Vo



Performance data

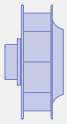
Type	Characteristic curve	Speed %	Operating point	Current I [A]	Motor input power P_{sys} [W]	Suction side sound power level L_{WA5} [dB]
RH19V-6IP.0B.1R	I	100	①	0.64	90	75
			②	0.82	120	70
			③	0.72	100	78
	II	60	④	0.42	55	70
			⑤	0.42	55	70
			⑥	0.38	50	71
	III	40	⑦	0.17	20	61
			⑧	0.17	20	61
			⑨	0.16	18	63

Current values determined at 230V

Fan ordering information

Design RH*

Installation position H/Vu/Vo



Type **RH19V-6IP.0B.1R**
Basic electronics
Article no. **113246**

Weight [kg] 2.00
* Inlet ring not included

Control technology

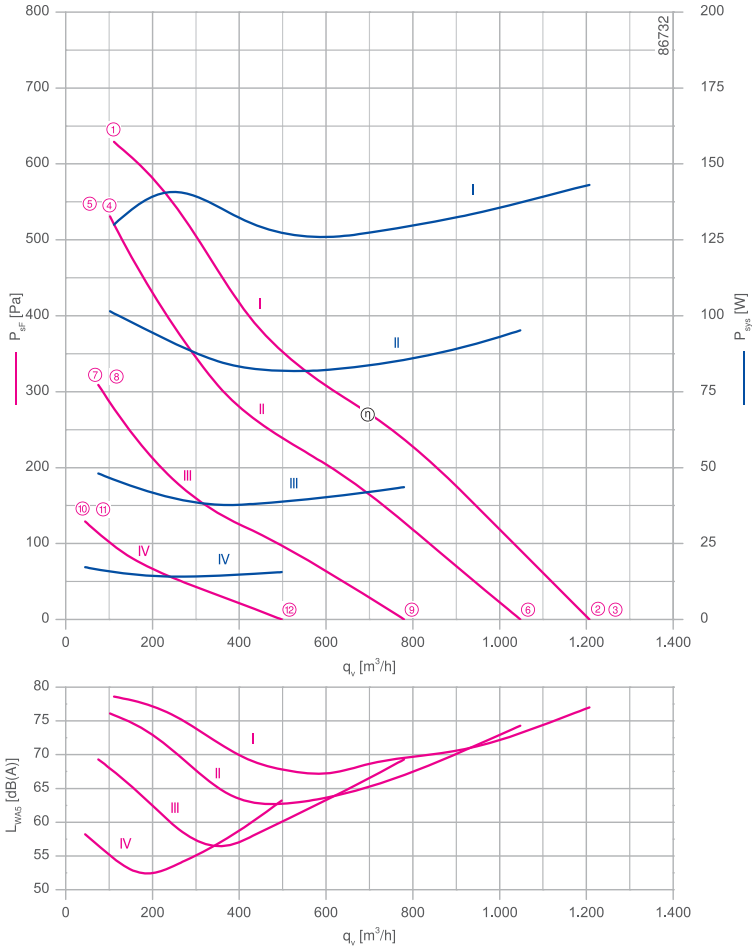
Control module	Operating terminal	Expansion module
		
Page 464	Page 476	Page 473

Vpro-EC blue

for single phase alternating current, 200-277 V

RH22V-6IP

Characteristic curve



measured with inlet ring, without guard grille according to ISO 5801

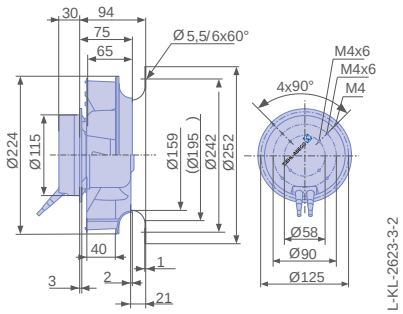
Description

Motor technology: EC
Rated voltage U: **1~200-277 V***
Rated frequency f: **50/60 Hz***
Motor input power P: **0.14 kW***
Rated current I: **1.10-0.78 A***
Rated speed n: **3240 min^{-1}***
Thermal class: **THCL155***
Min. permitted ambient temperature t_R: - 5 °C
Max. permitted ambient temperature t_R at n_{max}: 60 °C
Electrical connection: Integrated controller with attached cable
Number of blades : 6
Balancing quality: G 6.3
Protection class: IP44
Motor protection: Integrated active temperature management
Impeller : High Performance Composite Material, uncoated, black
Conformity: ErP 2015, CE
ErP-data
Efficiency η_{statA}: 48.8 %
Efficiency: N_{actual} = 68.7 / N_{target} = 62**
EC controller integrated
*Rated data
**ErP 2015

Inlet ring	00407898	Page 450
Connection diagram	KT00036A	Page 547
System components		Page 448

Dimensions [mm]

Free-running motor impeller RH
in installation position H/Vu/Vo



Performance data

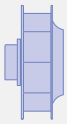
Type	Characteristic curve	Speed %	Operating point	Current I [A]	Motor input power P_{sys} [W]	Suction side sound power level L_{WA5} [dB]
RH22V-6IP.0B.1R	I	100	①	0.86	130	79
			②	0.94	140	77
			③	0.94	140	77
	II	80	④	0.66	100	76
			⑤	0.66	100	76
			⑥	0.62	95	74
	III	60	⑦	0.35	48	69
			⑧	0.35	48	69
			⑨	0.32	44	69
	IV	40	⑩	0.17	17	58
			⑪	0.17	17	58
			⑫	0.16	16	63

Current values determined at 230V

Fan ordering information

Design RH*

Installation position H/Vu/Vo



Type **RH22V-6IP.0B.1R**
Basic electronics
Article no. **113247**

Weight [kg] 2.10
* Inlet ring not included

Control technology

Control module

Page 464

Operating terminal

Page 476

Expansion module

Page 473

Vpro-EC blue

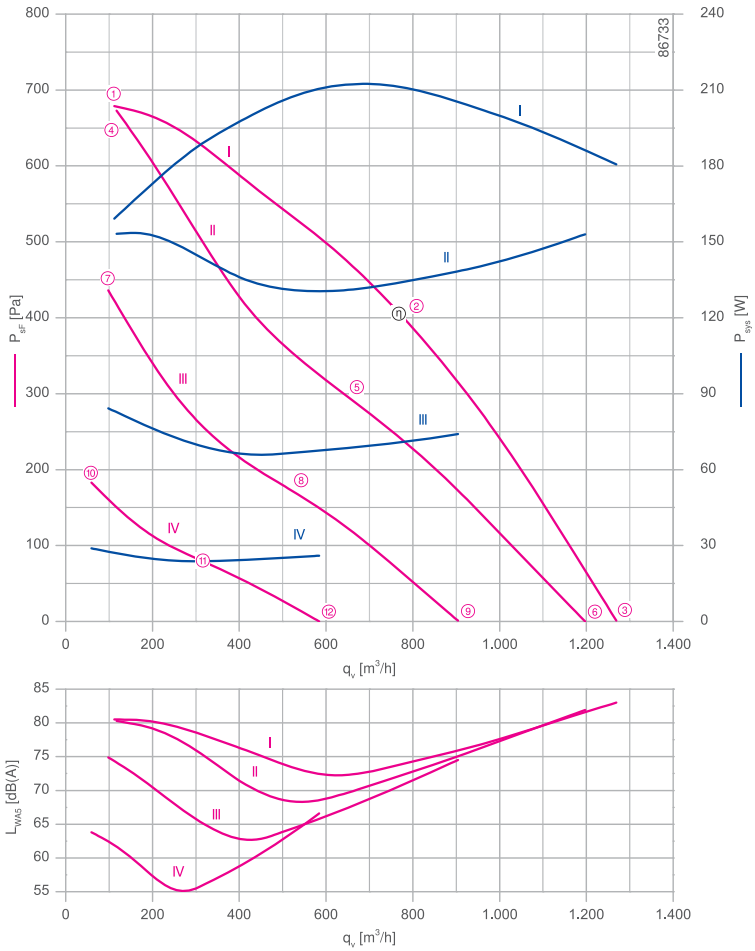
for single phase alternating current, 200-277 V

RH22V-6IP

Description

Motor technology: EC
Rated voltage U: **1~200-277 V***
Rated frequency f: **50/60 Hz***
Motor input power P: **0.21 kW***
Rated current I: **1.85-1.35 A***
Rated speed n: **3380 min^{-1}***
Thermal class: **THCL155***
Min. permitted ambient temperature t_R: - 5 °C
Max. permitted ambient temperature t_R at n_{max}: 60 °C
Electrical connection: Integrated controller with attached cable
Number of blades : 6
Balancing quality: G 6.3
Protection class: IP44
Motor protection: Integrated active temperature management
Impeller : High Performance Composite Material, uncoated, black
Conformity: ErP 2015, CE
ErP-data
Efficiency η_{statA}: 47.7 %
Efficiency: N_{actual} = 65.3 / N_{target} = 62**
EC controller integrated
*Rated data
**ErP 2015

Characteristic curve

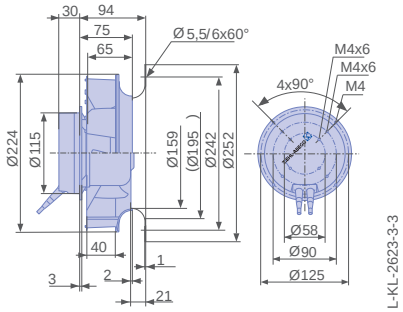


measured with inlet ring, without guard grille according to ISO 5801

Inlet ring	00407898	Page 450
Connection diagram	KT00036A	Page 547
System components		Page 448

Dimensions [mm]

Free-running motor impeller RH
in installation position H/Vu/Vo



Performance data

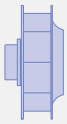
Type	Characteristic curve	Speed %	Operating point	Current I [A]	Motor input power P_{sys} [W]	Suction side sound power level L_{WA5} [dB]
RH22V-6IP.0E.1R	I	100	①	1.25	160	81
			②	1.60	210	72
			③	1.35	180	83
	II	80	④	1.25	150	80
			⑤	1.20	160	80
			⑥	1.15	150	82
	III	60	⑦	0.70	85	75
			⑧	0.70	85	75
			⑨	0.64	75	75
	IV	40	⑩	0.26	28	64
			⑪	0.26	28	64
			⑫	0.25	26	67

Current values determined at 230V

Fan ordering information

Design RH*

Installation position H/Vu/Vo



Type **RH22V-6IP.0E.1R**

Basic electronics

Article no. **113248**

Weight [kg] 2.60

* Inlet ring not included

Control technology

Control module

Page 464

Operating terminal

Page 476

Expansion module

Page 473

Vpro-EC blue

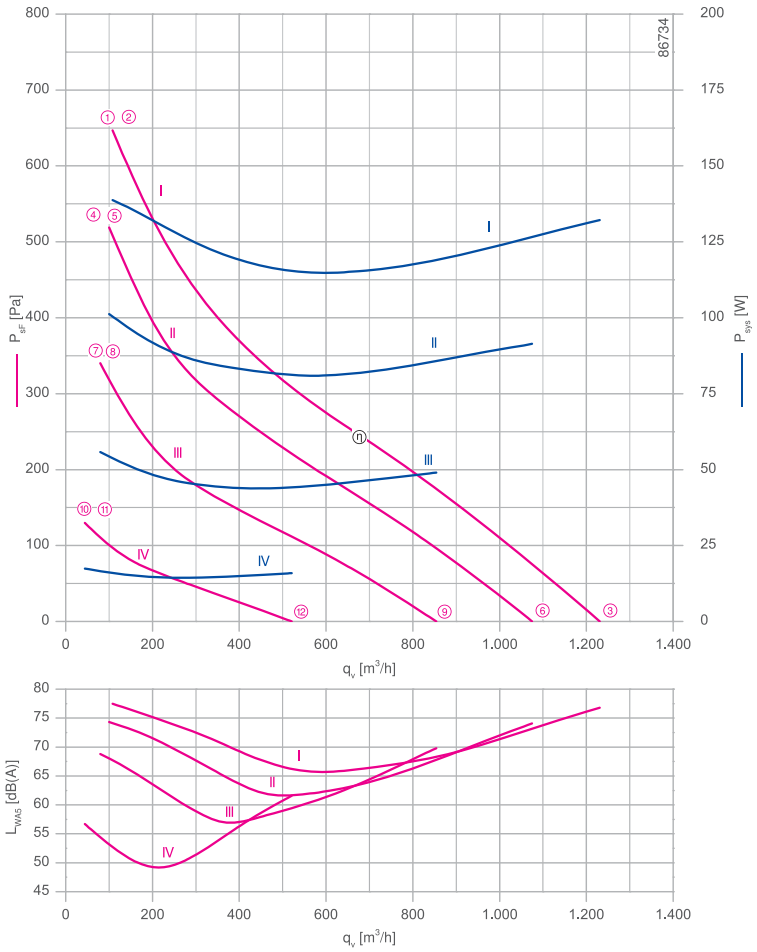
for single phase alternating current, 200-277 V

R H 2 2 V - 6 I P

Description

Motor technology: EC
Rated voltage U: **1~200-277 V***
Rated frequency f: **50/60 Hz***
Motor input power P: **0.14 kW***
Rated current I: **1.05-0.77 A***
Rated speed n: **3280 min^{-1}***
Thermal class: **THCL155***
Min. permitted ambient temperature t_R: - 5 °C
Max. permitted ambient temperature t_R at n_{max}: 60 °C
Electrical connection: Integrated controller with attached cable
Number of blades : 6
Balancing quality: G 6.3
Protection class: IP44
Motor protection: Integrated active temperature management
Impeller : High Performance Composite Material, uncoated, black
Conformity: CE
ErP-data
Not subject to ErP regulations (P_1< 125 W)
*Rated data

Characteristic curve

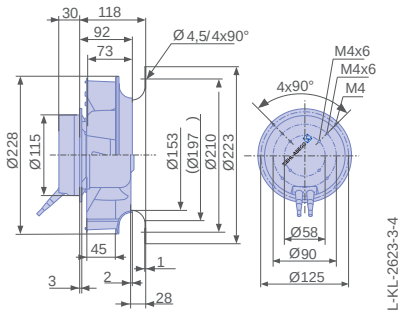


measured with inlet ring, without guard grille according to ISO 5801

Inlet ring	00407899	Page 450
Connection diagram	KT00036A	Page 547
System components		Page 448

Dimensions [mm]

Free-running motor impeller RH
in installation position H/Vu/Vo



Performance data

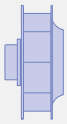
Type	Characteristic curve	Speed %	Operating point	Current I [A]	Motor input power P_{sys} [W]	Suction side sound power level L_{WA5} [dB]
RH22V-6IP.0B.2R	I	100	①	0.94	140	78
			②	0.94	140	78
			③	0.88	130	77
	II	80	④	0.70	100	74
			⑤	0.70	100	74
			⑥	0.62	90	74
	III	60	⑦	0.40	55	69
			⑧	0.40	55	69
			⑨	0.36	50	70
	IV	40	⑩	0.19	17	57
			⑪	0.19	17	57
			⑫	0.18	16	62

Current values determined at 230V

Fan ordering information

Design RH*

Installation position H/Vu/Vo



Type **RH22V-6IP.0B.2R**

Basic electronics

Article no. **113249**

Weight [kg] 2.20

* Inlet ring not included

Control technology

Control module

Page 464

Operating terminal

Page 476

Expansion module

Page 473

Vpro-EC blue

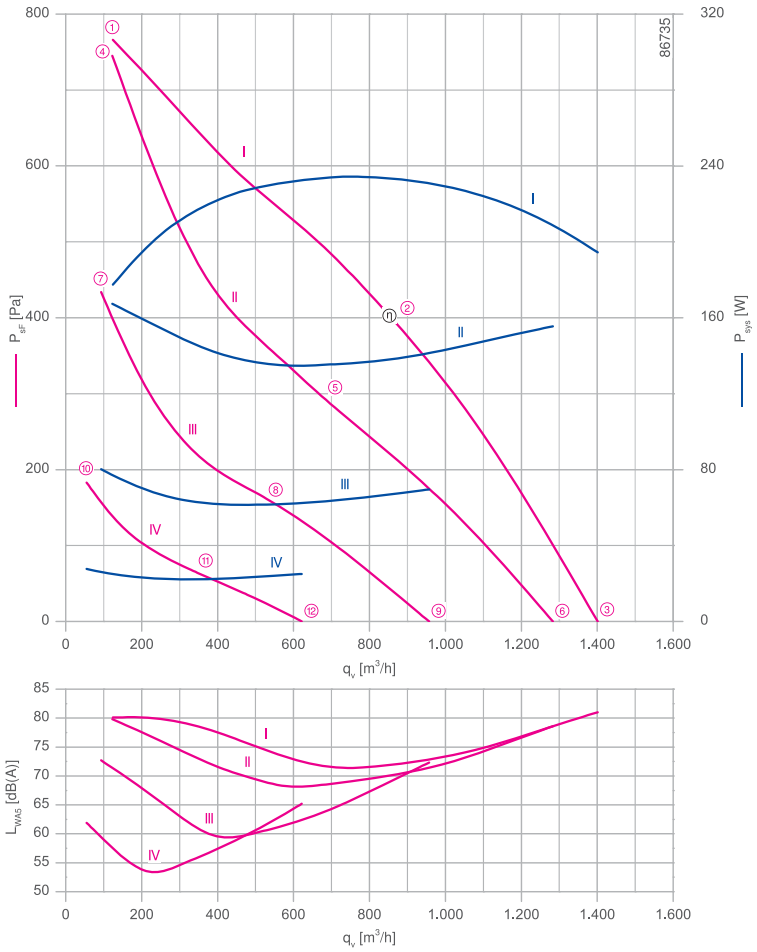
for single phase alternating current, 200-277 V

RH22V-6IP

Description

Motor technology: EC
Rated voltage U: **1~200-277 V***
Rated frequency f: **50/60 Hz***
Motor input power P: **0.23 kW***
Rated current I: **1.70-1.25 A***
Rated speed n: **3220 min^{-1}***
Thermal class: **THCL155***
Min. permitted ambient temperature t_R: - 5 °C
Max. permitted ambient temperature t_R at n_{max}: 60 °C
Electrical connection: Integrated controller with attached cable
Number of blades : 6
Balancing quality: G 6.3
Protection class: IP44
Motor protection: Integrated active temperature management
Impeller : High Performance Composite Material, uncoated, black
Conformity: ErP 2015, CE
ErP-data
Efficiency η_{statA}: 47.5 %
Efficiency: N_{actual} = 64.6 / N_{target} = 62**
EC controller integrated
*Rated data
**ErP 2015

Characteristic curve

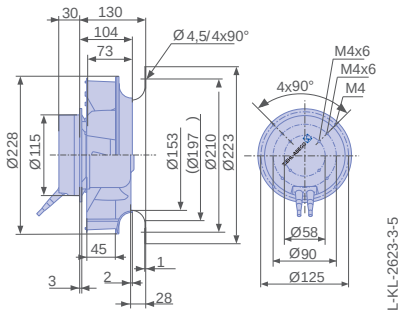


measured with inlet ring, without guard grille according to ISO 5801

Inlet ring	00407899	Page 450
Connection diagram	KT00036A	Page 547
System components		Page 448

Dimensions [mm]

Free-running motor impeller RH
in installation position H/Vu/Vo



Performance data

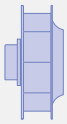
Type	Characteristic curve	Speed %	Operating point	Current I [A]	Motor input power P_{sys} [W]	Suction side sound power level L_{WA5} [dB]
RH22V-6IP.0E.2R	I	100	①	1.15	180	80
			②	1.50	230	72
			③	1.25	190	81
	II	80	④	1.10	170	80
			⑤	1.10	170	80
			⑥	1.00	160	79
	III	60	⑦	0.58	80	73
			⑧	0.58	80	73
			⑨	0.52	70	72
	IV	40	⑩	0.23	28	62
			⑪	0.23	28	62
			⑫	0.21	26	65

Current values determined at 230V

Fan ordering information

Design RH*

Installation position H/Vu/Vo



Type **RH22V-6IP.0E.2R**

Basic electronics

Article no. **113250**

Weight [kg] 2.70

* Inlet ring not included

Control technology

Control module

Page 464

Operating terminal

Page 476

Expansion module

Page 473

Vpro-EC blue

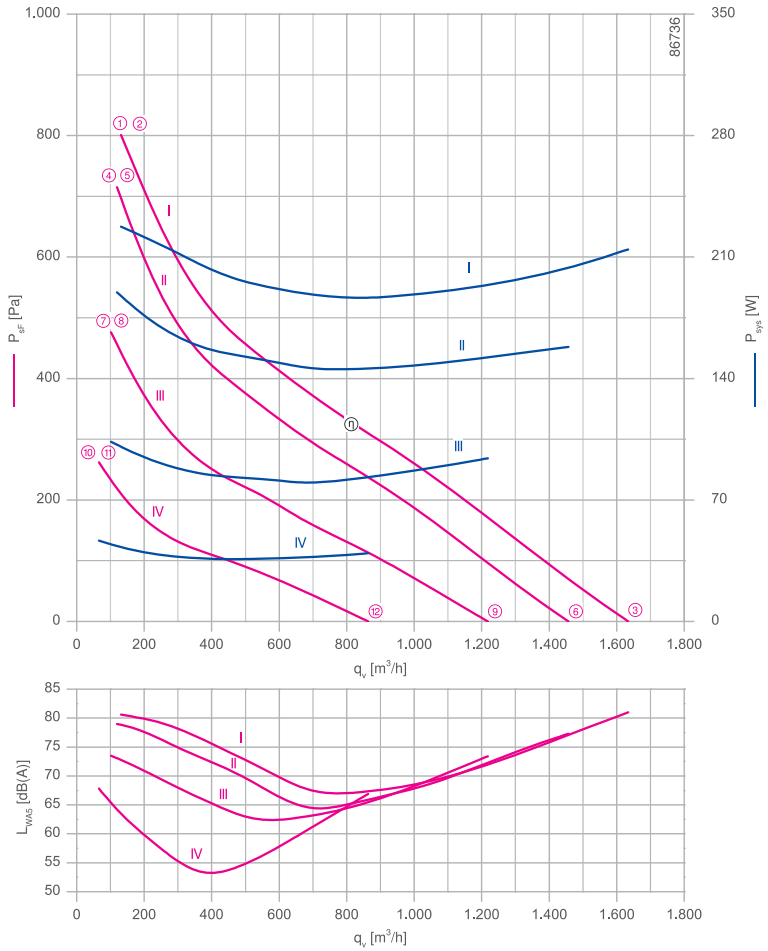
for single phase alternating current, 200-277 V

RH25V-6IP

Description

Motor technology: EC
Rated voltage U: **1~200-277 V***
Rated frequency f: **50/60 Hz***
Motor input power P: **0.23 kW***
Rated current I: **1.65-1.20 A***
Rated speed n: **3290 min^{-1}***
Thermal class: **THCL155***
Min. permitted ambient temperature t_R: - 5 °C
Max. permitted ambient temperature t_R at n_{max}: 60 °C
Electrical connection: Integrated controller with attached cable
Number of blades : 6
Balancing quality: G 6.3
Protection class: IP44
Motor protection: Integrated active temperature management
Impeller : High Performance Composite Material, uncoated, black
Conformity: ErP 2015, CE
ErP-data
Efficiency η_{statA}: 46.5 %
Efficiency: N_{actual} = 64.7 / N_{target} = 62**
EC controller integrated
*Rated data
**ErP 2015

Characteristic curve

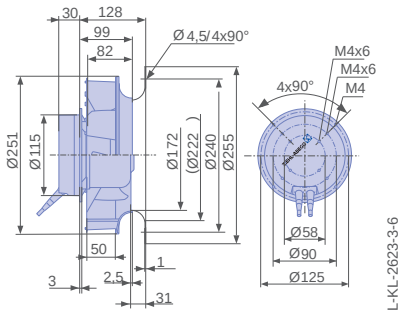


measured with inlet ring, without guard grille according to ISO 5801

Inlet ring	00407900	Page 450
Connection diagram	KT00036A	Page 547
System components		Page 448

Dimensions [mm]

Free-running motor impeller RH
in installation position H/Vu/Vo



Performance data

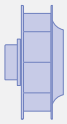
Type	Characteristic curve	Speed %	Operating point	Current I [A]	Motor input power P_{sys} [W]	Suction side sound power level L_{WA5} [dB]
RH25V-6IP.0E.1R	I	100	①	1.45	230	81
			②	1.45	230	81
			③	1.35	210	81
	II	80	④	1.20	190	79
			⑤	1.20	190	79
			⑥	1.05	160	77
	III	60	⑦	0.70	100	74
			⑧	0.70	100	74
			⑨	0.64	95	73
	IV	40	⑩	0.34	46	68
			⑪	0.34	46	68
			⑫	0.30	40	67

Current values determined at 230V

Fan ordering information

Design RH*

Installation position H/Vu/Vo



Type **RH25V-6IP.0E.1R**

Basic electronics

Article no. **113251**

Weight [kg] 2.80

* Inlet ring not included

Control technology

Control module

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Operating terminal

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Expansion module

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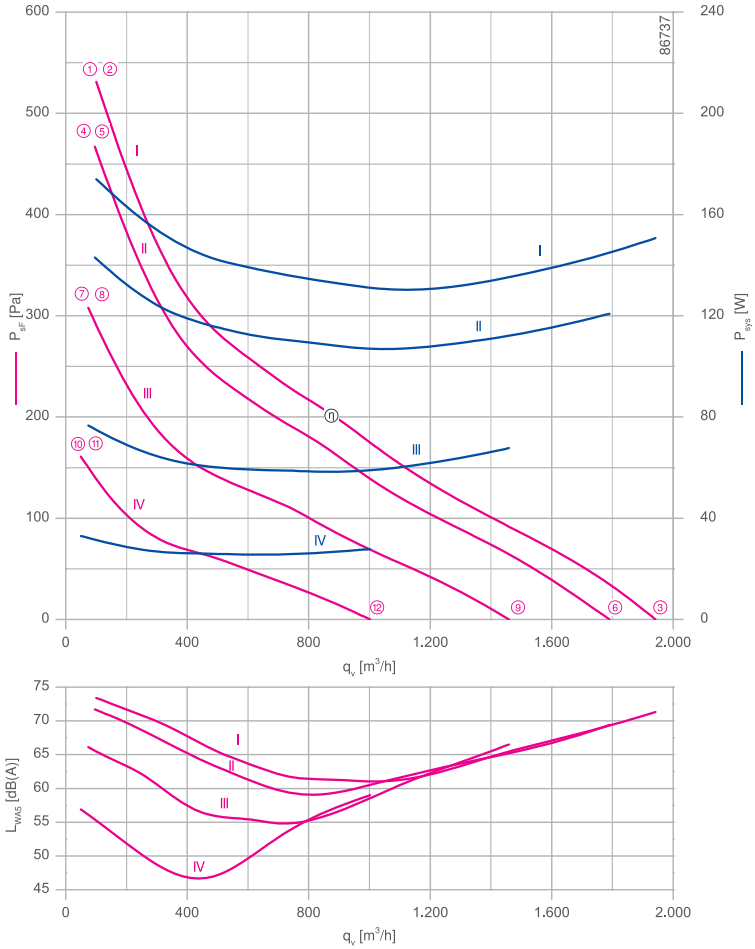
Vpro-EC blue

for single phase alternating current, 200-277 V

RH28V-6IP

Characteristic curve



measured with inlet ring, without guard grille according to ISO 5801

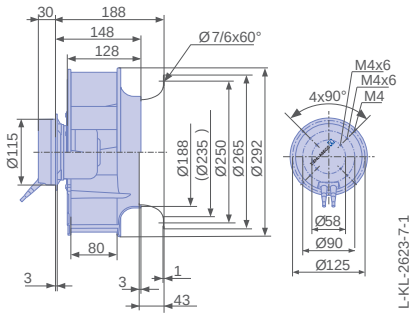
Description

Motor technology: EC
Rated voltage U: **1~200-277 V***
Rated frequency f: **50/60 Hz***
Motor input power P: **0.17 kW***
Rated current I: **1.30-0.94 A***
Rated speed n: **2300 min^{-1}***
Thermal class: **THCL155***
Min. permitted ambient temperature t_R: - 5 °C
Max. permitted ambient temperature t_R at n_{max}: 60 °C
Electrical connection: Integrated controller with attached cable
Number of blades : 6
Balancing quality: G 6.3
Protection class: IP44
Motor protection: Integrated active temperature management
Impeller : High Performance Composite Material, uncoated, black
Conformity: ErP 2015, CE
ErP-data
Efficiency η_{statA}: 43.6 %
Efficiency: N_{actual} = 63.3 / N_{target} = 62**
EC controller integrated
*Rated data
**ErP 2015

Inlet ring	00275848	Page 450
Connection diagram	KT00036A	Page 547
System components		Page 448

Dimensions [mm]

Free-running motor impeller RH
in installation position H/Vu/Vo



Performance data

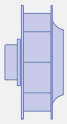
Type	Characteristic curve	Speed %	Operating point	Current I [A]	Motor input power P_{sys} [W]	Suction side sound power level L_{WA5} [dB]
RH28V-6IP.0E.1R	I	100	①	1.15	170	73
			②	1.15	170	73
			③	1.00	150	71
	II	80	④	0.94	140	72
			⑤	0.94	140	72
			⑥	0.82	120	69
	III	60	⑦	0.56	75	66
			⑧	0.56	75	66
			⑨	0.50	70	67
	IV	40	⑩	0.26	34	57
			⑪	0.26	34	57
			⑫	0.23	28	59

Current values determined at 230V

Fan ordering information

Design RH*

Installation position H/Vu/Vo



Type **RH28V-6IP.0E.1R**
Basic electronics
Article no. **113389**

Weight [kg] 3.10
* Inlet ring not included

Control technology

Control module

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Operating terminal

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Expansion module

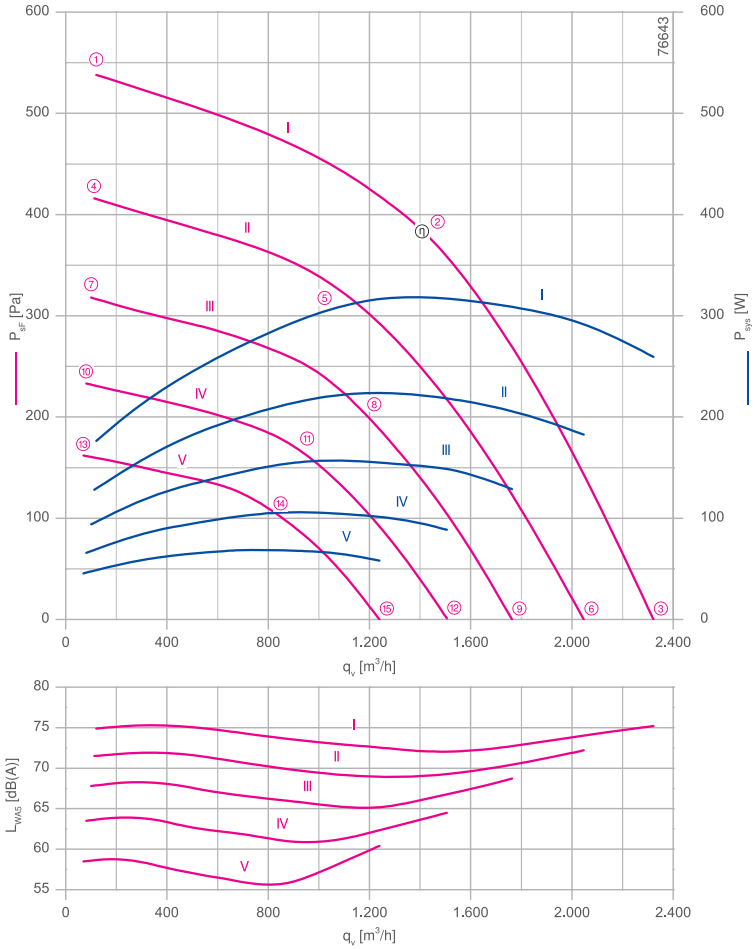
Page 473

Vpro-EC blue

for single phase alternating current, 200-277 V

RH28V-6IK

Characteristic curve



measured with inlet ring, without guard grille according to ISO 5801

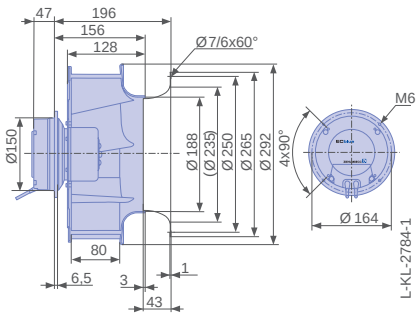
Description

Motor technology: EC
Rated voltage U: **1~200-277 V***
Rated frequency f: **50/60 Hz***
Motor input power P: **0.32 kW***
Rated current I: **1.70-1.20 A***
Rated speed n: **2270 min^{-1}***
Thermal class: **THCL155***
Min. permitted conveyor temperature t_R: -15 °C
Max. permitted conveyor temperature t_R at n_{max}: 60 °C
Electrical connection: Integrated controller with attached cable
Number of blades : 6
Balancing quality: G 6.3
Protection class: IP54
Motor protection: Integrated active temperature management
Impeller : High Performance Composite Material, uncoated, black
Conformity: ErP 2015, CE
ErP-data
Efficiency η_{statA}: 54.3 %
Efficiency: N_{actual} = 70.0 / N_{target} = 62**
EC controller integrated
*Rated data
**ErP 2015

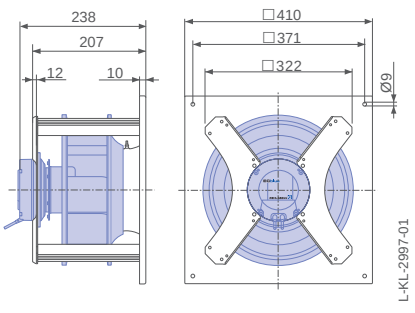
Inlet ring	00275848	Page 450
Connection diagram	KT00044A	Page 547
System components		Page 448

Dimensions [mm]

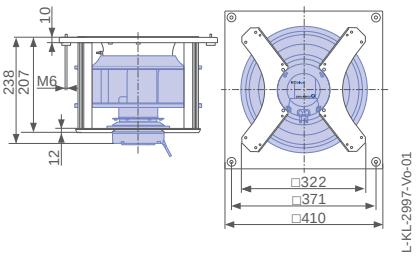
Free-running motor impeller RH in installation position H/Vu/Vo



Ventilation unit GR in installation position H



Ventilation unit GR in installation position Vo

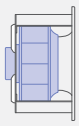
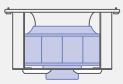


Performance data

Type	Characteristic curve	Speed n [min^{-1}]	Operating point	Current I [A]	Motor input power P_{sys} [W]	Suction side sound power level L_{WA5} [dB]
__28V-6IK.BF.1R	I	2270	①	0.84	180	75
		2270	②	1.45	320	72
		2270	③	1.20	260	75
	II	2000	④	0.64	130	72
		2000	⑤	1.05	220	69
		2000	⑥	0.88	180	72
	III	1750	⑦	0.48	95	68
		1750	⑧	0.76	160	66
		1750	⑨	0.64	130	69
	IV	1500	⑩	0.36	65	64
		1500	⑪	0.54	110	61
		1500	⑫	0.46	90	65
	V	1250	⑬	0.27	46	59
		1250	⑭	0.38	70	56
		1250	⑮	0.33	60	60

Current values determined at 230V

Fan ordering information

Design	RH*	GR**	GR**	GR**
Installation position	H/Vu/Vo	H	Vo	Vu
				
Type	**RH28V-6IK.BF.1R**	**GR28V-6IK.BF.1R**	**GR28V-6IK.BF.1R**	**GR28V-6IK.BF.1R**
Basic electronics				
Article no.	**113853**	**114947/H01**	**114947/O01**	**114947/U01**
Weight [kg]	5.10	10.00	10.00	10.00

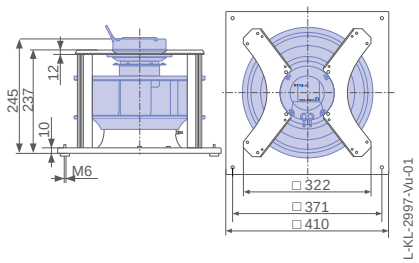
* Inlet ring not included

** Inlet ring integrated

Control technology

Control module	Operating terminal	Expansion module
		
Page 464	Page 476	Page 473

Ventilation unit GR in installation position Vu



Vpro-EC blue

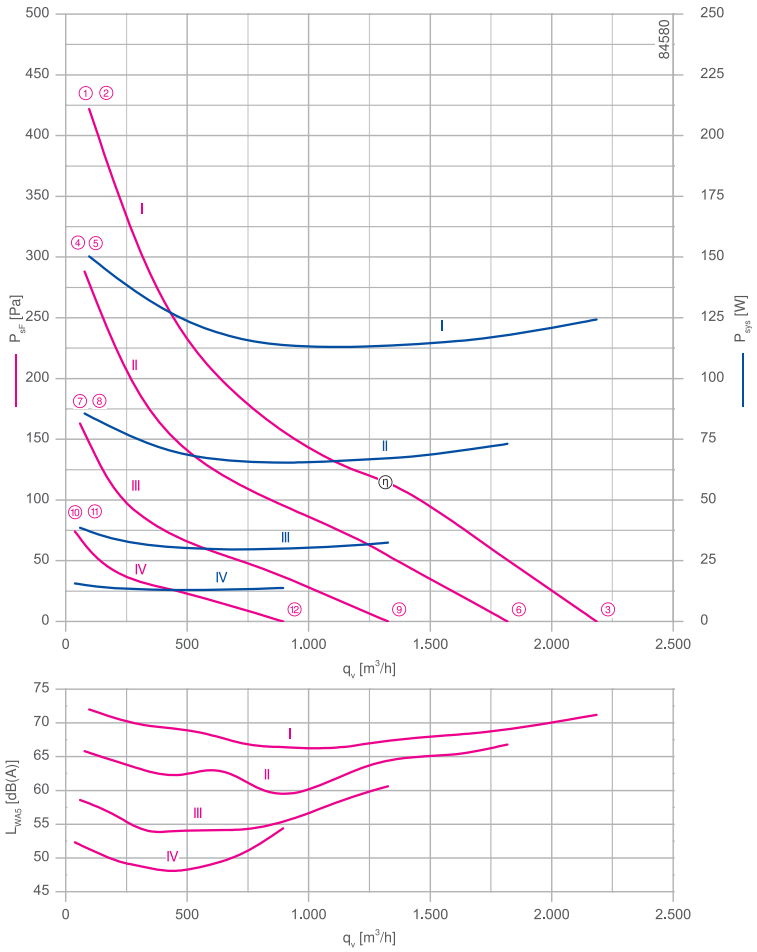
for single phase alternating current, 200-277 V

RH31V-6IP

Description

Motor technology: EC
Rated voltage U: **1~200-277 V***
Rated frequency f: **50/60 Hz***
Motor input power P: **0.15 kW***
Rated current I: **1.30-0.96 A***
Rated speed n: **1790 min^{-1}***
Thermal class: **THCL155***
Min. permitted ambient temperature t_R: - 5 °C
Max. permitted ambient temperature t_R at n_{max}: 60 °C
Electrical connection: Integrated controller with attached cable
Number of blades : 6
Balancing quality: G 6.3
Protection class: IP44
Motor protection: Integrated active temperature management
Impeller : High Performance Composite Material, uncoated, black
Conformity: CE
ErP-data
Not subject to ErP regulations (P_1< 125 W)
*Rated data

Characteristic curve

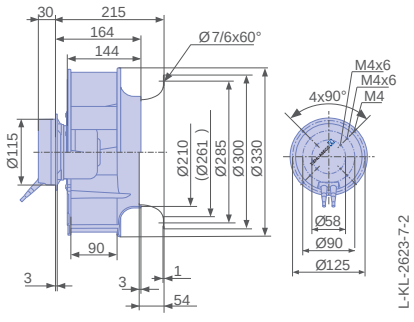


measured with inlet ring, without guard grille according to ISO 5801

Inlet ring	00335943	Page 450
Connection diagram	KT00036A	Page 547
System components		Page 448

Dimensions [mm]

Free-running motor impeller RH
in installation position H/Vu/Vo



Performance data

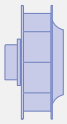
Type	Characteristic curve	Speed %	Operating point	Current I [A]	Motor input power P_{sys} [W]	Suction side sound power level L_{WA5} [dB]
RH31V-6IP.0E.1R	I	100	①	1.15	150	72
			②	1.15	150	72
			③	0.96	120	71
	II	80	④	0.68	85	66
			⑤	0.68	85	66
			⑥	0.58	75	67
	III	60	⑦	0.32	38	59
			⑧	0.32	38	59
			⑨	0.28	32	61
	IV	40	⑩	0.15	16	52
			⑪	0.15	16	52
			⑫	0.14	14	54

Current values determined at 230V

Fan ordering information

Design RH*

Installation position H/Vu/Vo



Type **RH31V-6IP.0E.1R**

Basic electronics

Article no. **114325**

Weight [kg] 3.40

* Inlet ring not included

** Inlet ring integrated

Control technology

Control module

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Operating terminal

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Expansion module

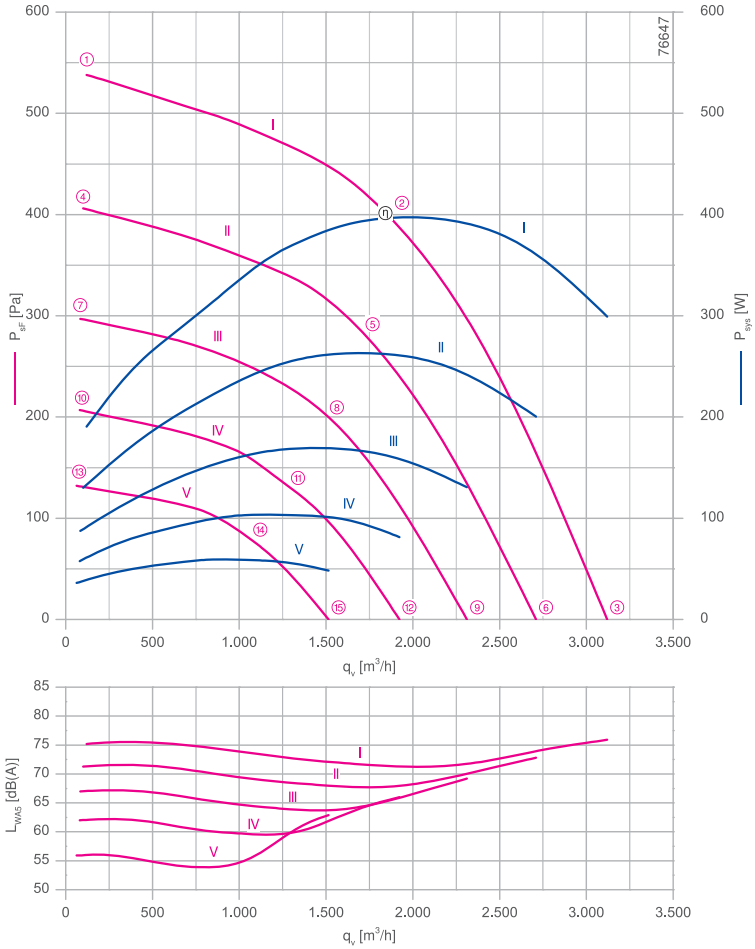
Page 473

Vpro-EC blue

for single phase alternating current, 200-277 V

R H 3 1 V - 6 I K

Characteristic curve



measured with inlet ring, without guard grille according to ISO 5801

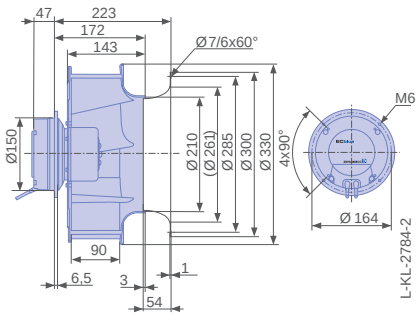
Description

Motor technology: EC
Rated voltage U: **1~200-277 V***
Rated frequency f: **50/60 Hz***
Motor input power P: **0.40 kW***
Rated current I: **2.10-1.50 A***
Rated speed n: **2010 min^{-1}***
Thermal class: **THCL155***
Min. permitted ambient temperature t_R: -15 °C
Max. permitted ambient temperature t_R at n_{max}: 60 °C
Electrical connection: Integrated controller with attached cable
Number of blades : 6
Balancing quality: G 6.3
Protection class: IP54
Motor protection: Integrated active temperature management
Impeller : High Performance Composite Material, uncoated, black
Conformity: ErP 2015, CE
ErP-data
Efficiency η_{statA}: 59.5 %
Efficiency: N_{actual} = 74.5 / N_{target} = 62**
EC controller integrated
*Rated data
**ErP 2015

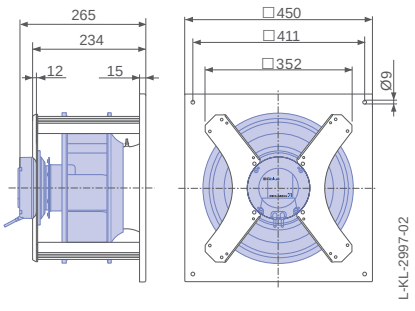
Inlet ring	00335943	Page 450
Connection diagram	KT00044A	Page 547
System components		Page 448

Dimensions [mm]

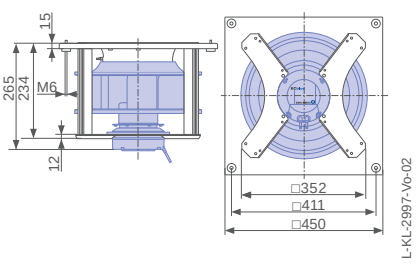
Free-running motor impeller RH in installation position H/Vu/Vo



Ventilation unit GR in installation position H



Ventilation unit GR in installation position Vo

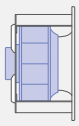
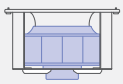


Performance data

Type	Characteristic curve	Speed n [min^{-1}]	Operating point	Current I [A]	Motor input power P_{sys} [W]	Suction side sound power level L_{WA5} [dB]
__31V-6IK.BF.1R	I	2010	①	0.90	190	75
		2010	②	1.80	400	71
		2010	③	1.40	300	76
	II	1750	④	0.64	130	71
		1750	⑤	1.20	260	68
		1750	⑥	0.94	200	73
	III	1500	⑦	0.46	85	67
		1500	⑧	0.80	170	64
		1500	⑨	0.64	130	69
	IV	1250	⑩	0.33	60	62
		1250	⑪	0.52	100	60
		1250	⑫	0.44	80	66
	V	1000	⑬	0.23	36	56
		1000	⑭	0.33	60	54
		1000	⑮	0.29	48	63

Current values determined at 230V

Fan ordering information

Design	RH*	GR**	GR**	GR**
Installation position	H/Vu/Vo	H	Vo	Vu
				
Type	**RH31V-6IK.BF.1R**	**GR31V-6IK.BF.1R**	**GR31V-6IK.BF.1R**	**GR31V-6IK.BF.1R**
Basic electronics				
Article no.	**113854**	**114948/H01**	**114948/O01**	**114948/U01**
Weight [kg]	5.40	12.00	12.00	12.00

* Inlet ring not included

** Inlet ring integrated

Control technology

Control module	Operating terminal	Expansion module
		
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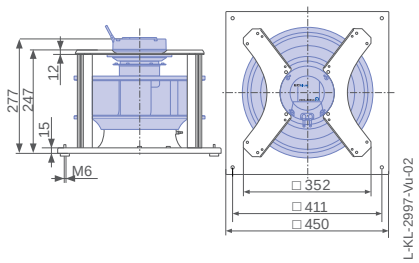
Ventilation unit GR in installation position Vu

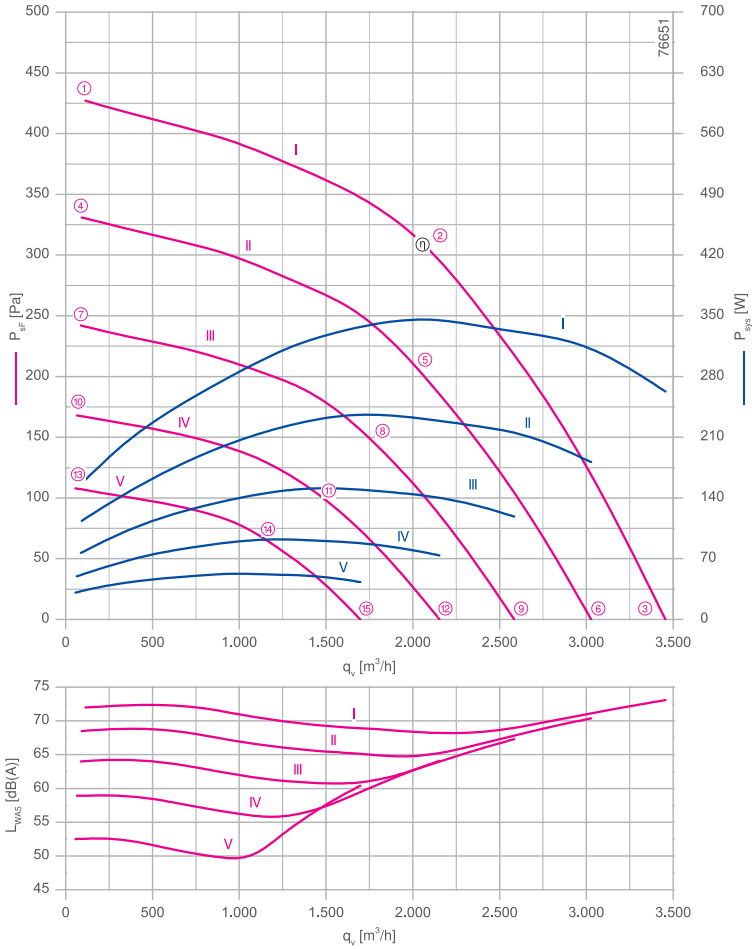


Vpro-EC blue

for single phase alternating current, 200-277 V

RH35V-6IK

Characteristic curve



measured with inlet ring, without guard grille according to ISO 5801

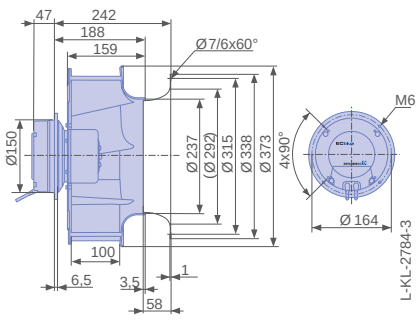
Description

Motor technology: EC
Rated voltage U: **1~200-277 V***
Rated frequency f: **50/60 Hz***
Motor input power P: **0.35 kW***
Rated current I: **1.85-1.30 A***
Rated speed n: **1590 min^{-1}***
Thermal class: **THCL155***
Min. permitted ambient temperature t_R: -15 °C
Max. permitted ambient temperature t_R at n_{max}: 60 °C
Electrical connection: Integrated controller with attached cable
Number of blades : 6
Balancing quality: G 6.3
Protection class: IP54
Motor protection: Integrated active temperature management
Impeller : High Performance Composite Material, uncoated, black
Conformity: ErP 2015, CE
ErP-data
Efficiency η_{statA}: 58.7 %
Efficiency: N_{actual} = 74.1 / N_{target} = 62**
EC controller integrated
*Rated data
**ErP 2015

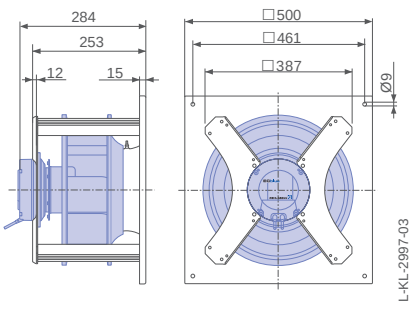
Inlet ring	00275850	Page 450
Connection diagram	KT00044A	Page 547
System components		Page 448

Dimensions [mm]

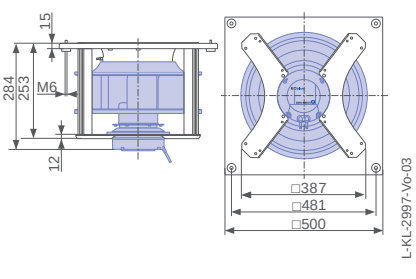
Free-running motor impeller RH in installation position H/Vu/Vo



Ventilation unit GR in installation position H



Ventilation unit GR in installation position Vo

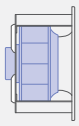
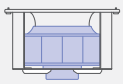


Performance data

Type	Characteristic curve	Speed n [min^{-1}]	Operating point	Current I [A]	Motor input power P_{sys} [W]	Suction side sound power level L_{WA5} [dB]
__35V-6IK.BF.1R	I	1590	①	0.78	160	72
		1590	②	1.60	350	68
		1590	③	1.20	260	73
	II	1400	④	0.56	110	69
		1400	⑤	1.10	240	65
		1400	⑥	0.86	180	70
	III	1200	⑦	0.42	75	64
		1200	⑧	0.72	150	61
		1200	⑨	0.58	120	67
	IV	1000	⑩	0.29	50	59
		1000	⑪	0.48	90	56
		1000	⑫	0.40	75	64
	V	800	⑬	0.20	32	53
		800	⑭	0.30	55	50
		800	⑮	0.27	44	60

Current values determined at 230V

Fan ordering information

Design	RH*	GR**	GR**	GR**
Installation position	H/Vu/Vo	H	Vo	Vu
				
Type	**RH35V-6IK.BF.1R**	**GR35V-6IK.BF.1R**	**GR35V-6IK.BF.1R**	**GR35V-6IK.BF.1R**
Basic electronics				
Article no.	**113855**	**114949/H01**	**114949/O01**	**114949/U01**
Weight [kg]	5.90	13.00	13.00	13.00

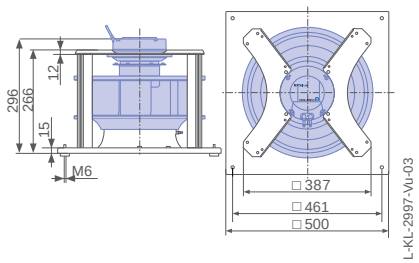
* Inlet ring not included

** Inlet ring integrated

Control technology

Control module	Operating terminal	Expansion module
		
Page 464	Page 476	Page 473

Ventilation unit GR in installation position Vu

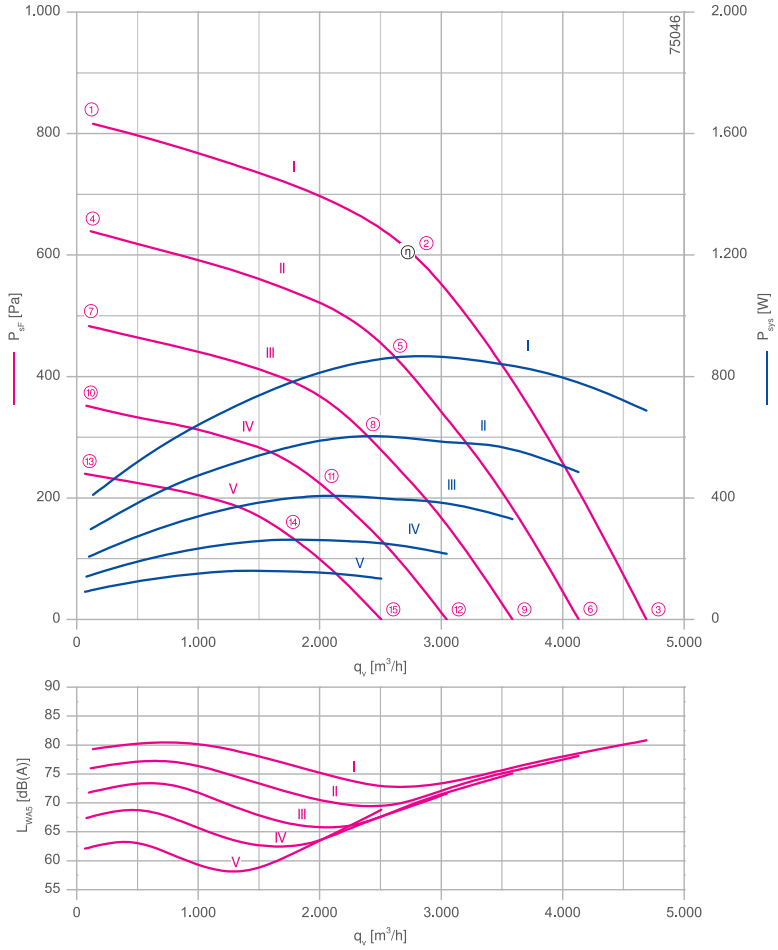


Vpro-EC blue

for single phase alternating current, 200-277 V

RH35V-ZIK

Characteristic curve



measured in inlet ring without guard grille according to ISO 5801

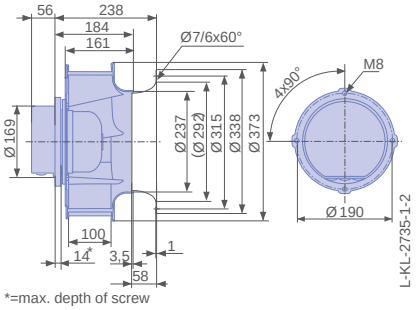
Description

Motor technology: EC
Rated voltage U: **1~200-277 V***
Rated frequency f: **50/60 Hz***
Motor input power P: **0.86 kW***
Rated current I: **4.40-3.20 A***
Rated speed n: **2200 min^{-1}***
Thermal class: **THCL155***
Min. permitted ambient temperature t_R: -15 °C
Max. permitted ambient temperature t_R at n_{max}: 60 °C
Electrical connection: integrated Controller
Number of blades : 6
Balancing quality: G 6.3
Protection class: IP54
Motor protection: Integrated active temperature management
Impeller : High Performance Composite Material, uncoated, black
Conformity: ErP 2015, CE
ErP-data
Efficiency η_{statA}: 59.7 %
Efficiency: N_{actual} = 70.8 / N_{target} = 62**
EC controller integrated
*Rated data
**ErP 2015

Inlet ring	00275850	Page 148
Connection diagram	1360-401	Page 548
System components		Page 448

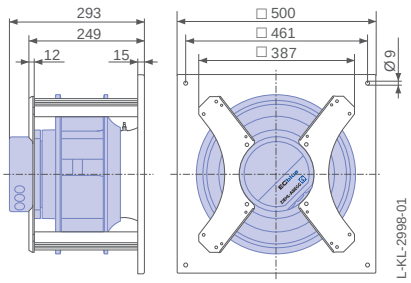
Dimensions [mm]

Free-running motor impeller RH in installation position H/Vu/Vo

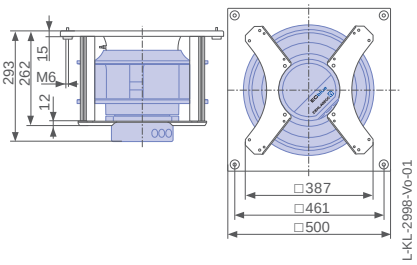


*=max. depth of screw

Ventilation unit GR in installation position H



Ventilation unit GR in installation position Vo

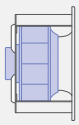
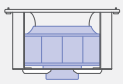


Performance data

Type	Characteristic curve	Speed n [min^{-1}]	Operating point	Current I [A]	Motor input power P_{sys} [W]	Suction side sound power level L_{WA5} [dB]
__35V-ZIK.DC.1R	I	2200	①	1.90	400	79
		2200	②	3.90	860	73
		2200	③	3.10	680	81
	II	1950	④	1.40	300	76
		1950	⑤	2.80	600	70
		1950	⑥	2.30	480	78
	III	1700	⑦	0.94	210	72
		1700	⑧	1.90	400	66
		1700	⑨	1.55	330	75
	IV	1450	⑩	0.66	140	67
		1450	⑪	1.25	260	63
		1450	⑫	1.00	220	72
	V	1200	⑬	0.48	90	62
		1200	⑭	0.74	160	58
		1200	⑮	0.64	130	69

Current values determined at 230V

Fan ordering information

Design	RH*	GR**	GR**	GR**
Installation position	H/Vu/Vo	H	Vo	Vu
				
Type	**RH35V-ZIK.DC.1R**	**GR35V-ZIK.DC.1R**	**GR35V-ZIK.DC.1R**	**GR35V-ZIK.DC.1R**
Basic electronics				
Article no.	**113468**	**114950/H01**	**114950/O01**	**114950/U01**
Premium electronics				
Article no.	**113497**			
Weight [kg]	9.00	16.00	16.00	16.00

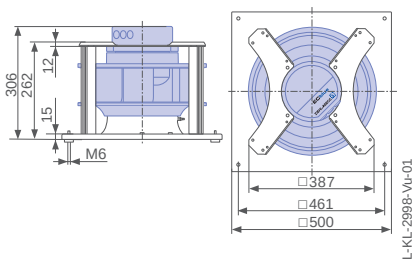
* Inlet ring not included

** Inlet ring integrated

Control technology

Control module	Operating terminal	Expansion module
		
Page 464	Page 476	Page 473

Ventilation unit GR in installation position Vu



Vpro-EC blue

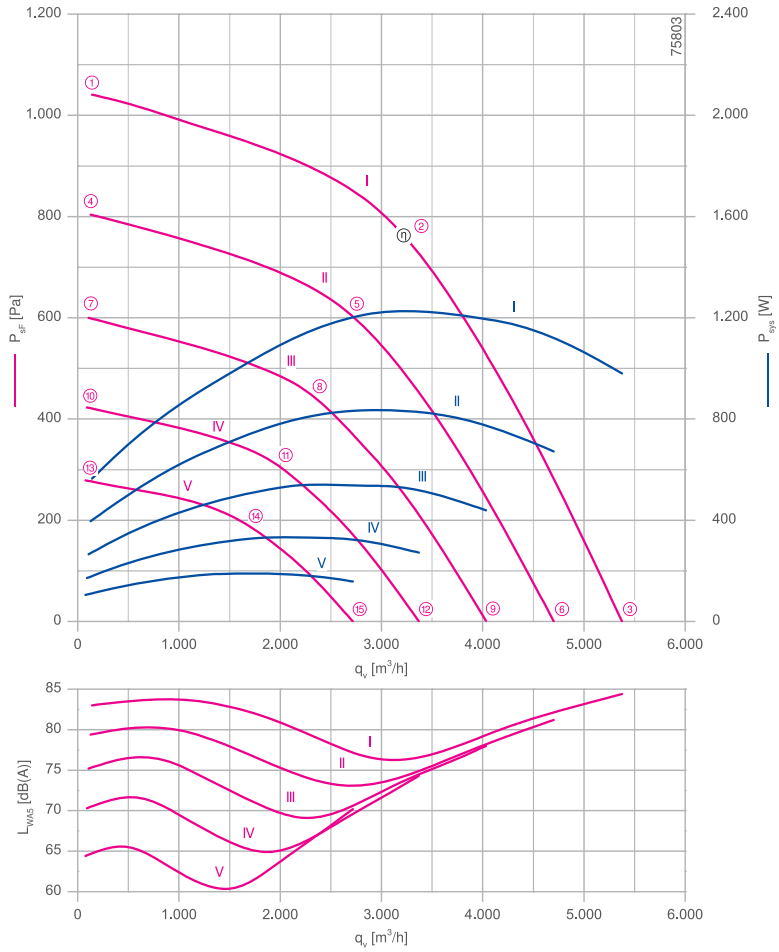
for three phase alternating current, 200-240 V

RH35V-ZIK

Description

Motor technology: EC
Rated voltage U: **3~200-240 V***
Rated frequency f: **50/60 Hz***
Motor input power P: **1.25 kW***
Rated current I: **3.80-3.20 A***
Rated speed n: **2500 min^{-1}***
Thermal class: **THCL155***
Min. permitted ambient temperature t_R: -15 °C
Max. permitted ambient temperature t_R at n_{max}: 60 °C
Electrical connection: integrated Controller
Number of blades : 6
Balancing quality: G 6.3
Protection class: IP54
Motor protection: Integrated active temperature management
Impeller : High Performance Composite Material, uncoated, black
Conformity: ErP 2015, CE
ErP-data
Efficiency η_{statA}: 62.9 %
Efficiency: N_{actual} = 72.6 / N_{target} = 62**
EC controller integrated
*Rated data
**ErP 2015

Characteristic curve

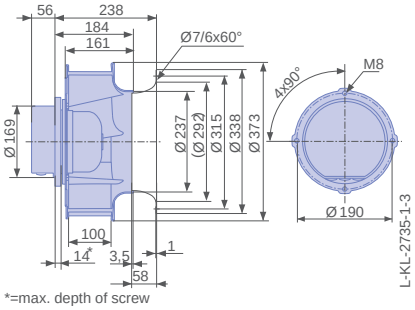


measured with inlet ring, without guard grille according to ISO 5801

Inlet ring	00275850	Page 450
Connection diagram	1360-401	Page 548
System components		Page 448

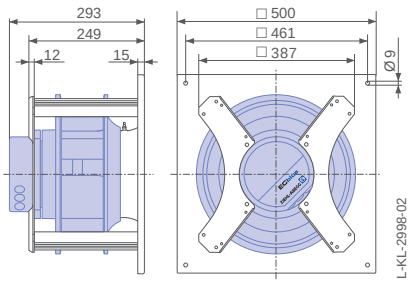
Dimensions [mm]

Free-running motor impeller RH in installation position H/Vu/Vo

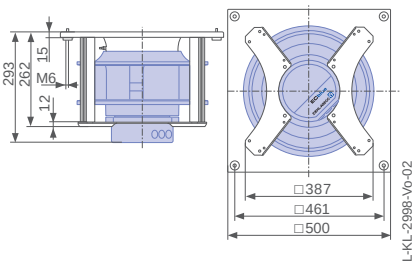


*=max. depth of screw

Ventilation unit GR in installation position H



Ventilation unit GR in installation position Vo

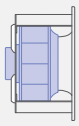
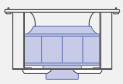


Performance data

Type	Characteristic curve	Speed n [min^{-1}]	Operating point	Current I [A]	Motor input power P_{sys} [W]	Suction side sound power level L_{WA5} [dB]
__35V-ZIK.DC.1R	I	2500	①	1.50	560	83
		2500	②	3.30	1250	76
		2500	③	2.60	980	84
	II	2200	④	1.10	400	79
		2200	⑤	2.20	840	73
		2200	⑥	1.80	680	81
	III	1900	⑦	0.76	270	75
		1900	⑧	1.45	540	69
		1900	⑨	1.20	440	78
	IV	1600	⑩	0.54	170	70
		1600	⑪	0.94	330	69
		1600	⑫	0.78	270	74
	V	1300	⑬	0.38	100	64
		1300	⑭	0.60	190	65
		1300	⑮	0.52	160	70

Current values determined at 230V

Fan ordering information

Design	RH*	GR**	GR**	GR**
Installation position	H/Vu/Vo	H	Vo	Vu
				
Type	**RH35V-ZIK.DC.1R**	**GR35V-ZIK.DC.1R**	**GR35V-ZIK.DC.1R**	**GR35V-ZIK.DC.1R**
Basic electronics				
Article no.	**113529**	**114951/H01**	**114951/O01**	**114951/U01**
Premium electronics				
Article no.	**113530**			
Weight [kg]	9.00	16.00	16.00	16.00

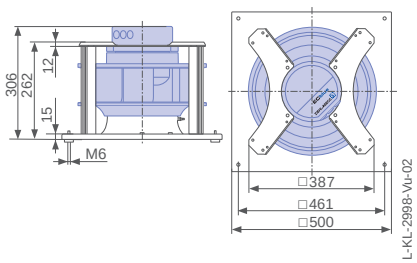
* Inlet ring not included

** Inlet ring integrated

Control technology

Control module	Operating terminal	Expansion module
		
Page 464	Page 476	Page 473

Ventilation unit GR in installation position Vu

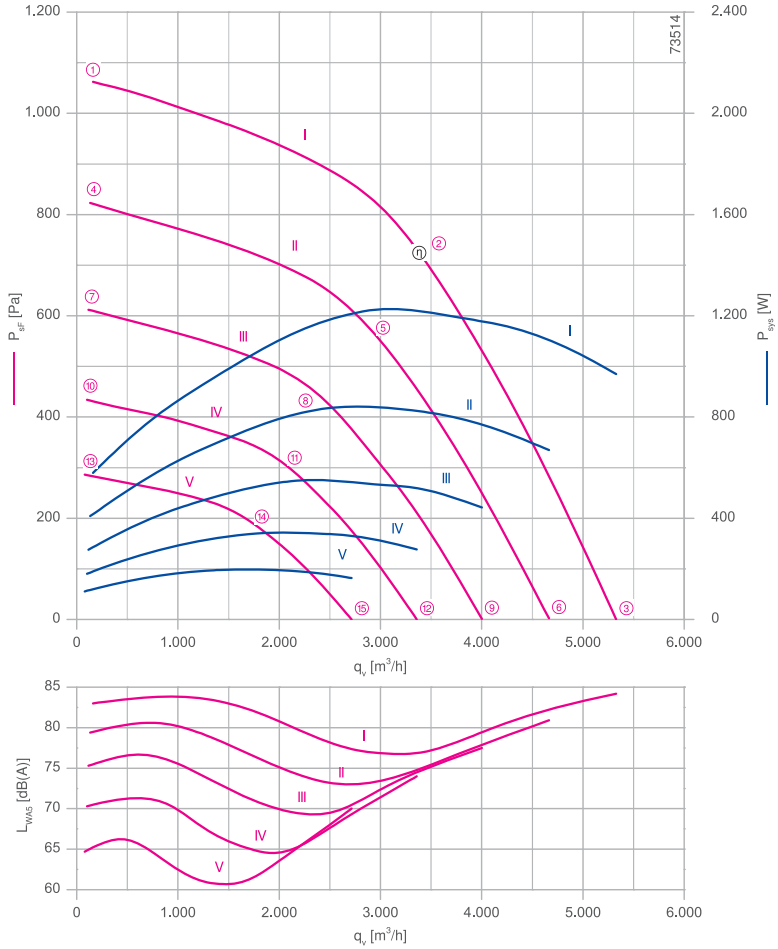


Vpro-EC blue

for three phase alternating current, 380-480 V

RH35V-ZIK

Characteristic curve



measured with inlet ring, without guard grille according to ISO 5801

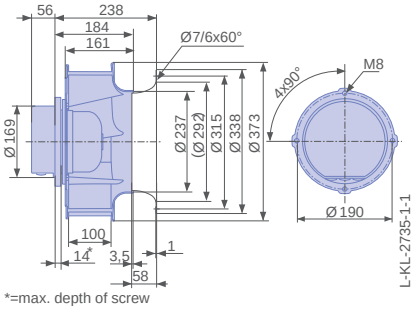
Description

Motor technology: EC
Rated voltage U: **3~380-480 V***
Rated frequency f: **50/60 Hz***
Motor input power P: **1.25 kW***
Rated current I: **2.10-1.65 A***
Rated speed n: **2500 min^{-1}***
Thermal class: **THCL155***
Min. permitted ambient temperature t_R: -15 °C
Max. permitted ambient temperature t_R at n_{max}: 60 °C
Electrical connection: integrated Controller
Number of blades : 6
Balancing quality: G 6.3
Protection class: IP54
Motor protection: Integrated active temperature management
Impeller : High Performance Composite Material, uncoated, black
Conformity: ErP 2015, CE
ErP-data
Efficiency η_{statA}: 62.0 %
Efficiency: N_{actual} = 71.6 / N_{target} = 62**
EC controller integrated
*Rated data
**ErP 2015

Inlet ring	00275850	Page 450
Connection diagram	1360-401	Page 548
System components		Page 448

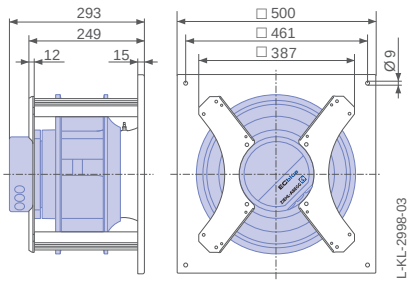
Dimensions [mm]

Free-running motor impeller RH in installation position H/Vu/Vo

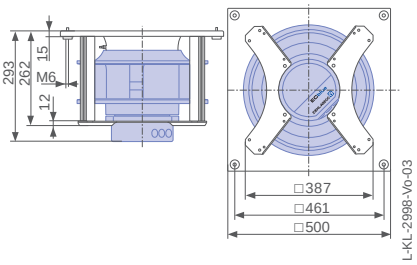


*=max. depth of screw

Ventilation unit GR in installation position H



Ventilation unit GR in installation position Vo

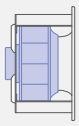
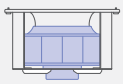


Performance data

Type	Characteristic curve	Speed n [min^{-1}]	Operating point	Current I [A]	Motor input power P_{sys} [W]	Suction side sound power level L_{WA5} [dB]
__35V-ZIK.DC.1R	I	2500	①	1.10	580	83
		2500	②	2.00	1250	77
		2500	③	1.65	960	84
	II	2200	④	0.94	400	79
		2200	⑤	1.50	840	73
		2200	⑥	1.25	660	81
	III	1900	⑦	0.70	280	75
		1900	⑧	1.10	540	70
		1900	⑨	0.98	440	78
	IV	1600	⑩	0.50	180	70
		1600	⑪	0.86	340	65
		1600	⑫	0.72	280	74
	V	1300	⑬	0.34	110	65
		1300	⑭	0.54	200	61
		1300	⑮	0.46	160	70

Current values determined at 400V

Fan ordering information

Design	RH*	GR**	GR**	GR**
Installation position	H/Vu/Vo	H	Vo	Vu
				
Type	**RH35V-ZIK.DC.1R**	**GR35V-ZIK.DC.1R**	**GR35V-ZIK.DC.1R**	**GR35V-ZIK.DC.1R**
Basic electronics				
Article no.	**113466**	**114952/H01**	**114952/O01**	**114952/U01**
Premium electronics				
Article no.	**113495**			
Weight [kg]	9.00	16.00	16.00	19.00

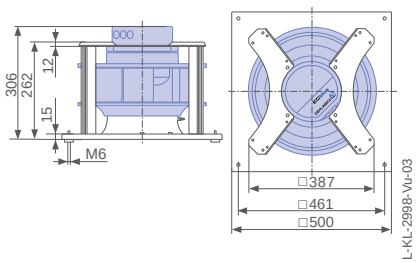
* Inlet ring not included

** Inlet ring integrated

Control technology

Control module	Operating terminal	Expansion module
		
Page 464	Page 476	Page 473

Ventilation unit GR in installation position Vu



Vpro-EC blue

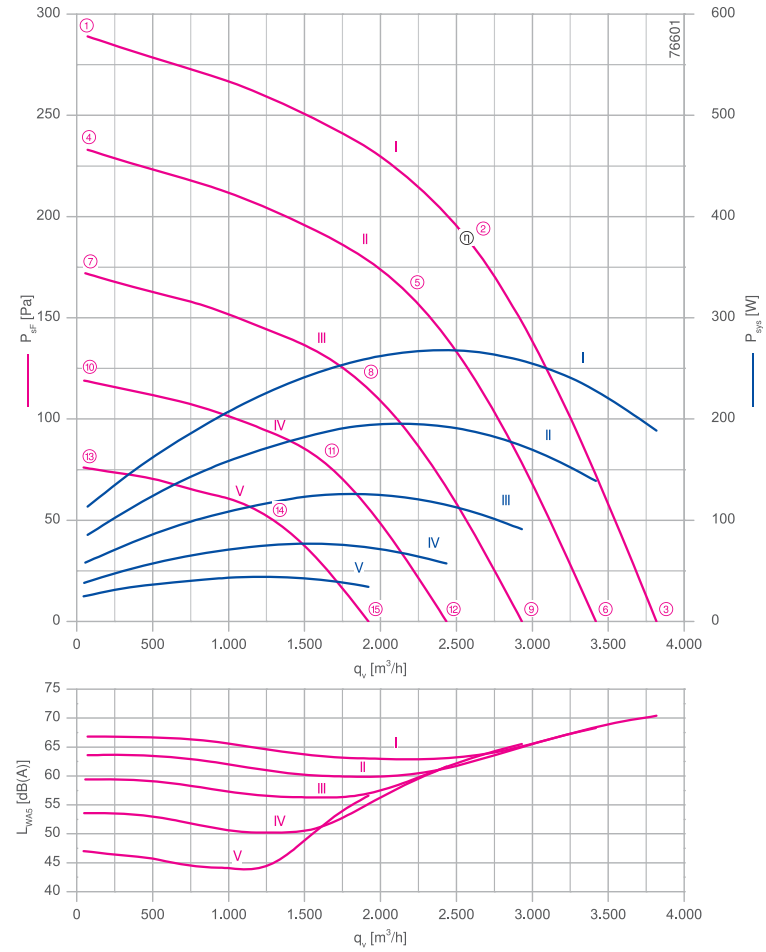
for single phase alternating current, 200-277 V

RH40V-6IK

Description

Motor technology: EC
Rated voltage U: **1~200-277 V***
Rated frequency f: **50/60 Hz***
Motor input power P: **0.27 kW***
Rated current I: **1.45-1.05 A***
Rated speed n: **1170 min^{-1}***
Thermal class: **THCL155***
Min. permitted ambient temperature t_R: -15 °C
Max. permitted ambient temperature t_R at n_{max}: 60 °C
Electrical connection: Integrated controller with attached cable
Number of blades : 6
Balancing quality: G 6.3
Protection class: IP54
Motor protection: Integrated active temperature management
Impeller : High Performance Composite Material, uncoated, black
Conformity: ErP 2015, CE
ErP-data
Efficiency η_{statA}: 58.5 %
Efficiency: N_{actual} = 75.0 / N_{target} = 62**
EC controller integrated
*Rated data
**ErP 2015

Characteristic curve

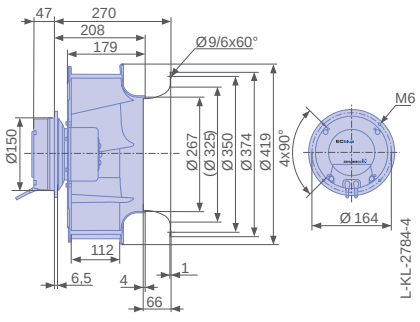


measured with inlet ring, without guard grille according to ISO 5801

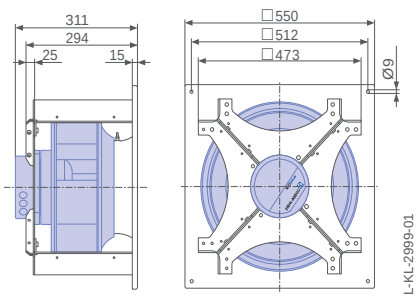
Inlet ring	00275570	Page 450
Connection diagram	KT00044A	Page 547
System components		Page 448

Dimensions [mm]

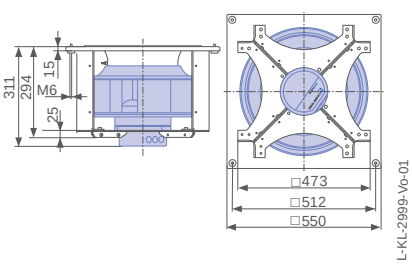
Free-running motor impeller RH in installation position H/Vu/Vo



Ventilation unit GR in installation position H



Ventilation unit GR in installation position Vo

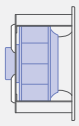
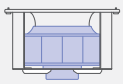


Performance data

Type	Characteristic curve	Speed n [min^{-1}]	Operating point	Current I [A]	Motor input power P_{sys} [W]	Suction side sound power level L_{WA5} [dB]
__40V-6IK.BF.1R	I	1170	①	0.56	110	67
		1170	②	1.25	270	63
		1170	③	0.90	190	70
	II	1050	④	0.46	85	64
		1050	⑤	0.92	200	60
		1050	⑥	0.68	140	68
	III	900	⑦	0.33	60	59
		900	⑧	0.62	130	57
		900	⑨	0.48	90	66
	IV	750	⑩	0.24	38	54
		750	⑪	0.42	75	51
		750	⑫	0.33	55	62
	V	600	⑬	0.18	24	47
		600	⑭	0.27	44	44
		600	⑮	0.22	34	57

Current values determined at 230V

Fan ordering information

Design	RH*	GR**	GR**	GR**
Installation position	H/Vu/Vo	H	Vo	Vu
				
Type	**RH40V-6IK.BF.1R**	**GR40V-6IK.BF.1R**	**GR40V-6IK.BF.1R**	**GR40V-6IK.BF.1R**
Basic electronics				
Article no.	**113856**	**114953/H01**	**114953/O01**	**114953/U01**
Weight [kg]	7.00	22.00	23.00	23.00

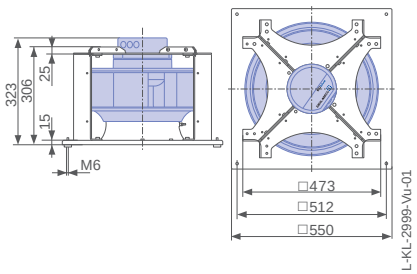
* Inlet ring not included

** Inlet ring integrated

Control technology

Control module	Operating terminal	Expansion module
		
Page 464	Page 476	Page 473

Ventilation unit GR in installation position Vu

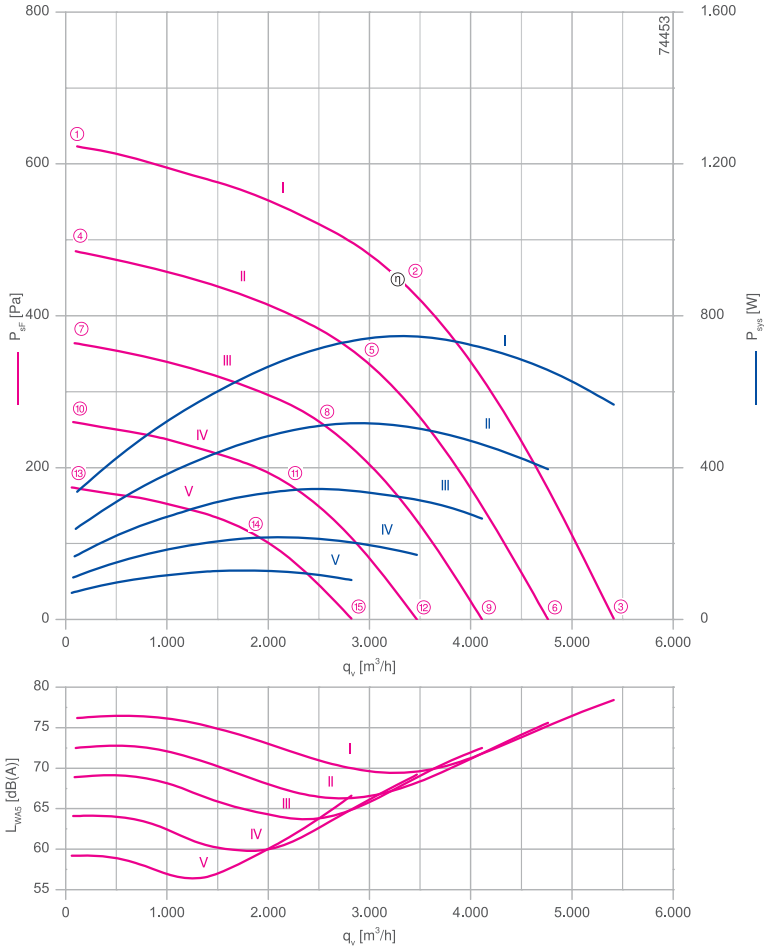


Vpro-EC blue

for single phase alternating current, 200-277 V

RH40V-ZIK

Characteristic curve



measured with inlet ring, without guard grille according to ISO 5801

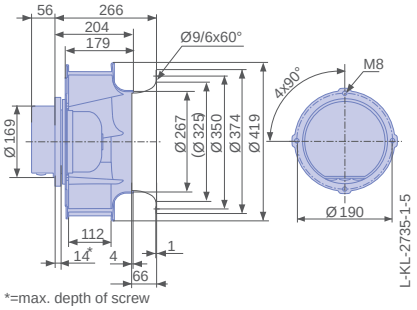
Description

Motor technology: EC
Rated voltage U: **1~200-277 V***
Rated frequency f: **50/60 Hz***
Motor input power P: **0.74 kW***
Rated current I: **3.90-2.80 A***
Rated speed n: **1700 min^{-1}***
Thermal class: **THCL155***
Min. permitted ambient temperature t_R: -15 °C
Max. permitted ambient temperature t_R at n_{max}: 60 °C
Electrical connection: integrated Controller
Number of blades : 6
Balancing quality: G 6.3
Protection class: IP54
Motor protection: Integrated active temperature management
Impeller : High Performance Composite Material, uncoated, black
Conformity: ErP 2015, CE
ErP-data
Efficiency η_{statA}: 61.7 %
Efficiency: N_{actual} = 73.6 / N_{target} = 62**
EC controller integrated
*Rated data
**ErP 2015

Inlet ring	00275570	Page 450
Connection diagram	1360-401	Page 548
System components		Page 448

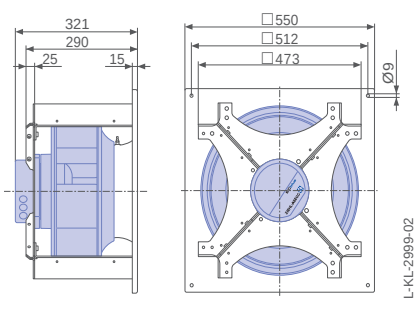
Dimensions [mm]

Free-running motor impeller RH in installation position H/Vu/Vo

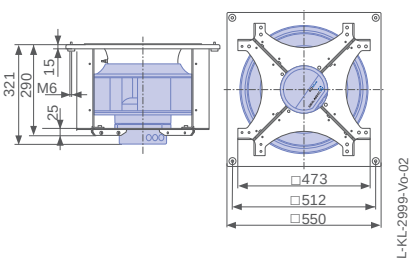


*=max. depth of screw

Ventilation unit GR in installation position H



Ventilation unit GR in installation position Vo

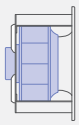
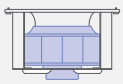


Performance data

Type	Characteristic curve	Speed n [min^{-1}]	Operating point	Current I [A]	Motor input power P_{sys} [W]	Suction side sound power level L_{WA5} [dB]
__40V-ZIK.DC.1R	I	1700	①	1.60	340	76
		1700	②	3.40	740	69
		1700	③	2.60	560	78
	II	1500	④	1.10	240	73
		1500	⑤	2.40	520	66
		1500	⑥	1.85	400	76
	III	1300	⑦	0.76	170	69
		1300	⑧	1.60	340	64
		1300	⑨	1.25	270	73
	IV	1100	⑩	0.56	110	64
		1100	⑪	1.00	220	60
		1100	⑫	0.78	170	69
	V	900	⑬	0.40	70	59
		900	⑭	0.62	130	58
		900	⑮	0.52	100	67

Current values determined at 230V

Fan ordering information

Design	RH*	GR**	GR**	GR**
Installation position	H/Vu/Vo	H	Vo	Vu
				
Type	**RH40V-ZIK.DC.1R**	**GR40V-ZIK.DC.1R**	**GR40V-ZIK.DC.1R**	**GR40V-ZIK.DC.1R**
Basic electronics				
Article no.	**113471**	**114954/H01**	**114954/O01**	**114954/U01**
Premium electronics				
Article no.	**113500**			
Weight [kg]	10.00	25.00	25.00	25.00

* Inlet ring not included

** Inlet ring integrated

Control technology

Control module	Operating terminal	Expansion module
		
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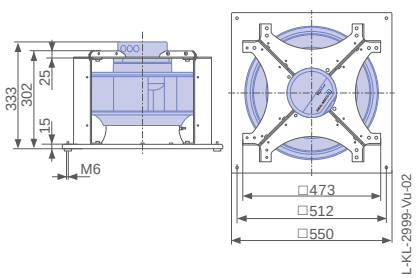
Ventilation unit GR in installation position Vu



Vpro-EC blue

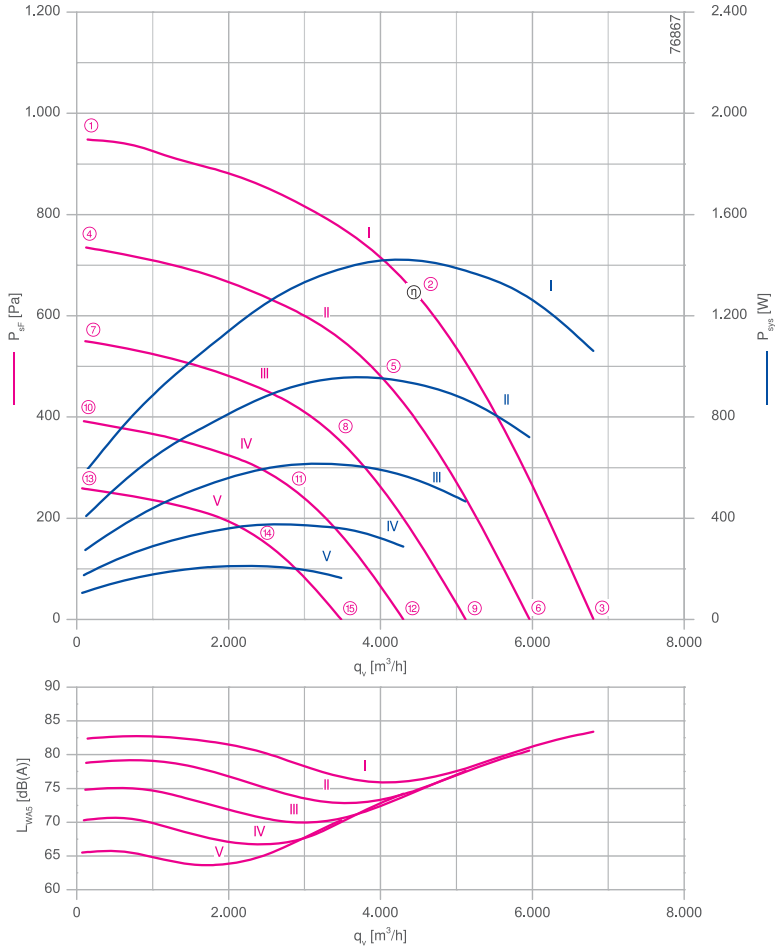
for three phase alternating current, 200-240 V

RH40V-ZIK

Description

Motor technology: EC
Rated voltage U: **3~200-240 V***
Rated frequency f: **50/60 Hz***
Motor input power P: **1.40 kW***
Rated current I: **4.30-3.60 A***
Rated speed n: **2100 min^{-1}***
Thermal class: **THCL155***
Min. permitted ambient temperature t_R: -15 °C
Max. permitted ambient temperature t_R at n_{max}: 60 °C
Electrical connection: integrated Controller
Number of blades : 6
Balancing quality: G 6.3
Protection class: IP54
Motor protection: Integrated active temperature management
Impeller : High Performance Composite Material, uncoated, black
Conformity: ErP 2015, CE
ErP-data
Efficiency η_{statA}: 62.3 %
Efficiency: N_{actual} = 71.2 / N_{target} = 62**
EC controller integrated
*Rated data
**ErP 2015

Characteristic curve



measured with inlet ring, without guard grille according to ISO 5801

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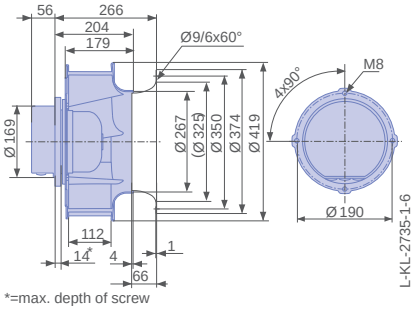
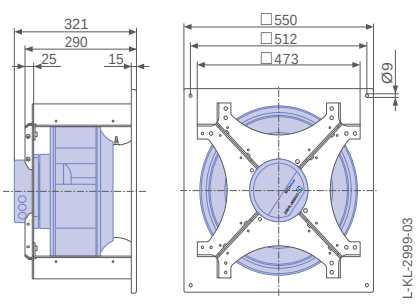
Dimensions [mm]

Free-running motor impeller RH in installation position H/Vu/Vo

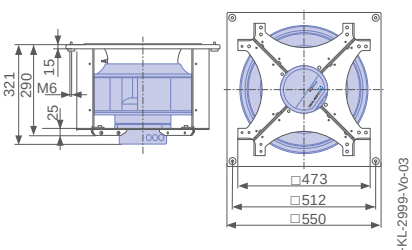


*=max. depth of screw

Ventilation unit GR in installation position H



Ventilation unit GR in installation position Vo

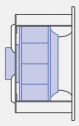
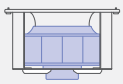


Performance data

Type	Characteristic curve	Speed n [min^{-1}]	Operating point	Current I [A]	Motor input power P_{sys} [W]	Suction side sound power level L_{WA5} [dB]
__40V-ZIK.DC.1R	I	2100	①	1.60	600	82
		2100	②	3.80	1400	76
		2100	③	2.80	1050	83
	II	1850	④	1.15	400	79
		1850	⑤	2.60	960	73
		1850	⑥	1.95	720	81
	III	1600	⑦	0.80	270	75
		1600	⑧	1.65	620	70
		1600	⑨	1.30	460	78
	IV	1350	⑩	0.56	180	70
		1350	⑪	1.05	380	67
		1350	⑫	0.84	290	74
	V	1100	⑬	0.40	100	66
		1100	⑭	0.66	210	64
		1100	⑮	0.54	160	70

Current values determined at 230V

Fan ordering information

Design	RH*	GR**	GR**	GR**
Installation position	H/Vu/Vo	H	Vo	Vu
				
Type	**RH40V-ZIK.DC.1R**	**GR40V-ZIK.DC.1R**	**GR40V-ZIK.DC.1R**	**GR40V-ZIK.DC.1R**
Basic electronics				
Article no.	**113535**	**114955/H01**	**114955/O01**	**114955/U01**
Premium electronics				
Article no.	**113536**			
Weight [kg]	10.00	25.00	25.00	25.00

* Inlet ring not included

** Inlet ring integrated

Control technology

Control module	Operating terminal	Expansion module
		
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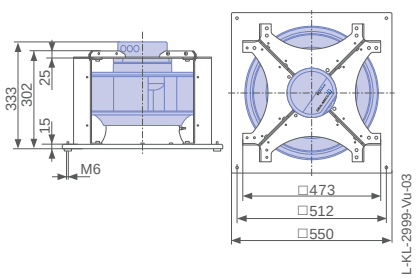
Ventilation unit GR in installation position Vu

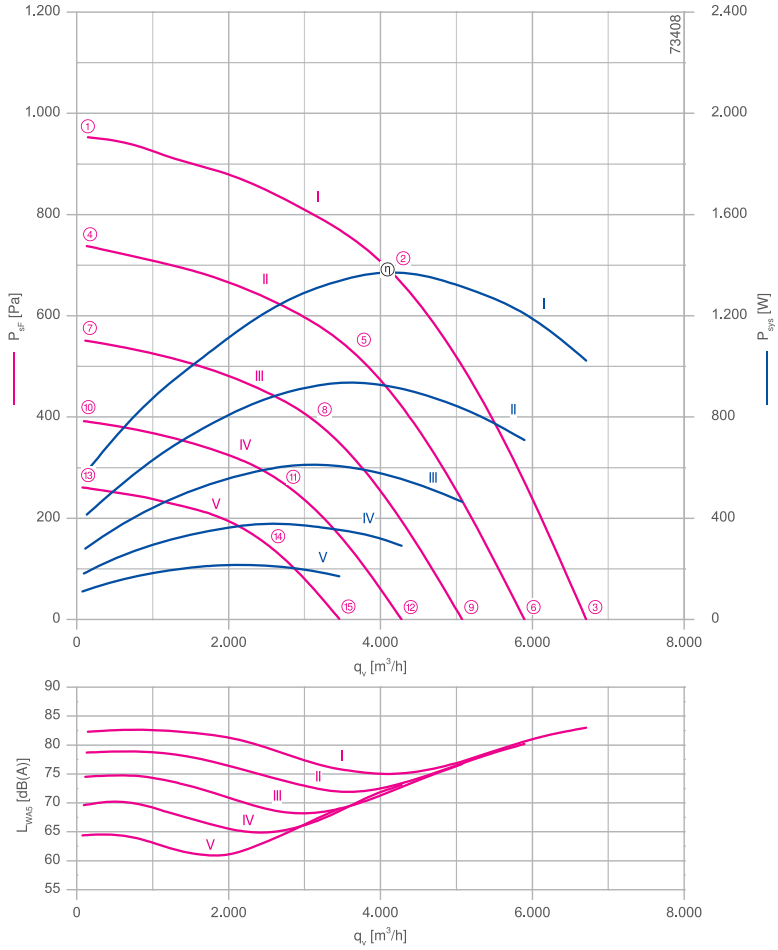


Vpro-EC blue

for three phase alternating current, 380-480 V

RH40V-ZIK

Characteristic curve



measured with inlet ring, without guard grille according to ISO 5801

Description

Motor technology: EC
Rated voltage U: **3~380-480 V***
Rated frequency f: **50/60 Hz***
Motor input power P: **1.35 kW***
Rated current I: **2.40-1.90 A***
Rated speed n: **2100 min^{-1}***
Thermal class: **THCL155***
Min. permitted ambient temperature t_R: -15 °C
Max. permitted ambient temperature t_R at n_{max}: 60 °C
Electrical connection: integrated Controller
Number of blades : 6
Balancing quality: G 6.3
Protection class: IP54
Motor protection: Integrated active temperature management
Impeller : High Performance Composite Material, uncoated, black
Conformity: ErP 2015, CE
ErP-data
Efficiency η_{statA}: 63.7 %
Efficiency: N_{actual} = 72.7 / N_{target} = 62**
EC controller integrated
*Rated data
**ErP 2015

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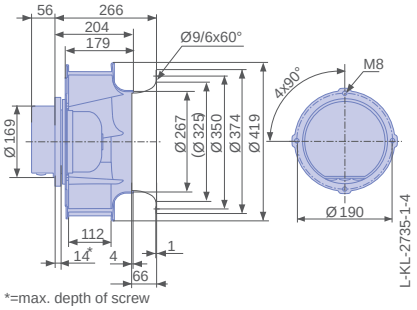
System components		Page 448

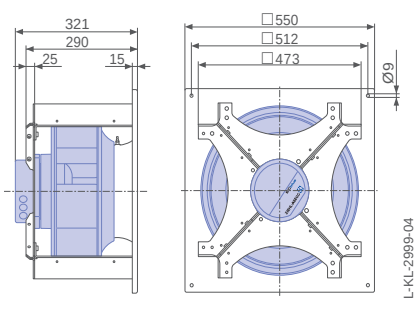
Dimensions [mm]

Free-running motor impeller RH in installation position H/Vu/Vo

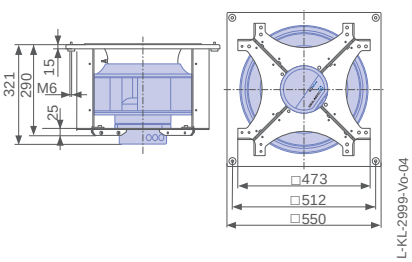


*=max. depth of screw

Ventilation unit GR in installation position H



Ventilation unit GR in installation position Vo

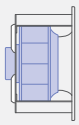
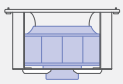


Performance data

Type	Characteristic curve	Speed n [min^{-1}]	Operating point	Current I [A]	Motor input power P_{sys} [W]	Suction side sound power level L_{WA5} [dB]
__40V-ZIK.DC.1R	I	2100	①	1.15	600	82
		2100	②	2.30	1350	75
		2100	③	1.80	1000	83
	II	1850	④	0.96	420	79
		1850	⑤	1.65	940	72
		1850	⑥	1.35	700	80
	III	1600	⑦	0.72	280	75
		1600	⑧	1.20	620	68
		1600	⑨	1.00	460	77
	IV	1350	⑩	0.50	180	70
		1350	⑪	0.94	380	65
		1350	⑫	0.76	290	73
	V	1100	⑬	0.35	110	64
		1100	⑭	0.58	220	61
		1100	⑮	0.48	170	69

Current values determined at 400V

Fan ordering information

Design	RH*	GR**	GR**	GR**
Installation position	H/Vu/Vo	H	Vo	Vu
				
Type	**RH40V-ZIK.DC.1R**	**GR40V-ZIK.DC.1R**	**GR40V-ZIK.DC.1R**	**GR40V-ZIK.DC.1R**
Basic electronics				
Article no.	**113469**	**114956/H01**	**114956/O01**	**114956/U01**
Premium electronics				
Article no.	**113498**			
Weight [kg]	10.00	25.00	25.00	25.00

* Inlet ring not included

** Inlet ring integrated

Control technology

Control module	Operating terminal	Expansion module
		
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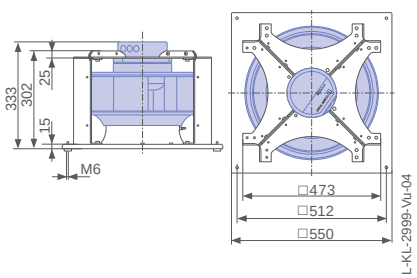
Ventilation unit GR in installation position Vu



Vpro-EC blue

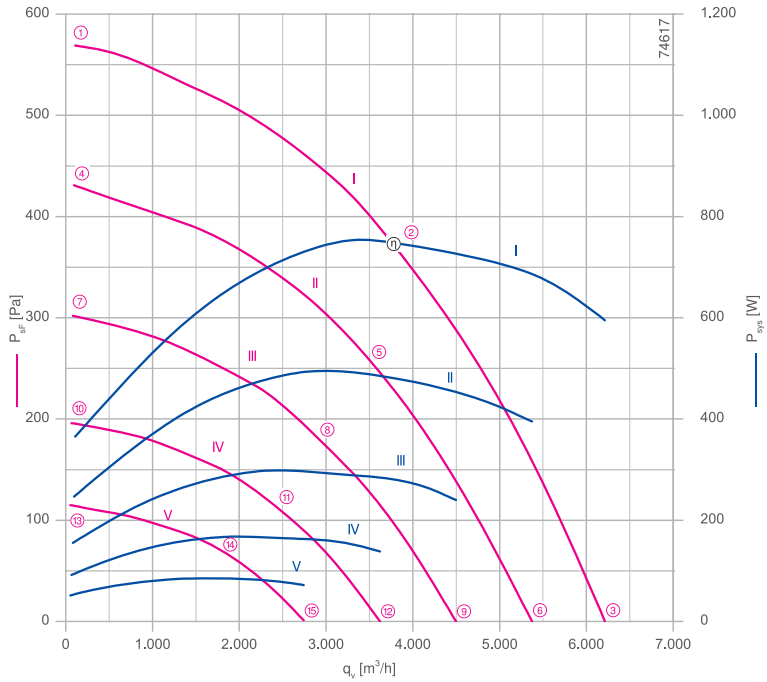
for single phase alternating current, 200-277 V

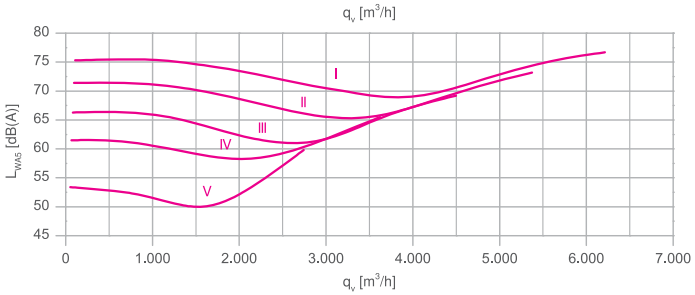
RH45V-ZIK

Description

Motor technology: EC
Rated voltage U: **1~200-277 V***
Rated frequency f: **50/60 Hz***
Motor input power P: **0.76 kW***
Rated current I: **3.90-2.80 A***
Rated speed n: **1440 min^{-1}***
Thermal class: **THCL155***
Min. permitted ambient temperature t_R: -15 °C
Max. permitted ambient temperature t_R at n_{max}: 60 °C
Electrical connection: integrated Controller
Number of blades : 6
Balancing quality: G 6.3
Protection class: IP54
Motor protection: Integrated active temperature management
Impeller : High Performance Composite Material, uncoated, black
Conformity: ErP 2015, CE
ErP-data
Efficiency η_{statA}: 53.5 %
Efficiency: N_{actual} = 70.5 / N_{target} = 62**
EC controller integrated
*Rated data
**ErP 2015

Characteristic curve





measured with inlet ring, without guard grille according to ISO 5801

Inlet ring	00275571	Page 450
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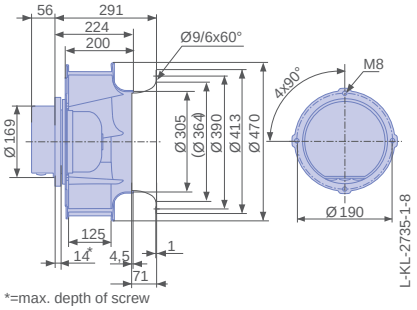
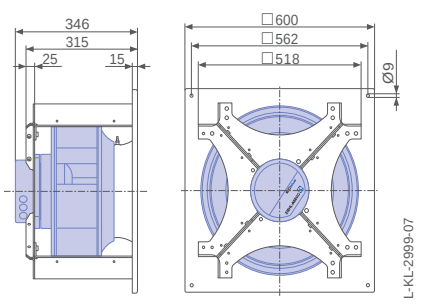
Dimensions [mm]

Free-running motor impeller RH in installation position H/Vu/Vo

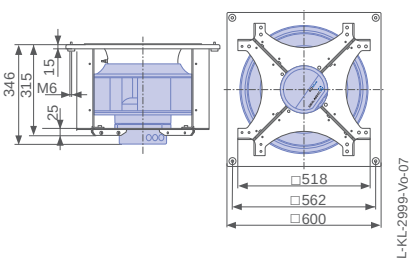


*=max. depth of screw

Ventilation unit GR in installation position H



Ventilation unit GR in installation position Vo

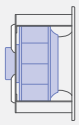
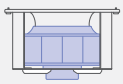


Performance data

Type	Characteristic curve	Speed n [min^{-1}]	Operating point	Current I [A]	Motor input power P_{sys} [W]	Suction side sound power level L_{WA5} [dB]
__45V-ZIK.DC.1R	I	1440	①	1.70	370	75
		1440	②	3.40	760	70
		1440	③	2.70	600	77
	II	1250	④	1.10	250	71
		1250	⑤	2.30	500	66
		1250	⑥	1.85	400	73
	III	1050	⑦	0.72	160	66
		1050	⑧	1.40	300	61
		1050	⑨	1.10	240	69
	IV	850	⑩	0.48	90	62
		850	⑪	0.78	170	58
		850	⑫	0.66	140	66
	V	650	⑬	0.33	50	53
		650	⑭	0.46	85	50
		650	⑮	0.40	70	60

Current values determined at 230V

Fan ordering information

Design	RH*	GR**	GR**	GR**
Installation position	H/Vu/Vo	H	Vo	Vu
				
Type	**RH45V-ZIK.DC.1R**	**GR45V-ZIK.DC.1R**	**GR45V-ZIK.DC.1R**	**GR45V-ZIK.DC.1R**
Basic electronics				
Article no.	**113475**	**114957/H01**	**114957/O01**	**114957/U01**
Premium electronics				
Article no.	**113504**			
Weight [kg]	11.00	28.00	28.00	28.00

* Inlet ring not included

** Inlet ring integrated

Control technology

Control module	Operating terminal	Expansion module
		
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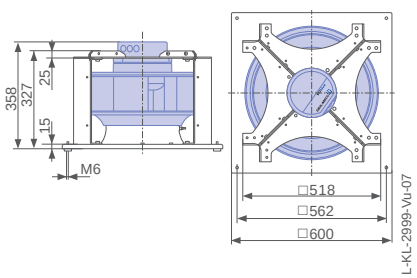
Ventilation unit GR in installation position Vu

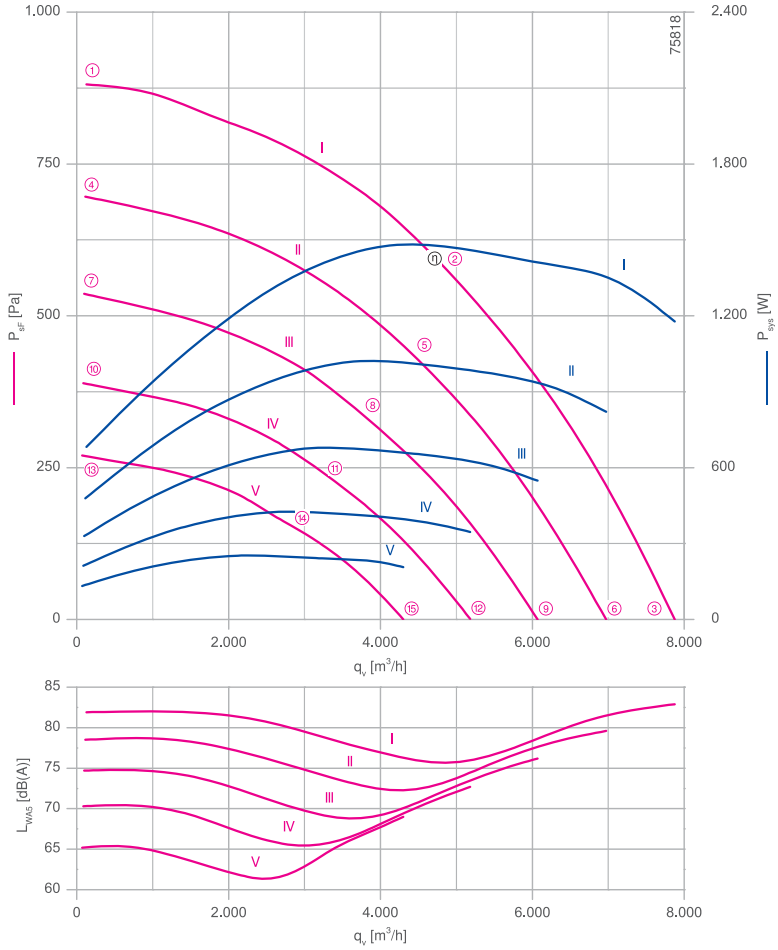


Vpro-EC blue

for three phase alternating current, 200-240 V

RH45V-ZIK

Characteristic curve



measured with inlet ring, without guard grille according to ISO 5801

Description

Motor technology: EC
Rated voltage U: **3~200-240 V***
Rated frequency f: **50/60 Hz***
Motor input power P: **1.50 kW***
Rated current I: **4.60-3.90 A***
Rated speed n: **1800 min^{-1}***
Thermal class: **THCL155***
Min. permitted conveyor temperature t_R: -15 °C
Max. permitted conveyor temperature t_R at n_{max}: 60 °C
Electrical connection: integrated Controller
Number of blades : 6
Balancing quality: G 6.3
Protection class: IP54
Motor protection: Integrated active temperature management
Impeller : High Performance Composite Material, uncoated, black
Conformity: ErP 2015, CE
ErP-data
Efficiency η_{statA}: 54.2 %
Efficiency: N_{actual} = 67.0 / N_{target} = 62**
EC controller integrated
*Rated data
**ErP 2015

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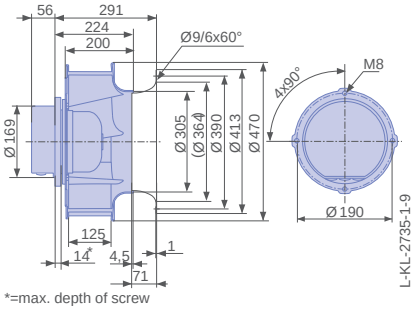
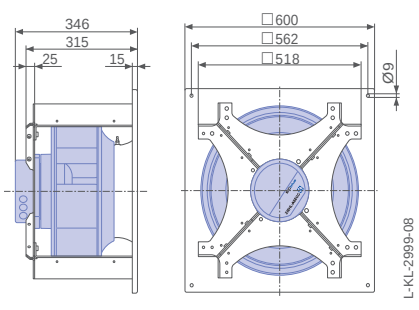
Dimensions [mm]

Free-running motor impeller RH in installation position H/Vu/Vo

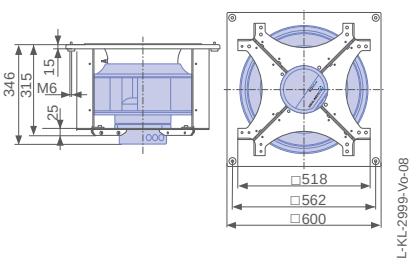


*=max. depth of screw

Ventilation unit GR in installation position H



Ventilation unit GR in installation position Vo

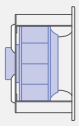
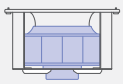


Performance data

Type	Characteristic curve	Speed n [min^{-1}]	Operating point	Current I [A]	Motor input power P_{sys} [W]	Suction side sound power level L_{WA5} [dB]
__45V-ZIK.DC.1R	I	1800	①	1.85	680	82
		1800	②	4.00	1500	76
		1800	③	3.20	1200	83
	II	1600	④	1.35	480	79
		1600	⑤	2.80	1000	73
		1600	⑥	2.20	820	80
	III	1400	⑦	0.94	330	75
		1400	⑧	1.85	680	70
		1400	⑨	1.55	540	76
	IV	1200	⑩	0.66	210	70
		1200	⑪	1.20	420	66
		1200	⑫	1.00	350	73
	V	1000	⑬	0.46	130	65
		1000	⑭	0.76	250	62
		1000	⑮	0.64	210	69

Current values determined at 230V

Fan ordering information

Design	RH*	GR**	GR**	GR**
Installation position	H/Vu/Vo	H	Vo	Vu
				
Type	**RH45V-ZIK.DC.1R**	**GR45V-ZIK.DC.1R**	**GR45V-ZIK.DC.1R**	**GR45V-ZIK.DC.1R**
Basic electronics				
Article no.	**113539**	**114958/H01**	**114958/O01**	**114958/U01**
Premium electronics				
Article no.	**113540**			
Weight [kg]	11.00	28.00	28.00	28.00

* Inlet ring not included

** Inlet ring integrated

Control technology

Control module	Operating terminal	Expansion module
		
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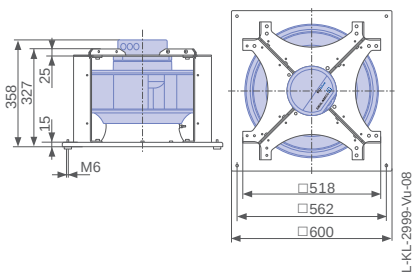
Ventilation unit GR in installation position Vu



Vpro-EC blue

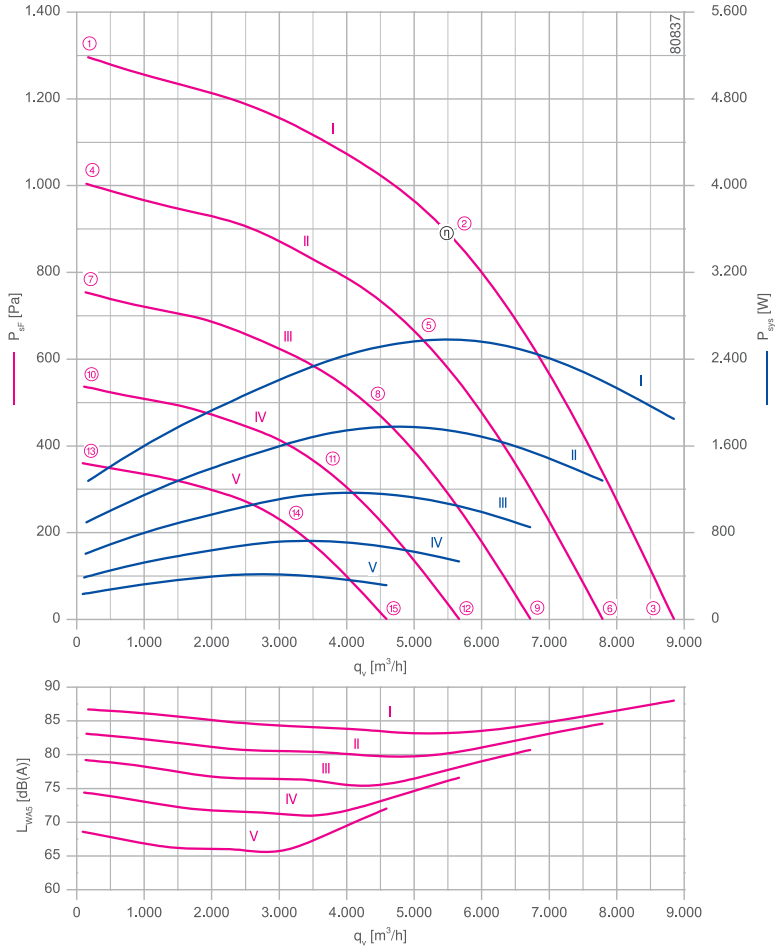
for three phase alternating current, 200-240 V

RH45V-ZIK

Description

Motor technology: EC
Rated voltage U: **3~200-240 V***
Rated frequency f: **50/60 Hz***
Motor input power P: **2.60 kW***
Rated current I: **8.00-6.70 A***
Rated speed n: **2120 min^{-1}***
Thermal class: **THCL155***
Min. permitted ambient temperature t_R: -15 °C
Max. permitted ambient temperature t_R at n_{max}: 60 °C
Electrical connection: integrated Controller
Number of blades : 6
Balancing quality: G 6.3
Protection class: IP54
Motor protection: Integrated active temperature management
Impeller : High Performance Composite Material, uncoated, black
Conformity: ErP 2015, CE
ErP-data
Efficiency η_{statA}: 57.2 %
Efficiency: N_{actual} = 63.4 / N_{target} = 62**
EC controller integrated
*Rated data
**ErP 2015

Characteristic curve

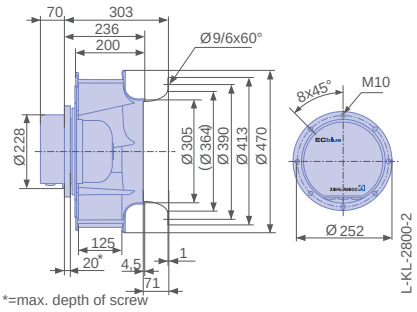


measured with inlet ring, without guard grille according to ISO 5801

Inlet ring	00275571	Page 450
Connection diagram	1360-401	Page 548
System components		Page 448

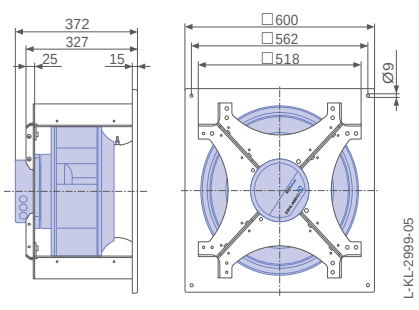
Dimensions [mm]

Free-running motor impeller RH in installation position H/Vu/Vo

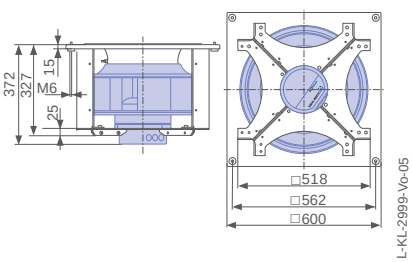


*=max. depth of screw

Ventilation unit GR in installation position H



Ventilation unit GR in installation position Vo

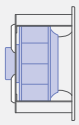
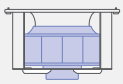


Performance data

Type	Characteristic curve	Speed n [min^{-1}]	Operating point	Current I [A]	Motor input power P_{sys} [W]	Suction side sound power level L_{WA5} [dB]
__45V-ZIK.GG.1R	I	2120	①	3.50	1300	87
		2120	②	7.00	2600	83
		2120	③	5.00	1850	88
	II	1870	④	2.40	900	83
		1870	⑤	4.80	1750	80
		1870	⑥	3.50	1300	85
	III	1620	⑦	1.65	600	79
		1620	⑧	3.10	1150	75
		1620	⑨	2.30	860	81
	IV	1370	⑩	1.10	390	74
		1370	⑪	1.95	720	71
		1370	⑫	1.45	540	77
	V	1120	⑬	0.68	230	69
		1120	⑭	1.15	420	66
		1120	⑮	0.88	320	72

Current values determined at 230V

Fan ordering information

Design	RH*	GR**	GR**	GR**
Installation position	H/Vu/Vo	H	Vo	Vu
				
Type	**RH45V-ZIK.GG.1R**	**GR45V-ZIK.GG.1R**	**GR45V-ZIK.GG.1R**	**GR45V-ZIK.GG.1R**
Basic electronics				
Article no.	**113932**	**114960/H01**	**114960/O01**	**114960/U01**
Premium electronics				
Article no.	**113933**			
Weight [kg]	20.00	37.00	38.00	38.00

* Inlet ring not included

** Inlet ring integrated

Control technology

Control module	Operating terminal	Expansion module
		
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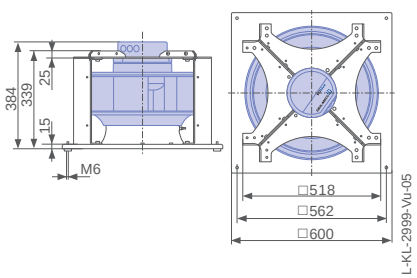
Ventilation unit GR in installation position Vu

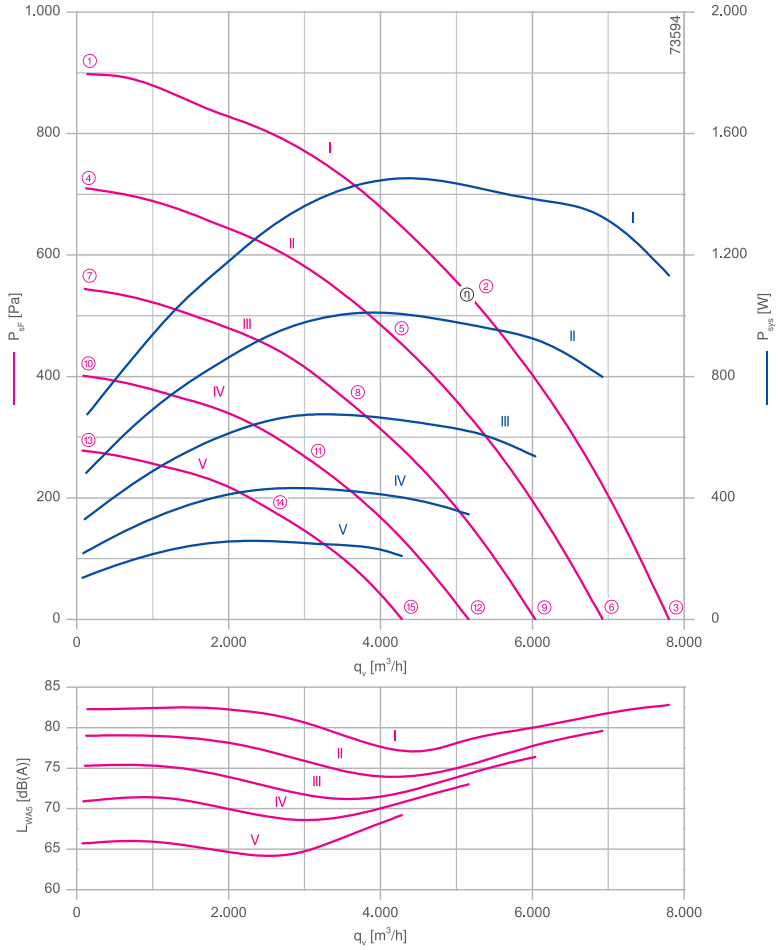


Vpro-EC blue

for three phase alternating current, 380-480 V

RH45V-ZIK

Characteristic curve



measured with inlet ring, without guard grille according to ISO 5801

Description

Motor technology: EC
Rated voltage U: **3~380-480 V***
Rated frequency f: **50/60 Hz***
Motor input power P: **1.45 kW***
Rated current I: **2.50-2.00 A***
Rated speed n: **1800 min^{-1}***
Thermal class: **THCL155***
Min. permitted ambient temperature t_R: -15 °C
Max. permitted ambient temperature t_R at n_{max}: 60 °C
Electrical connection: integrated Controller
Number of blades : 6
Balancing quality: G 6.3
Protection class: IP54
Motor protection: Integrated active temperature management
Impeller : High Performance Composite Material, uncoated, black
Conformity: ErP 2015, CE
ErP-data
Efficiency η_{statA}: 55.0 %
Efficiency: N_{actual} = 68.2 / N_{target} = 62**
EC controller integrated
*Rated data
**ErP 2015

Inlet ring	00275571	Page 450
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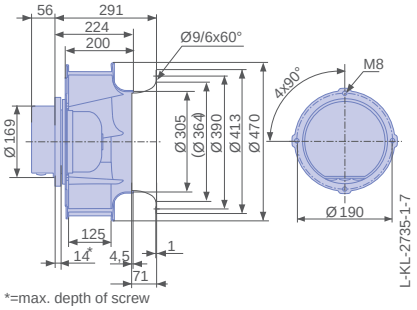
System components		Page 448

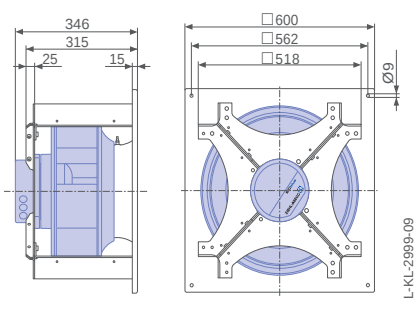
Dimensions [mm]

Free-running motor impeller RH in installation position H/Vu/Vo

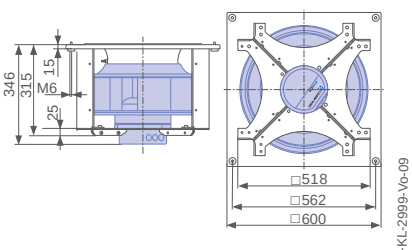


*=max. depth of screw

Ventilation unit GR in installation position H



Ventilation unit GR in installation position Vo

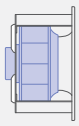
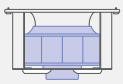


Performance data

Type	Characteristic curve	Speed n [min^{-1}]	Operating point	Current I [A]	Motor input power P_{sys} [W]	Suction side sound power level L_{WA5} [dB]
__45V-ZIK.DC.1R	I	1800	①	1.25	680	82
		1800	②	2.30	1450	77
		1800	③	1.90	1150	83
	II	1600	④	1.00	480	79
		1600	⑤	1.75	1000	74
		1600	⑥	1.45	800	80
	III	1400	⑦	0.82	330	75
		1400	⑧	1.30	680	71
		1400	⑨	1.10	540	76
	IV	1200	⑩	0.60	220	71
		1200	⑪	0.98	440	69
		1200	⑫	0.86	350	73
	V	1000	⑬	0.40	140	66
		1000	⑭	0.68	260	64
		1000	⑮	0.58	210	69

Current values determined at 400V

Fan ordering information

Design	RH*	GR**	GR**	GR**
Installation position	H/Vu/Vo	H	Vo	Vu
				
Type	**RH45V-ZIK.DC.1R**	**GR45V-ZIK.DC.1R**	**GR45V-ZIK.DC.1R**	**GR45V-ZIK.DC.1R**
Basic electronics				
Article no.	**113473**	**114959/H01**	**114959/O01**	**114959/U01**
Premium electronics				
Article no.	**113502**			
Weight [kg]	11.00	28.00	28.00	28.00

* Inlet ring not included

** Inlet ring integrated

Control technology

Control module	Operating terminal	Expansion module
		
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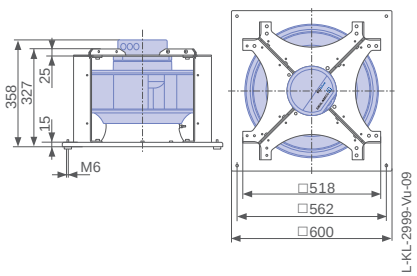
Ventilation unit GR in installation position Vu

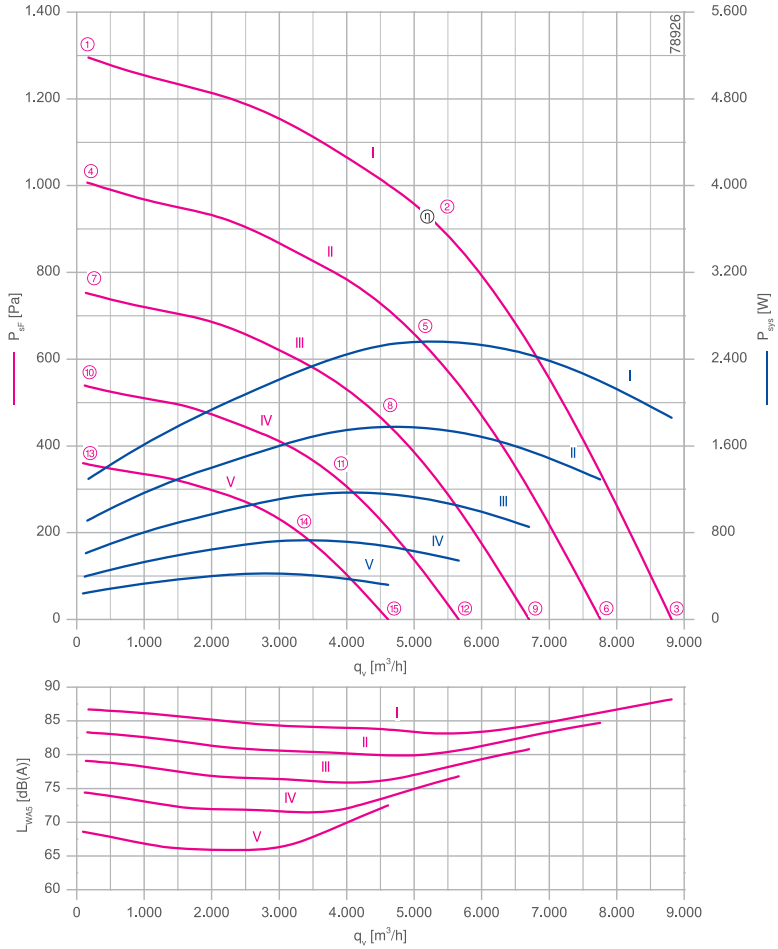


Vpro-EC blue

for three phase alternating current, 380-480 V

RH45V-ZIK

Characteristic curve



measured with inlet ring, without guard grille according to ISO 5801

Description

Motor technology: EC
Rated voltage U: **3~380-480 V***
Rated frequency f: **50/60 Hz***
Motor input power P: **2.60 kW***
Rated current I: **4.20-3.30 A***
Rated speed n: **2120 min^{-1}***
Thermal class: **THCL155***
Min. permitted conveyor temperature t_R: -15 °C
Max. permitted conveyor temperature t_R at n_{max}: 60 °C
Electrical connection: integrated Controller
Number of blades : 6
Balancing quality: G 6.3
Protection class: IP54
Motor protection: Integrated active temperature management
Impeller : High Performance Composite Material, uncoated, black
Conformity: ErP 2015, CE
ErP-data
Efficiency η_{statA}: 57.0 %
Efficiency: N_{actual} = 63.2 / N_{target} = 62**
EC controller integrated
*Rated data
**ErP 2015

Inlet ring	00275571	Page 450
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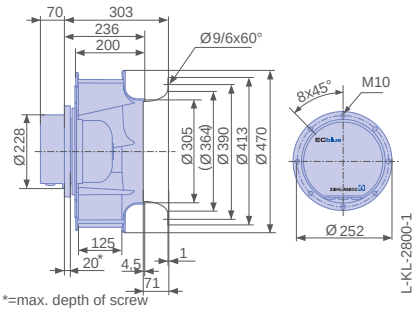
System components		Page 448

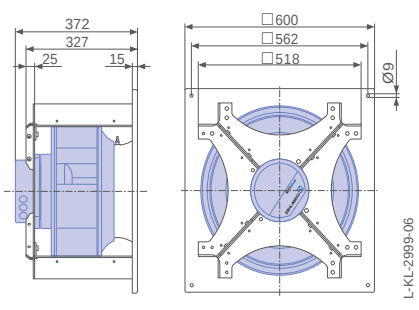
Dimensions [mm]

Free-running motor impeller RH in installation position H/Vu/Vo

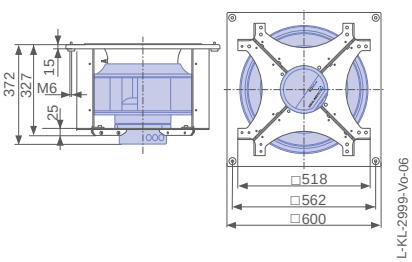


*=max. depth of screw

Ventilation unit GR in installation position H



Ventilation unit GR in installation position Vo

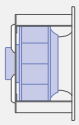
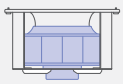


Performance data

Type	Characteristic curve	Speed n [min^{-1}]	Operating point	Current I [A]	Motor input power P_{sys} [W]	Suction side sound power level L_{WA5} [dB]
__45V-ZIK.GG.1R	I	2120	①	2.10	1300	87
		2120	②	4.00	2600	83
		2120	③	2.90	1850	88
	II	1870	④	1.55	920	83
		1870	⑤	2.80	1750	80
		1870	⑥	2.10	1300	85
	III	1620	⑦	1.15	620	79
		1620	⑧	1.95	1150	76
		1620	⑨	1.50	860	81
	IV	1370	⑩	0.90	400	74
		1370	⑪	1.35	720	72
		1370	⑫	1.10	540	77
	V	1120	⑬	0.64	240	69
		1120	⑭	0.96	420	66
		1120	⑮	0.82	320	73

Current values determined at 400V

Fan ordering information

Design	RH*	GR**	GR**	GR**
Installation position	H/Vu/Vo	H	Vo	Vu
				
Type	**RH45V-ZIK.GG.1R**	**GR45V-ZIK.GG.1R**	**GR45V-ZIK.GG.1R**	**GR45V-ZIK.GG.1R**
Basic electronics				
Article no.	**113930**	**114961/H01**	**114961/O01**	**114961/U01**
Premium electronics				
Article no.	**113931**			
Weight [kg]	20.00	37.00	38.00	38.00

* Inlet ring not included

** Inlet ring integrated

Control technology

Control module	Operating terminal	Expansion module
		
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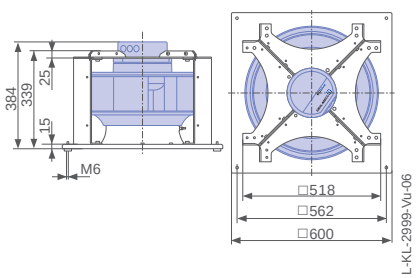
Ventilation unit GR in installation position Vu

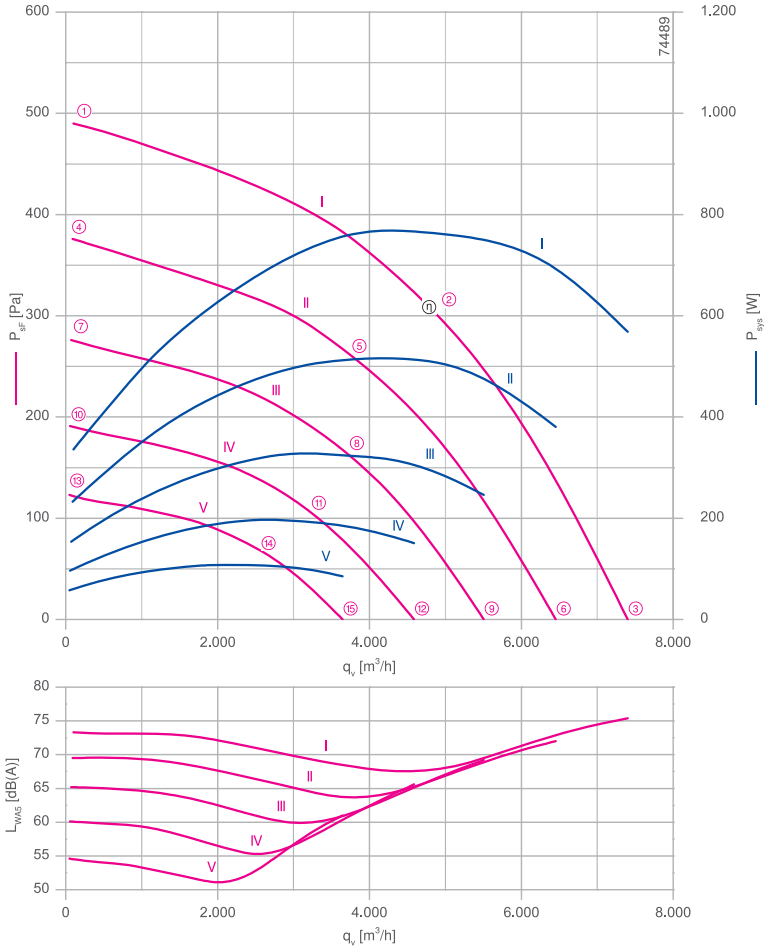


Vpro-EC blue

for single phase alternating current, 200-277 V

RH50V-ZIK

Characteristic curve



measured with inlet ring, without guard grille according to ISO 5801

Description

Motor technology: EC
Rated voltage U: **1~200-277 V***
Rated frequency f: **50/60 Hz***
Motor input power P: **0.76 kW***
Rated current I: **3.90-2.80 A***
Rated speed n: **1200 min^{-1}***
Thermal class: **THCL155***
Min. permitted ambient temperature t_R: -15 °C
Max. permitted ambient temperature t_R at n_{max}: 60 °C
Electrical connection: integrated Controller
Number of blades : 6
Balancing quality: G 6.3
Protection class: IP54
Motor protection: Integrated active temperature management
Impeller : High Performance Composite Material, uncoated, black
Conformity: ErP 2015, CE
ErP-data
Efficiency η_{statA}: 55.0 %
Efficiency: N_{actual} = 72.1 / N_{target} = 62**
EC controller integrated
*Rated data
**ErP 2015

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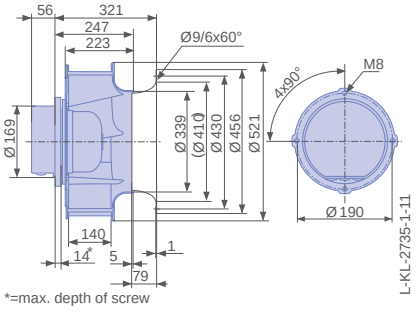
System components		Page 448

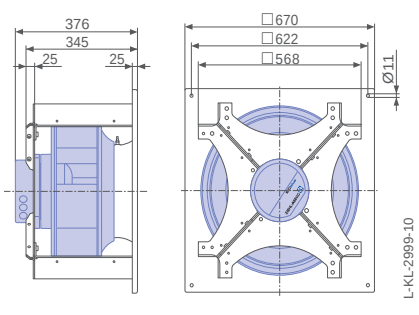
Dimensions [mm]

Free-running motor impeller RH
in installation position H/Vu/Vo

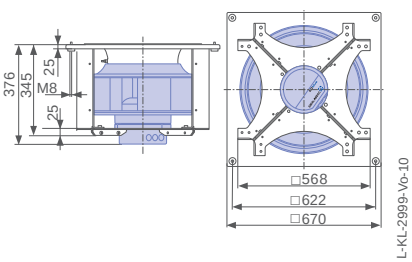


*=max. depth of screw

Ventilation unit GR in installation position H



Ventilation unit GR in installation position Vo

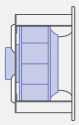
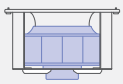


Performance data

Type	Characteristic curve	Speed n [min^{-1}]	Operating point	Current I [A]	Motor input power P_{sys} [W]	Suction side sound power level L_{WA5} [dB]
__50V-ZIK.DC.1R	I	1200	①	1.50	340	73
		1200	②	3.40	760	68
		1200	③	2.50	560	75
	II	1050	④	1.05	230	70
		1050	⑤	2.30	520	64
		1050	⑥	1.70	380	72
	III	900	⑦	0.70	150	65
		900	⑧	1.45	330	60
		900	⑨	1.10	250	69
	IV	750	⑩	0.48	95	60
		750	⑪	0.90	200	55
		750	⑫	0.70	150	66
	V	600	⑬	0.35	60	55
		600	⑭	0.52	110	51
		600	⑮	0.44	85	61

Current values determined at 230V

Fan ordering information

Design	RH*	GR**	GR**	GR**
Installation position	H/Vu/Vo	H	Vo	Vu
				
Type	**RH50V-ZIK.DC.1R**	**GR50V-ZIK.DC.1R**	**GR50V-ZIK.DC.1R**	**GR50V-ZIK.DC.1R**
Basic electronics				
Article no.	**113479**	**114962/H01**	**114962/O01**	**114962/U01**
Premium electronics				
Article no.	**113508**			
Weight [kg]	12.00	32.00	33.00	33.00

* Inlet ring not included

** Inlet ring integrated

Control technology

Control module	Operating terminal	Expansion module
		
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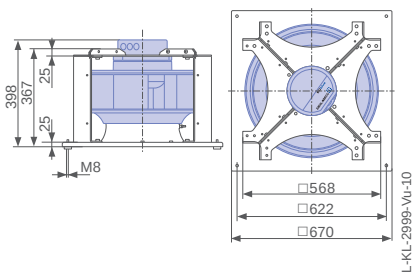
Ventilation unit GR in installation position Vu



Vpro-EC blue

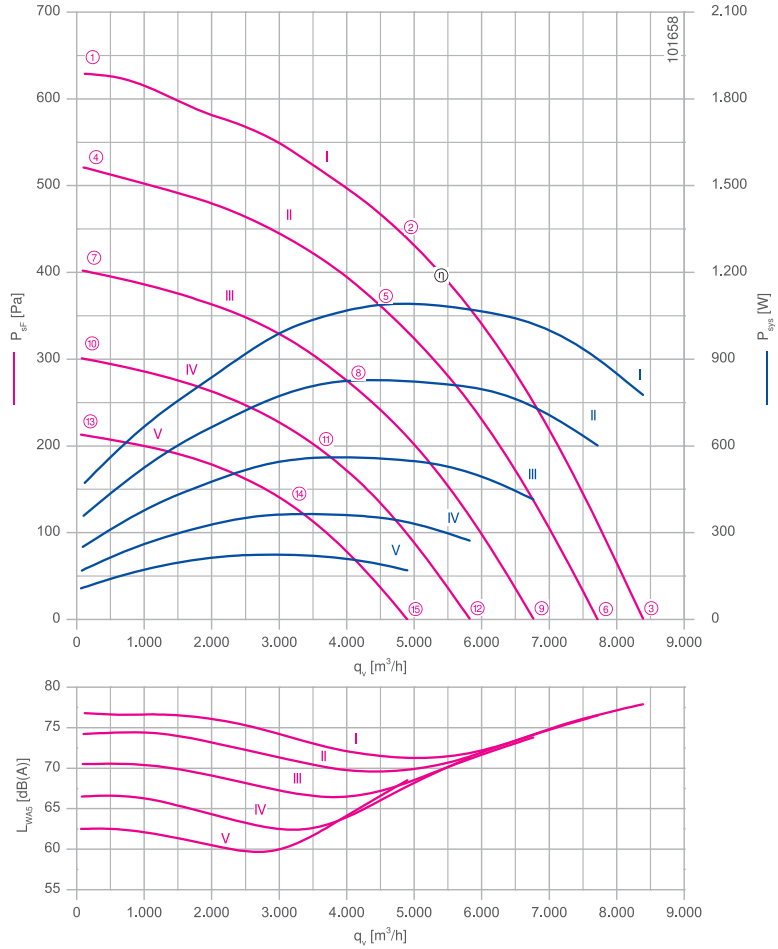
for three phase alternating current, 200-240 V

RH50V-ZIK

Description

Motor technology: EC
Rated voltage U: **3~200-240 V***
Rated frequency f: **50/60 Hz***
Motor input power P: **1.10 kW***
Rated current I: **3.40-2.80 A***
Rated speed n: **1360 min^{-1}***
Thermal class: **THCL155***
Min. permitted ambient temperature t_R: -15 °C
Max. permitted ambient temperature t_R at n_{max}: 60 °C
Electrical connection: integrated Controller
Number of blades : 6
Balancing quality: G 6.3
Protection class: IP54
Motor protection: Integrated active temperature management
Impeller : High Performance Composite Material, uncoated, black
Conformity: ErP 2015, CE
ErP-data
Efficiency η_{statA}: 56.9 %
Efficiency: N_{actual} = 72.0 / N_{target} = 62**
EC controller integrated
*Rated data
**ErP 2015

Characteristic curve

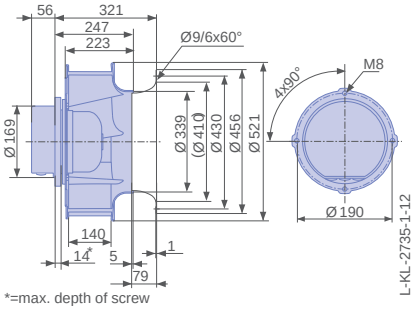


measured with inlet ring, without guard grille according to ISO 5801

Inlet ring	00275572	Page 450
Connection diagram	1360-401	Page 548
System components		Page 448

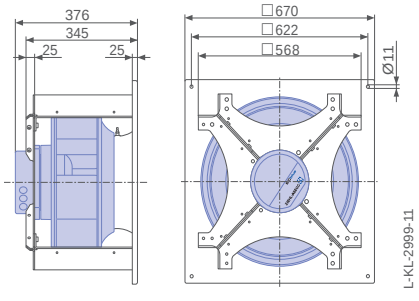
Dimensions [mm]

Free-running motor impeller RH in installation position H/Vu/Vo

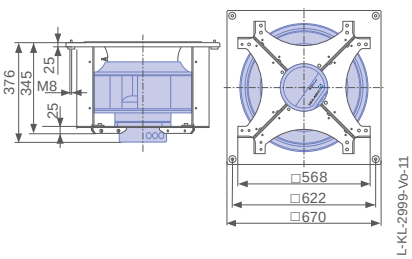


*=max. depth of screw

Ventilation unit GR in installation position H



Ventilation unit GR in installation position Vo

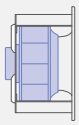
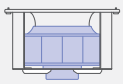


Performance data

Type	Characteristic curve	Speed n [min^{-1}]	Operating point	Current I [A]	Motor input power P_{sys} [W]	Suction side sound power level L_{WA5} [dB]
RH50V-ZIK.DC-1R	I	1360	①	1.30	480	77
		1360	②	2.90	1100	71
		1360	③	2.10	780	78
	II	1250	④	1.00	360	74
		1250	⑤	2.20	820	70
		1250	⑥	1.60	600	77
	III	1100	⑦	0.74	250	71
		1100	⑧	1.50	560	67
		1100	⑨	1.15	420	74
	IV	950	⑩	0.54	170	67
		950	⑪	1.00	360	63
		950	⑫	0.78	270	71
	V	800	⑬	0.42	110	63
		800	⑭	0.68	220	60
		800	⑮	0.54	170	69

Current values determined at 230V

Fan ordering information

Design	RH*	GR**	GR**	GR**
Installation position	H/Vu/Vo	H	Vo	Vu
				
Type	**RH50V-ZIK.DC.1R**	**GR50V-ZIK.DC.1R**	**GR50V-ZIK.DC.1R**	**GR50V-ZIK.DC.1R**
Basic electronics				
Article no.	**113543**	**114963/H01**	**114963/O01**	**114963/U01**
Premium electronics				
Article no.	**113544**			
Weight [kg]	11.40	38.50	33.00	33.00

* Inlet ring not included

** Inlet ring integrated

Control technology

Control module	Operating terminal	Expansion module
		
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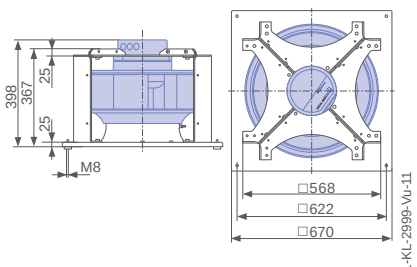
Ventilation unit GR in installation position Vu

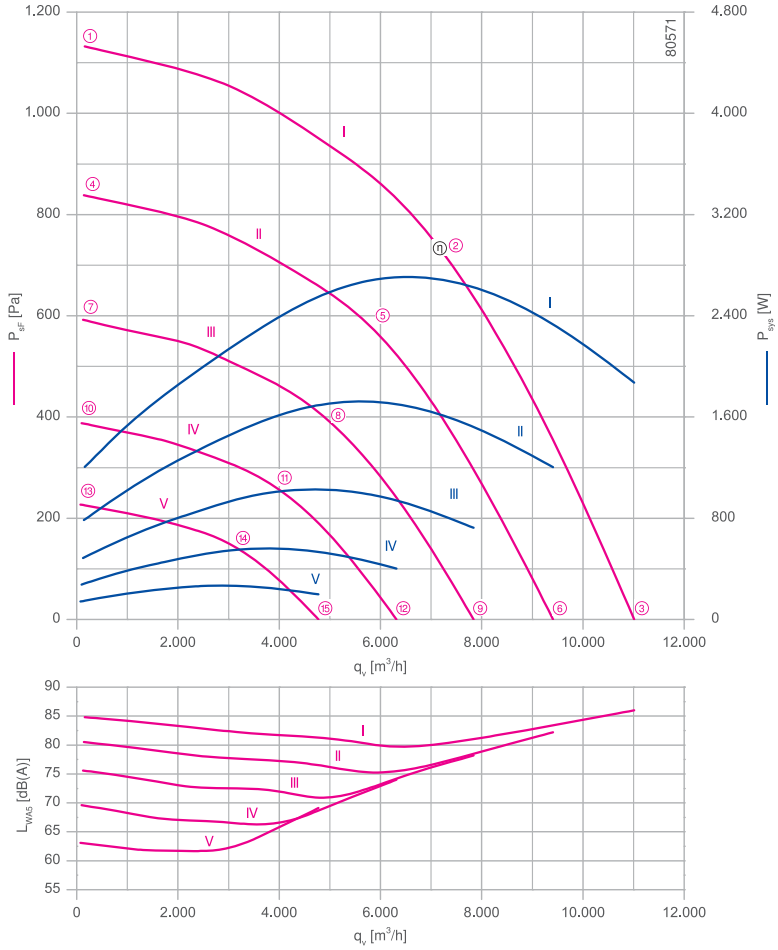


Vpro-EC blue

for three phase alternating current, 200-240 V

RH50V-ZIK

Characteristic curve



measured with inlet ring, without guard grille according to ISO 5801

Description

Motor technology: EC
Rated voltage U: **3~200-240 V***
Rated frequency f: **50/60 Hz***
Motor input power P: **2.70 kW***
Rated current I: **8.20-6.80 A***
Rated speed n: **1800 min^{-1}***
Thermal class: **THCL155***
Min. permitted ambient temperature t_R: -15 °C
Max. permitted ambient temperature t_R at n_{max}: 60 °C
Electrical connection: integrated Controller
Number of blades : 6
Balancing quality: G 6.3
Protection class: IP54
Motor protection: Integrated active temperature management
Impeller : High Performance Composite Material, uncoated, black
Conformity: ErP 2015, CE
ErP-data
Efficiency η_{statA}: 59.0 %
Efficiency: N_{actual} = 65.0 / N_{target} = 62**
EC controller integrated
*Rated data
**ErP 2015

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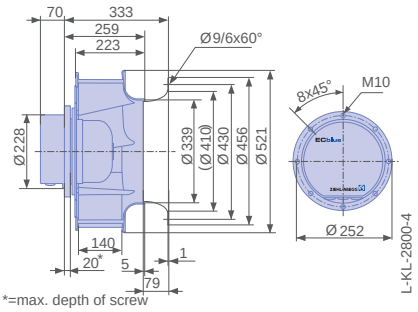
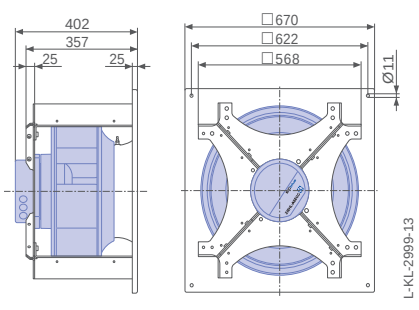
Dimensions [mm]

Free-running motor impeller RH in installation position H/Vu/Vo

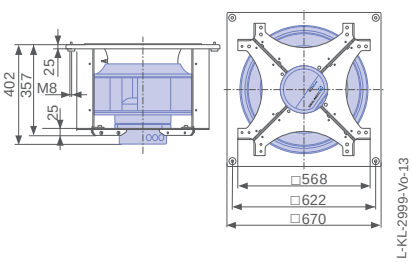


*=max. depth of screw

Ventilation unit GR in installation position H



Ventilation unit GR in installation position Vo

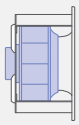
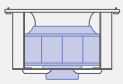


Performance data

Type	Characteristic curve	Speed n [min^{-1}]	Operating point	Current I [A]	Motor input power P_{sys} [W]	Suction side sound power level L_{WA5} [dB]
__50V-ZIK.GG.1R	I	1800	①	3.20	1200	85
		1800	②	7.20	2700	80
		1800	③	5.00	1850	86
	II	1550	④	2.10	780	81
		1550	⑤	4.60	1700	75
		1550	⑥	3.20	1200	82
	III	1300	⑦	1.35	480	76
		1300	⑧	2.70	1050	71
		1300	⑨	1.95	720	78
	IV	1050	⑩	0.82	280	70
		1050	⑪	1.50	560	67
		1050	⑫	1.10	400	74
	V	800	⑬	0.50	140	63
		800	⑭	0.80	270	62
		800	⑮	0.62	200	69

Current values determined at 230V

Fan ordering information

Design	RH*	GR**	GR**	GR**
Installation position	H/Vu/Vo	H	Vo	Vu
				
Type	**RH50V-ZIK.GG.1R**	**GR50V-ZIK.GG.1R**	**GR50V-ZIK.GG.1R**	**GR50V-ZIK.GG.1R**
Basic electronics				
Article no.	**113936**	**114965/H01**	**114965/O01**	**114965/U01**
Premium electronics				
Article no.	**113937**			
Weight [kg]	20.00	41.00	41.00	41.00

* Inlet ring not included

** Inlet ring integrated

Control technology

Control module	Operating terminal	Expansion module
		
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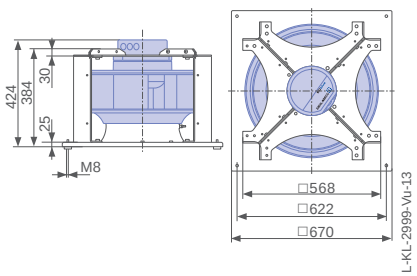
Ventilation unit GR in installation position Vu

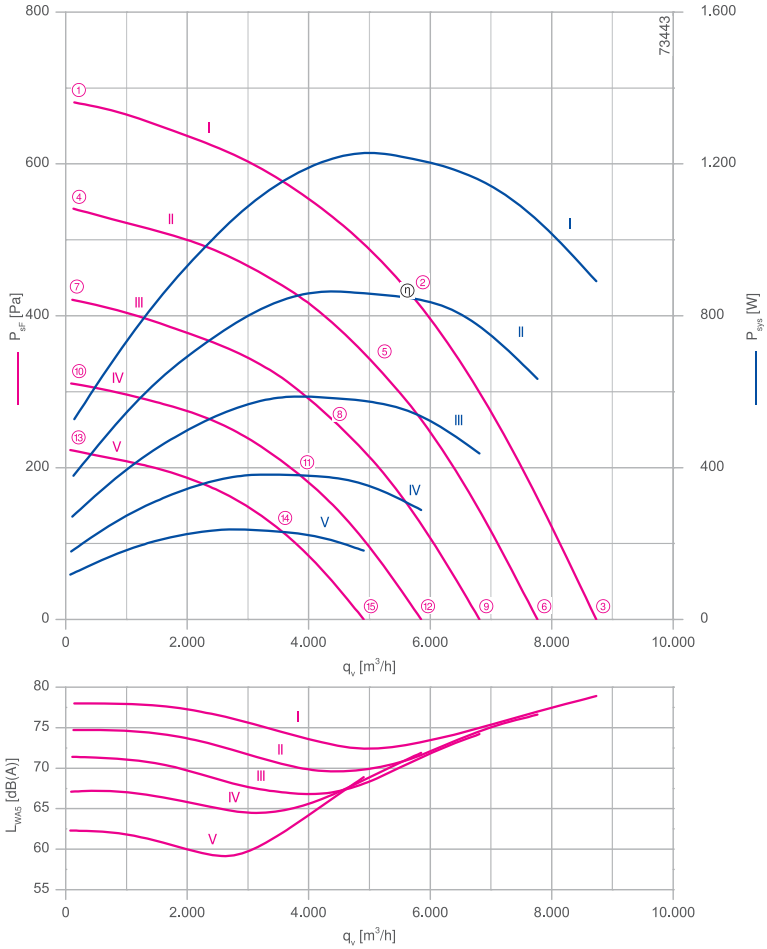


Vpro-EC blue

for three phase alternating current, 380-480 V

RH50V-ZIK

Characteristic curve



measured with inlet ring, without guard grille according to ISO 5801

Description

Motor technology: EC
Rated voltage U: **3~380-480 V***
Rated frequency f: **50/60 Hz***
Motor input power P: **1.25 kW***
Rated current I: **2.10-1.65 A***
Rated speed n: **1400 min^{-1}***
Thermal class: **THCL155***
Min. permitted ambient temperature t_R: -15 °C
Max. permitted ambient temperature t_R at n_{max}: 60 °C
Electrical connection: integrated Controller
Number of blades : 6
Balancing quality: G 6.3
Protection class: IP54
Motor protection: Integrated active temperature management
Impeller : High Performance Composite Material, uncoated, black
Conformity: ErP 2015, CE
ErP-data
Efficiency η_{statA}: 57.1 %
Efficiency: N_{actual} = 71.4 / N_{target} = 62**
EC controller integrated
*Rated data
**ErP 2015

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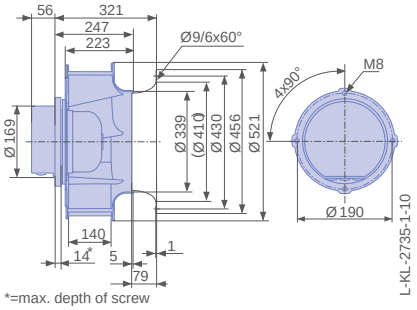
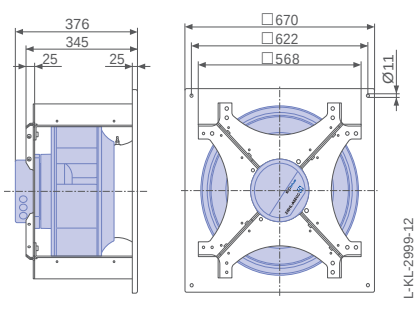
Dimensions [mm]

Free-running motor impeller RH in installation position H/Vu/Vo

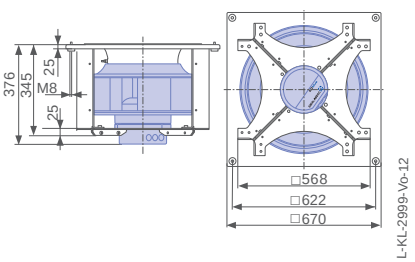


*=max. depth of screw

Ventilation unit GR in installation position H



Ventilation unit GR in installation position Vo

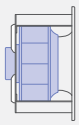
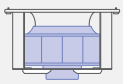


Performance data

Type	Characteristic curve	Speed n [min^{-1}]	Operating point	Current I [A]	Motor input power P_{sys} [W]	Suction side sound power level L_{WA5} [dB]
__50V-ZIK.DC.1R	I	1400	①	1.05	520	78
		1400	②	2.00	1250	72
		1400	③	1.55	900	79
	II	1250	④	0.88	380	75
		1250	⑤	1.55	860	70
		1250	⑥	1.20	640	77
	III	1100	⑦	0.70	270	71
		1100	⑧	1.15	580	67
		1100	⑨	0.96	440	74
	IV	950	⑩	0.50	180	67
		950	⑪	0.92	380	65
		950	⑫	0.76	290	72
	V	800	⑬	0.36	120	62
		800	⑭	0.64	240	59
		800	⑮	0.50	180	69

Current values determined at 400V

Fan ordering information

Design	RH*	GR**	GR**	GR**
Installation position	H/Vu/Vo	H	Vo	Vu
				
Type	**RH50V-ZIK.DC.1R**	**GR50V-ZIK.DC.1R**	**GR50V-ZIK.DC.1R**	**GR50V-ZIK.DC.1R**
Basic electronics				
Article no.	**113477**	**114964/H01**	**114964/O01**	**114964/U01**
Premium electronics				
Article no.	**113506**			
Weight [kg]	12.00	32.00	33.00	33.00

* Inlet ring not included

** Inlet ring integrated

Control technology

Control module	Operating terminal	Expansion module
		
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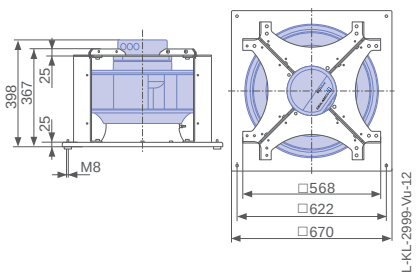
Ventilation unit GR in installation position Vu



Vpro-EC blue

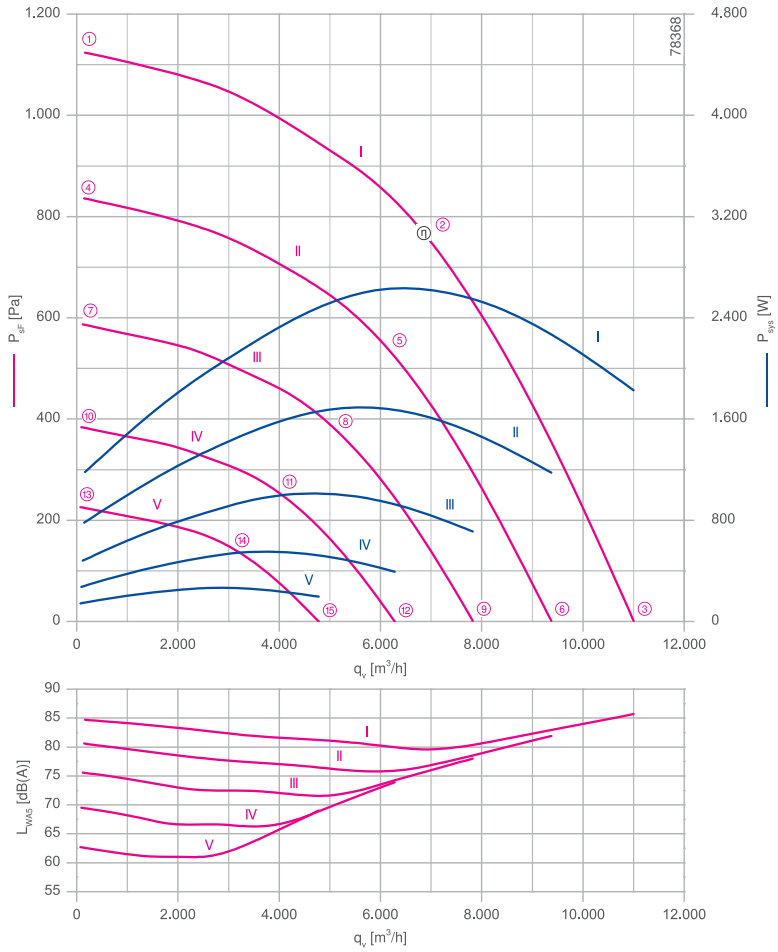
for three phase alternating current, 380-480 V

RH50V-ZIK

Description

Motor technology: EC
Rated voltage U: **3~380-480 V***
Rated frequency f: **50/60 Hz***
Motor input power P: **2.60 kW***
Rated current I: **4.30-3.40 A***
Rated speed n: **1800 min^{-1}***
Thermal class: **THCL155***
Min. permitted ambient temperature t_R: -15 °C
Max. permitted ambient temperature t_R at n_{max}: 60 °C
Electrical connection: integrated Controller
Number of blades : 6
Balancing quality: G 6.3
Protection class: IP54
Motor protection: Integrated active temperature management
Impeller : High Performance Composite Material, uncoated, black
Conformity: ErP 2015, CE
ErP-data
Efficiency η_{statA}: 60.5 %
Efficiency: N_{actual} = 66.6 / N_{target} = 62**
EC controller integrated
*Rated data
**ErP 2015

Characteristic curve



measured with inlet ring, without guard grille according to ISO 5801

Inlet ring	00275572	Page 450
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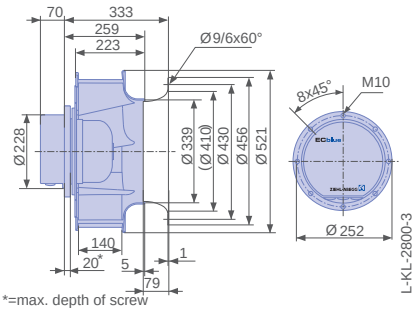
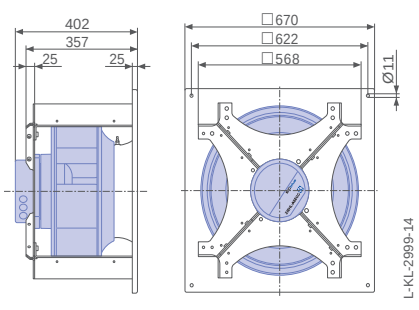
Dimensions [mm]

Free-running motor impeller RH in installation position H/Vu/Vo

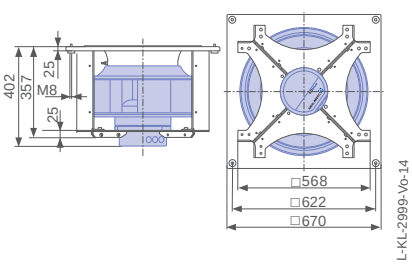


*=max. depth of screw

Ventilation unit GR in installation position H



Ventilation unit GR in installation position Vo

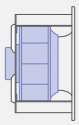
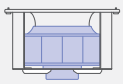


Performance data

Type	Characteristic curve	Speed n [min^{-1}]	Operating point	Current I [A]	Motor input power P_{sys} [W]	Suction side sound power level L_{WA5} [dB]
__50V-ZIK.GG.1R	I	1800	①	1.95	1200	85
		1800	②	4.00	2600	80
		1800	③	2.90	1850	86
	II	1550	④	1.35	780	81
		1550	⑤	2.70	1700	76
		1550	⑥	1.95	1200	82
	III	1300	⑦	0.96	480	76
		1300	⑧	1.70	1000	72
		1300	⑨	1.30	720	78
	IV	1050	⑩	0.70	270	70
		1050	⑪	1.10	540	67
		1050	⑫	0.88	390	74
	V	800	⑬	0.42	140	63
		800	⑭	0.70	260	62
		800	⑮	0.52	200	69

Current values determined at 400V

Fan ordering information

Design	RH*	GR**	GR**	GR**
Installation position	H/Vu/Vo	H	Vo	Vu
				
Type	**RH50V-ZIK.GG.1R**	**GR50V-ZIK.GG.1R**	**GR50V-ZIK.GG.1R**	**GR50V-ZIK.GG.1R**
Basic electronics				
Article no.	**113934**	**114966/H01**	**114966/O01**	**114966/U01**
Premium electronics				
Article no.	**113935**			
Weight [kg]	20.00	47.00	41.00	41.00

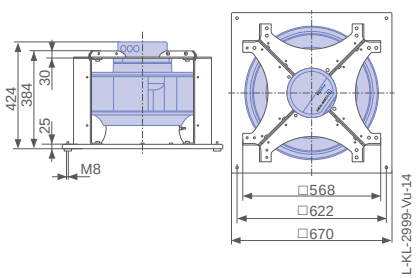
* Inlet ring not included

** Inlet ring integrated

Control technology

Control module	Operating terminal	Expansion module
		
Page 464	Page 476	Page 473

Ventilation unit GR in installation position Vu

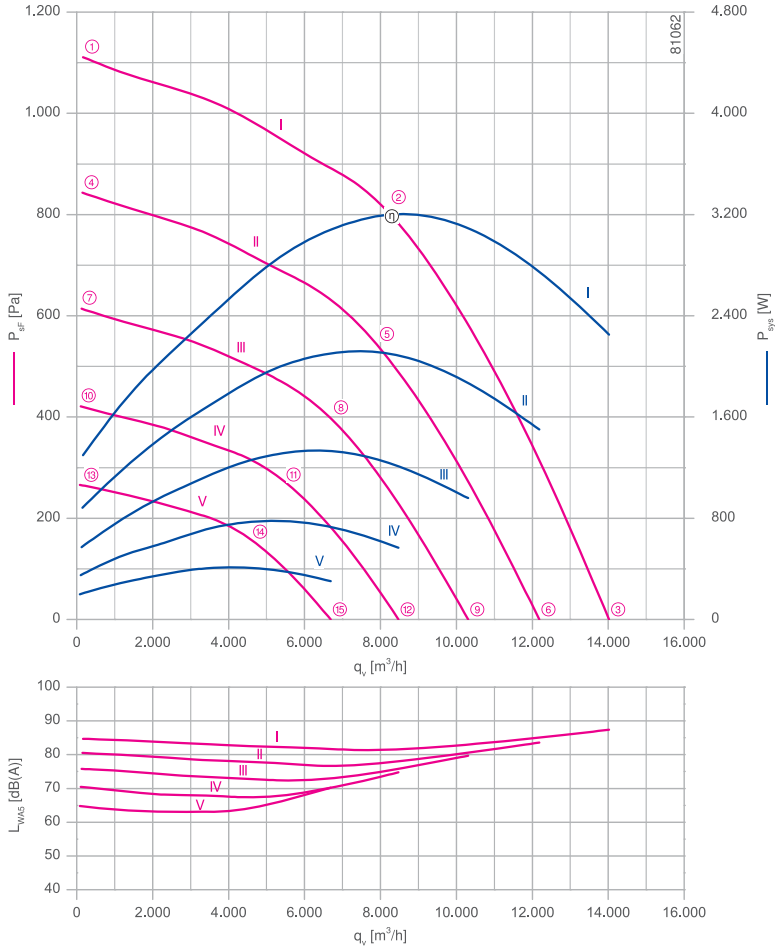


Vpro-EC blue

for three phase alternating current, 200-240 V

RH56V-ZIK

Characteristic curve



measured with inlet ring, without guard grille according to ISO 5801

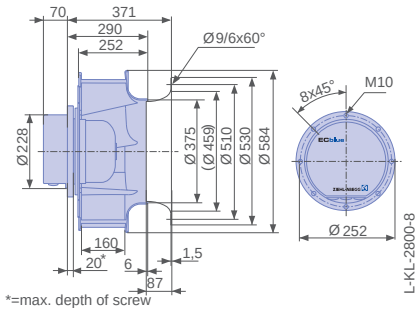
Description

Motor technology: EC
Rated voltage U: **3~200-240 V***
Rated frequency f: **50/60 Hz***
Motor input power P: **3.20 kW***
Rated current I: **9.60-8.00 A***
Rated speed n: **1570 min^{-1}***
Thermal class: **THCL155***
Min. permitted ambient temperature t_R: -15 °C
Max. permitted ambient temperature t_R at n_{max}: 60 °C
Electrical connection: integrated Controller
Number of blades : 6
Balancing quality: G 6.3
Protection class: IP54
Motor protection: Integrated active temperature management
Impeller : High Performance Composite Material, uncoated, black
Conformity: ErP 2015, CE
ErP-data
Efficiency η_{statA}: 61.9 %
Efficiency: N_{actual} = 67.1 / N_{target} = 62**
EC controller integrated
*Rated data
**ErP 2015

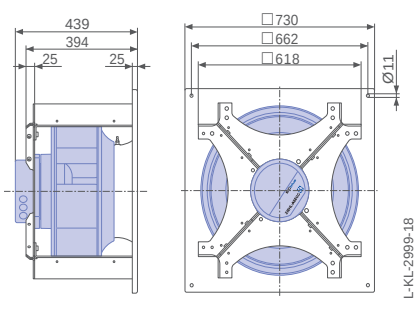
Inlet ring	00278489	Page 450
Connection diagram	1360-401	Page 548
System components		Page 448

Dimensions [mm]

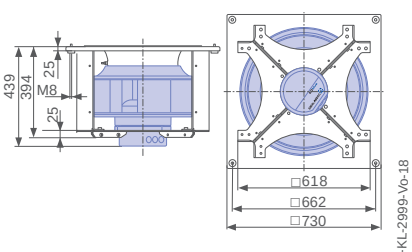
Free-running motor impeller RH in installation position H/Vu/Vo



Ventilation unit GR in installation position H



Ventilation unit GR in installation position Vo

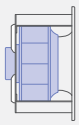
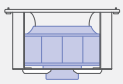


Performance data

Type	Characteristic curve	Speed n [min^{-1}]	Operating point	Current I [A]	Motor input power P_{sys} [W]	Suction side sound power level L_{WA5} [dB]
__56V-ZIK.GL.1R	I	1570	①	3.40	1300	85
		1570	②	8.40	3200	82
		1570	③	5.80	2300	87
	II	1370	④	2.30	880	81
		1370	⑤	5.60	2100	77
		1370	⑥	4.00	1500	84
	III	1170	⑦	1.55	580	76
		1170	⑧	3.50	1350	73
		1170	⑨	2.50	960	80
	IV	970	⑩	0.98	350	71
		970	⑪	2.10	780	68
		970	⑫	1.50	560	75
	V	770	⑬	0.60	200	65
		770	⑭	1.15	420	64
		770	⑮	0.86	300	70

Current values determined at 230V

Fan ordering information

Design	RH*	GR**	GR**	GR**
Installation position	H/Vu/Vo	H	Vo	Vu
				
Type	**RH56V-ZIK.GL.1R**	**GR56V-ZIK.GL.1R**	**GR56V-ZIK.GL.1R**	**GR56V-ZIK.GL.1R**
Basic electronics				
Article no.	**113956**	**114970/H01**	**114970/O01**	**114970/U01**
Premium electronics				
Article no.	**113957**			
Weight [kg]	26.00	55.00	56.00	56.00

* Inlet ring not included

** Inlet ring integrated

Control technology

Control module	Operating terminal	Expansion module
		
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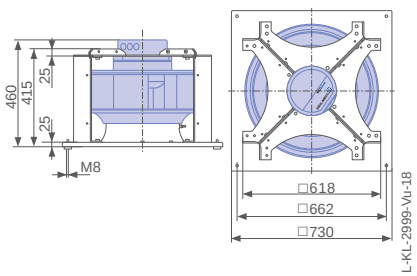
Ventilation unit GR in installation position Vu



Vpro-EC blue

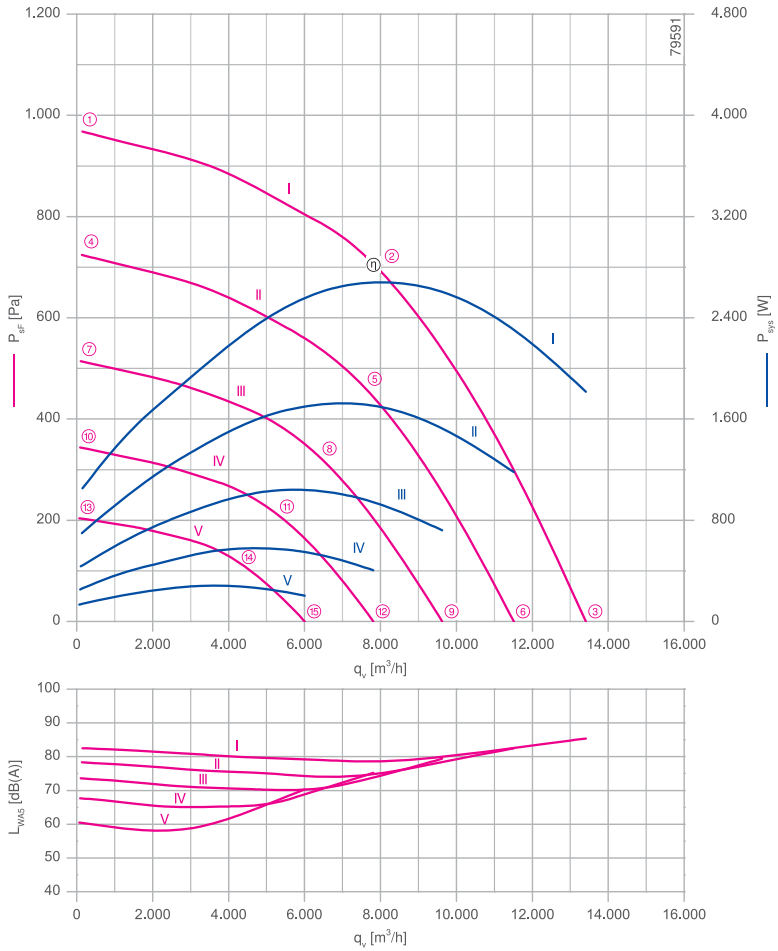
for three phase alternating current, 200-240 V

RH56V-ZIK

Description

Motor technology: EC
Rated voltage U: **3~200-240 V***
Rated frequency f: **50/60 Hz***
Motor input power P: **2.70 kW***
Rated current I: **8.40-7.00 A***
Rated speed n: **1480 min^{-1}***
Thermal class: **THCL155***
Min. permitted ambient temperature t_R: -15 °C
Max. permitted ambient temperature t_R at n_{max}: 60 °C
Electrical connection: integrated Controller
Number of blades : 6
Balancing quality: G 6.3
Protection class: IP54
Motor protection: Integrated active temperature management
Impeller : High Performance Composite Material, uncoated, black
Conformity: ErP 2015, CE
ErP-data
Efficiency η_{statA}: 62.0 %
Efficiency: N_{actual} = 68.0 / N_{target} = 62**
EC controller integrated
*Rated data
**ErP 2015

Characteristic curve

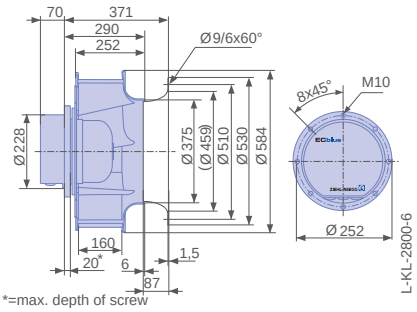


measured with inlet ring, without guard grille according to ISO 5801

Inlet ring	00278489	Page 450
Connection diagram	1360-401	Page 548
System components		Page 448

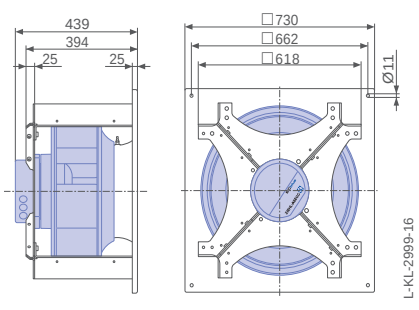
Dimensions [mm]

Free-running motor impeller RH in installation position H/Vu/Vo

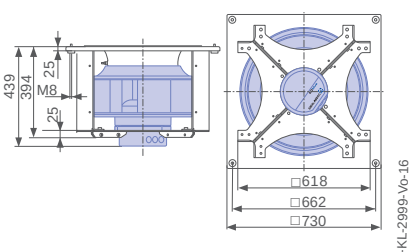


*=max. depth of screw

Ventilation unit GR in installation position H



Ventilation unit GR in installation position Vo

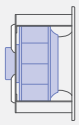
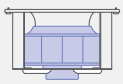


Performance data

Type	Characteristic curve	Speed n [min^{-1}]	Operating point	Current I [A]	Motor input power P_{sys} [W]	Suction side sound power level L_{WA5} [dB]
__56V-ZIK.GG.1R	I	1480	①	2.80	1050	83
		1480	②	7.40	2700	79
		1480	③	4.80	1800	85
	II	1280	④	1.90	700	78
		1280	⑤	4.80	1700	74
		1280	⑥	3.20	1200	83
	III	1080	⑦	1.25	440	74
		1080	⑧	2.80	1050	70
		1080	⑨	1.95	720	79
	IV	880	⑩	0.78	250	68
		880	⑪	1.60	580	66
		880	⑫	1.15	400	75
	V	680	⑬	0.52	130	61
		680	⑭	0.86	280	61
		680	⑮	0.68	200	70

Current values determined at 230V

Fan ordering information

Design	RH*	GR**	GR**	GR**
Installation position	H/Vu/Vo	H	Vo	Vu
				
Type	**RH56V-ZIK.GG.1R**	**GR56V-ZIK.GG.1R**	**GR56V-ZIK.GG.1R**	**GR56V-ZIK.GG.1R**
Basic electronics				
Article no.	**113940**	**114968/H01**	**114968/O01**	**114968/U01**
Premium electronics				
Article no.	**113941**			
Weight [kg]	22.00	42.00	43.00	43.00

* Inlet ring not included

** Inlet ring integrated

Control technology

Control module	Operating terminal	Expansion module
		
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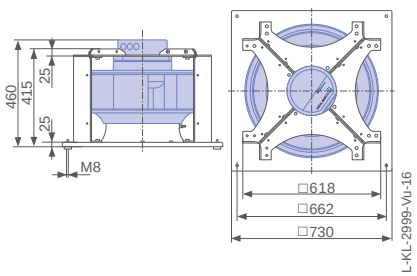
Ventilation unit GR in installation position Vu

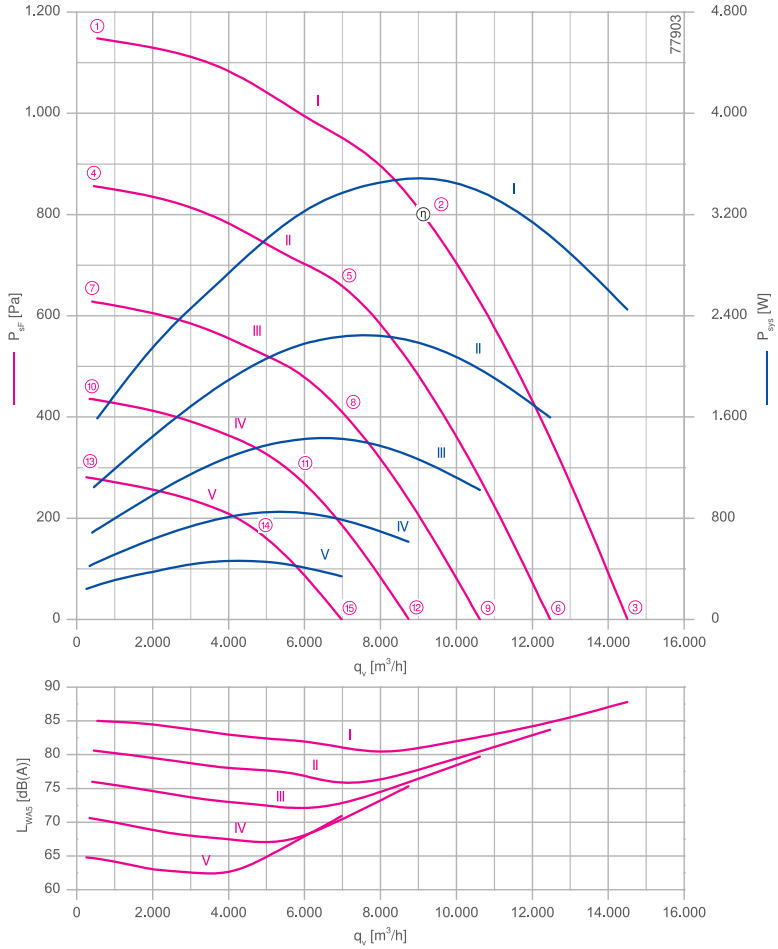


Vpro-EC blue

for single phase alternating current, 200-277 V

RH56V-ZIK

Characteristic curve



measured with inlet ring, without guard grille according to ISO 5801

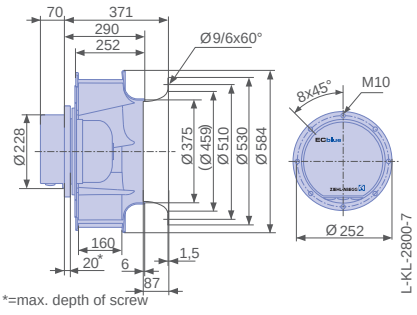
Description

Motor technology: EC
Rated voltage U: **3~380-480 V***
Rated frequency f: **50/60 Hz***
Motor input power P: **3.50 kW***
Rated current I: **5.70-4.50 A***
Rated speed n: **1620 min^{-1}***
Thermal class: **THCL155***
Min. permitted ambient temperature t_R: -15 °C
Max. permitted ambient temperature t_R at n_{max}: 60 °C
Electrical connection: integrated Controller
Number of blades : 6
Balancing quality: G 6.3
Protection class: IP54
Motor protection: Integrated active temperature management
Impeller : High Performance Composite Material, uncoated, black
Conformity: ErP 2015, CE
ErP-data
Efficiency η_{statA}: 62.6 %
Efficiency: N_{actual} = 67.4 / N_{target} = 62**
EC controller integrated
*Rated data
**ErP 2015

Inlet ring	00278489	Page 450
Connection diagram	1360-401	Page 548
System components		Page 448

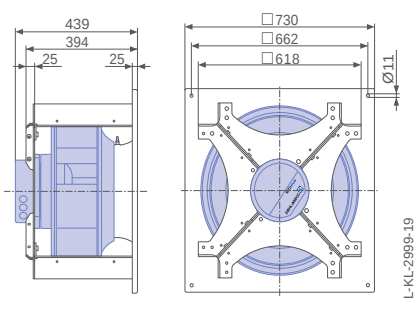
Dimensions [mm]

Free-running motor impeller RH in installation position H/Vu/Vo

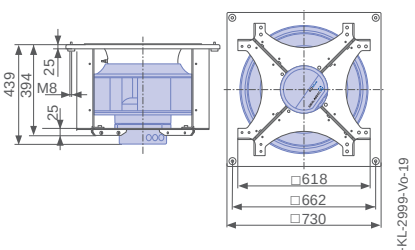


*=max. depth of screw

Ventilation unit GR in installation position H



Ventilation unit GR in installation position Vo

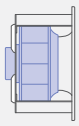
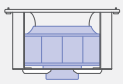


Performance data

Type	Characteristic curve	Speed n [min^{-1}]	Operating point	Current I [A]	Motor input power P_{sys} [W]	Suction side sound power level L_{WA5} [dB]
__56V-ZIK.GL.1R	I	1620	①	2.60	1600	85
		1620	②	5.40	3500	81
		1620	③	3.80	2400	88
	II	1400	④	1.75	1050	81
		1400	⑤	3.50	2200	77
		1400	⑥	2.60	1600	84
	III	1200	⑦	1.30	680	76
		1200	⑧	2.40	1450	73
		1200	⑨	1.75	1000	80
	IV	1000	⑩	0.96	420	71
		1000	⑪	1.55	860	67
		1000	⑫	1.20	620	75
	V	800	⑬	0.64	240	65
		800	⑭	1.05	460	63
		800	⑮	0.86	340	71

Current values determined at 400V

Fan ordering information

Design	RH*	GR**	GR**	GR**
Installation position	H/Vu/Vo	H	Vo	Vu
				
Type	**RH56V-ZIK.GL.1R**	**GR56V-ZIK.GL.1R**	**GR56V-ZIK.GL.1R**	**GR56V-ZIK.GL.1R**
Basic electronics				
Article no.	**113954**	**114971/H01**	**114971/O01**	**114971/U01**
Premium electronics				
Article no.	**113955**			
Weight [kg]	26.00	55.00	56.00	56.00

* Inlet ring not included

** Inlet ring integrated

Control technology

Control module	Operating terminal	Expansion module
		
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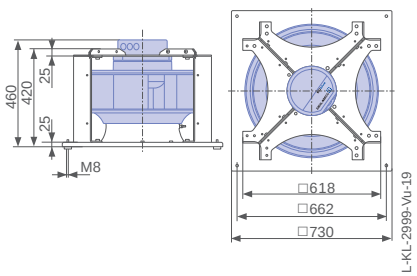
Ventilation unit GR in installation position Vu

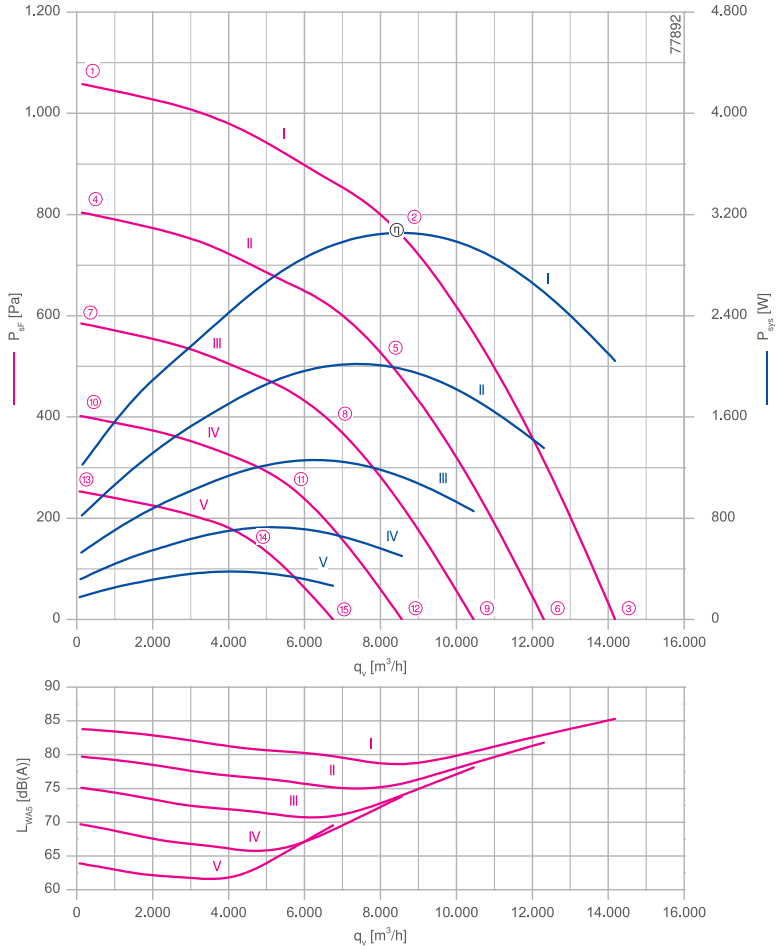


Vpro-EC blue

for three phase alternating current, 380-480 V

RH56V-ZIK

Characteristic curve



measured with inlet ring, without guard grille according to ISO 5801

Description

Motor technology: EC
Rated voltage U: **3~380-480 V***
Rated frequency f: **50/60 Hz***
Motor input power P: **3.10 kW***
Rated current I: **5.00-4.00 A***
Rated speed n: **1560 min^{-1}***
Thermal class: **THCL155***
Min. permitted ambient temperature t_R: -15 °C
Max. permitted ambient temperature t_R at n_{max}: 60 °C
Electrical connection: integrated Controller
Number of blades : 6
Balancing quality: G 6.3
Protection class: IP54
Motor protection: Integrated active temperature management
Impeller : High Performance Composite Material, uncoated, black
Conformity: ErP 2015, CE
ErP-data
Efficiency η_{statA}: 63.8 %
Efficiency: N_{actual} = 69.2 / N_{target} = 62**
EC controller integrated
*Rated data
**ErP 2015

Inlet ring	00278489	Page 450
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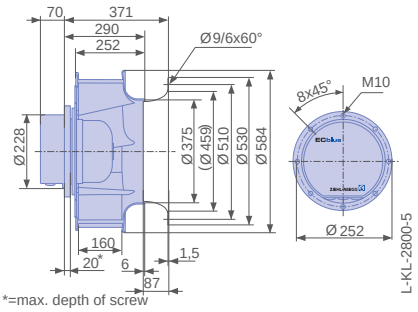
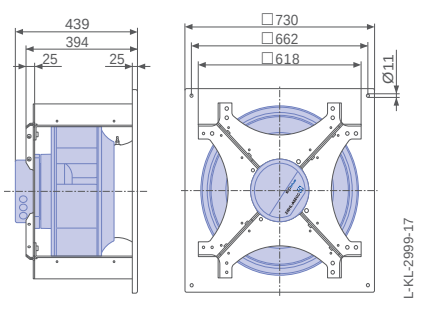
System components		Page 448

Dimensions [mm]

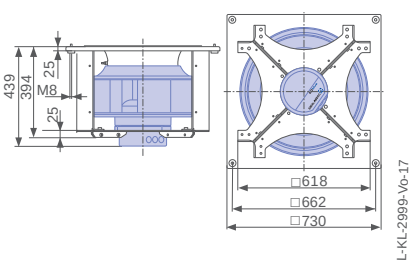
Free-running motor impeller RH in installation position H/Vu/Vo



Ventilation unit GR in installation position H



Ventilation unit GR in installation position Vo

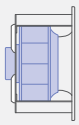
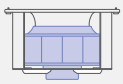


Performance data

Type	Characteristic curve	Speed n [min^{-1}]	Operating point	Current I [A]	Motor input power P_{sys} [W]	Suction side sound power level L_{WA5} [dB]
__56V-ZIK.GG.1R	I	1560	①	2.00	1200	84
		1560	②	4.80	3100	79
		1560	③	3.20	2000	85
	II	1360	④	1.45	820	80
		1360	⑤	3.20	2000	75
		1360	⑥	2.20	1350	82
	III	1160	⑦	1.05	520	75
		1160	⑧	2.10	1250	71
		1160	⑨	1.50	860	78
	IV	960	⑩	0.76	320	70
		960	⑪	1.30	720	66
		960	⑫	1.05	500	74
	V	760	⑬	0.50	180	64
		760	⑭	0.90	380	62
		760	⑮	0.70	270	70

Current values determined at 400V

Fan ordering information

Design	RH*	GR**	GR**	GR**
Installation position	H/Vu/Vo	H	Vo	Vu
				
Type	**RH56V-ZIK.GG.1R**	**GR56V-ZIK.GG.1R**	**GR56V-ZIK.GG.1R**	**GR56V-ZIK.GG.1R**
Basic electronics				
Article no.	**113938**	**114969/H01**	**114969/O01**	**114969/U01**
Premium electronics				
Article no.	**113939**			
Weight [kg]	22.00	51.00	51.00	51.00

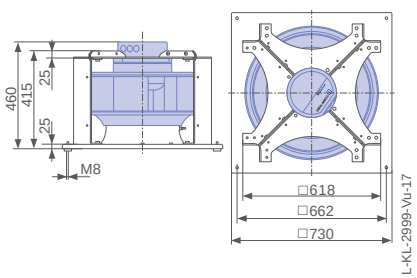
* Inlet ring not included

** Inlet ring integrated

Control technology

Control module	Operating terminal	Expansion module
		
Page 464	Page 476	Page 473

Ventilation unit GR in installation position Vu

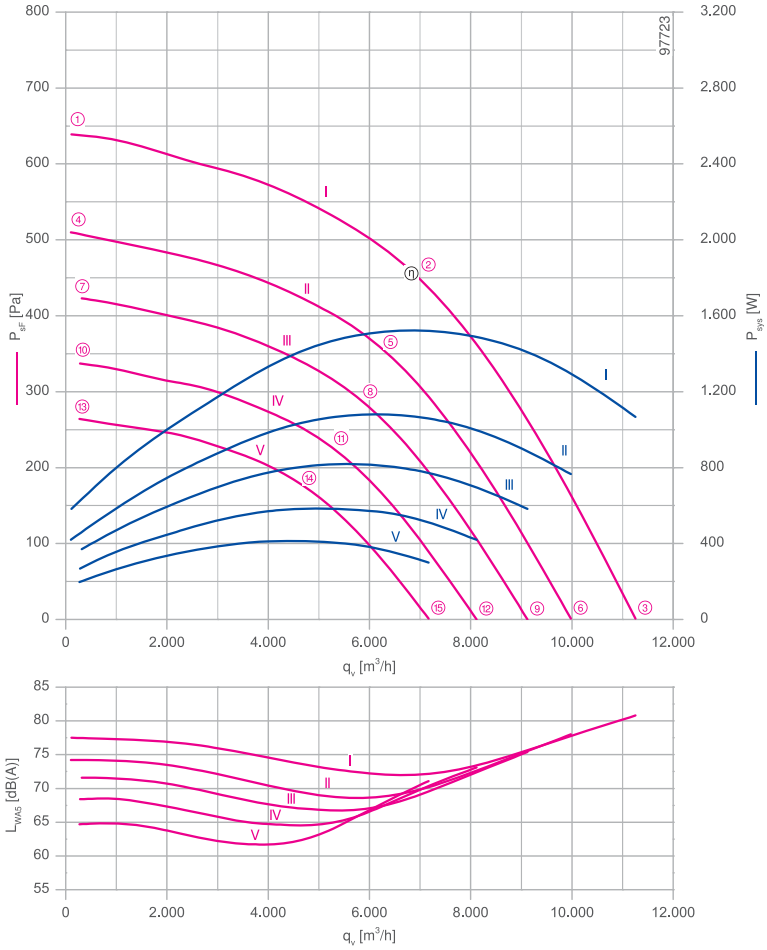


Vpro-EC blue

for three phase alternating current, 380-480 V

RH56V-ZIK

Characteristic curve



measured with inlet ring, without guard grille according to ISO 5801

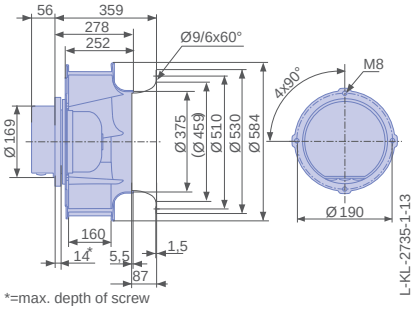
Description

Motor technology: EC
Rated voltage U: **3~380-480 V***
Rated frequency f: **50/60 Hz***
Motor input power P: **1.50 kW***
Rated current I: **2.60-2.10 A***
Rated speed n: **1230 min^{-1}***
Thermal class: **THCL155***
Min. permitted ambient temperature t_R: -15 °C
Max. permitted ambient temperature t_R at n_{max}: 40 °C
Electrical connection: integrated Controller
Number of blades : 6
Balancing quality: G 6.3
Protection class: IP54
Motor protection: Integrated active temperature management
Impeller : High Performance Composite Material, uncoated, black
Conformity: ErP 2015, CE
ErP-data
Efficiency η_{statA}: 58.6 %
Efficiency: N_{actual} = 71.6 / N_{target} = 62**
EC controller integrated
*Rated data
**ErP 2015

Inlet ring	00278489	Page 450
Connection diagram	1360-401	Page 548
System components		Page 448

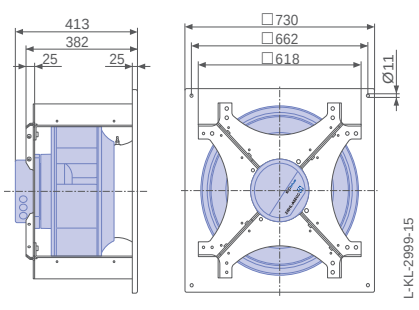
Dimensions [mm]

Free-running motor impeller RH in installation position H/Vu/Vo

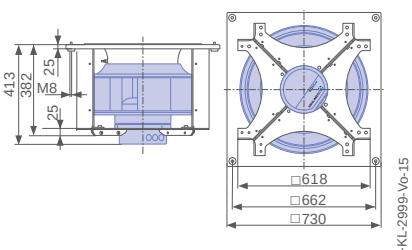


*=max. depth of screw

Ventilation unit GR in installation position H



Ventilation unit GR in installation position Vo

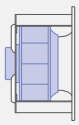
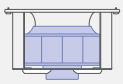


Performance data

Type	Characteristic curve	Speed n [min^{-1}]	Operating point	Current I [A]	Motor input power P_{sys} [W]	Suction side sound power level L_{WA5} [dB]
__56V-ZIK.DG.1R	I	1230	①	1.15	580	78
		1230	②	2.50	1500	72
		1230	③	1.85	1050	81
	II	1100	④	0.98	420	74
		1100	⑤	1.85	1100	69
		1100	⑥	1.40	760	78
	III	1010	⑦	0.84	370	72
		1010	⑧	1.40	820	67
		1010	⑨	1.10	580	75
	IV	900	⑩	0.70	270	68
		900	⑪	1.10	580	65
		900	⑫	0.90	420	73
	V	800	⑬	0.54	200	65
		800	⑭	0.92	420	62
		800	⑮	0.76	300	71

Current values determined at 400V

Fan ordering information

Design	RH*	GR**	GR**	GR**
Installation position	H/Vu/Vo	H	Vo	Vu
				
Type	**RH56V-ZIK.DG.1R**	**GR56V-ZIK.DG.1R**	**GR56V-ZIK.DG.1R**	**GR56V-ZIK.DG.1R**
Basic electronics				
Article no.	**113905**	**114967/H01**	**114967/O01**	**114967/U01**
Premium electronics				
Article no.	**113906**			
Weight [kg]	15.00	42.00	43.00	43.00

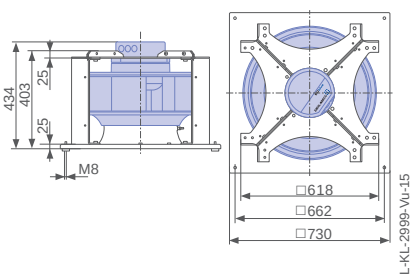
* Inlet ring not included

** Inlet ring integrated

Control technology

Control module	Operating terminal	Expansion module
		
Page 464	Page 476	Page 473

Ventilation unit GR in installation position Vu



Vpro-EC blue

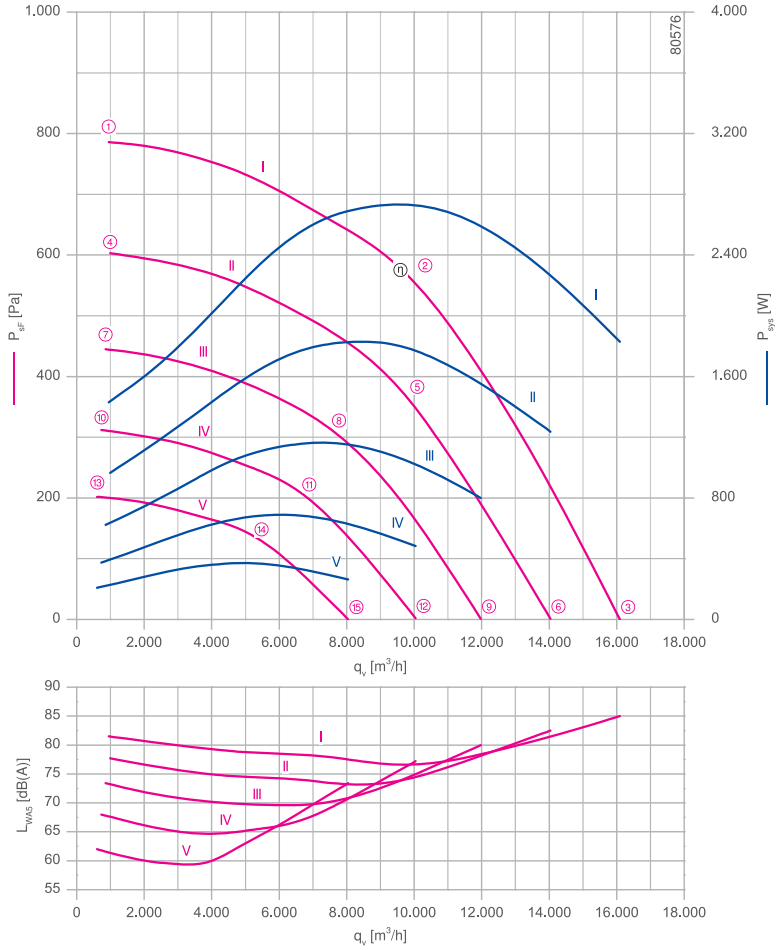
for three phase alternating current, 200-240 V

RH63V-ZIK

Description

Motor technology: EC
Rated voltage U: **3~200-240 V***
Rated frequency f: **50/60 Hz***
Motor input power P: **2.70 kW***
Rated current I: **8.20-6.80 A***
Rated speed n: **1220 min^{-1}***
Thermal class: **THCL155***
Min. permitted ambient temperature t_R: -15 °C
Max. permitted ambient temperature t_R at n_{max}: 60 °C
Electrical connection: integrated Controller
Number of blades : 6
Balancing quality: G 6.3
Protection class: IP54
Motor protection: Integrated active temperature management
Impeller : High Performance Composite Material, uncoated, black
Conformity: ErP 2015, CE
ErP-data
Efficiency η_{statA}: 61.2 %
Efficiency: N_{actual} = 67.1 / N_{target} = 62**
EC controller integrated
*Rated data
**ErP 2015

Characteristic curve



measured with inlet ring, without guard grille according to ISO 5801

Inlet ring	00279305	Page 450
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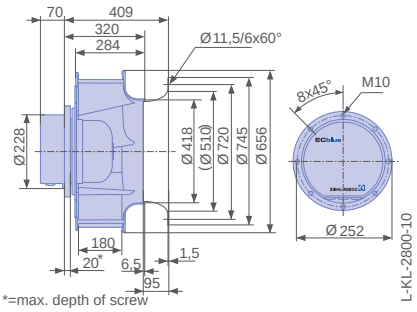
System components		Page 448

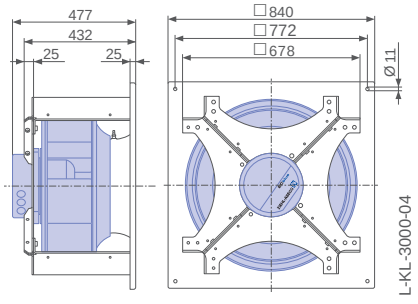
Dimensions [mm]

Free-running motor impeller RH in installation position H/Vu/Vo

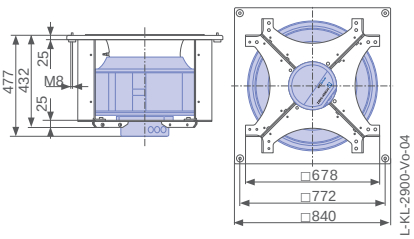


*=max. depth of screw

Ventilation unit GR in installation position H



Ventilation unit GR in installation position Vo

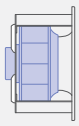
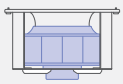


Performance data

Type	Characteristic curve	Speed n [min^{-1}]	Operating point	Current I [A]	Motor input power P_{sys} [W]	Suction side sound power level L_{WA5} [dB]
__63V-ZIK.GG.1R	I	1220	①	3.70	1450	82
		1220	②	7.20	2700	77
		1220	③	4.80	1850	85
	II	1070	④	2.50	960	78
		1070	⑤	4.80	1850	73
		1070	⑥	3.30	1250	83
	III	920	⑦	1.65	620	73
		920	⑧	3.10	1150	70
		920	⑨	2.10	800	80
	IV	770	⑩	1.05	380	68
		770	⑪	1.85	680	67
		770	⑫	1.30	480	77
	V	620	⑬	0.64	210	62
		620	⑭	1.05	370	63
		620	⑮	0.76	260	73

Current values determined at 230V

Fan ordering information

Design	RH*	GR**	GR**	GR**
Installation position	H/Vu/Vo	H	Vo	Vu
				
Type	**RH63V-ZIK.GG.1R**	**GR63V-ZIK.GG.1R**	**GR63V-ZIK.GG.1R**	**GR63V-ZIK.GG.1R**
Basic electronics				
Article no.	**113944**	**114972/H01**	**114972/O01**	**114972/U01**
Premium electronics				
Article no.	**113945**			
Weight [kg]	24.00	59.00	60.00	60.00

* Inlet ring not included

** Inlet ring integrated

Control technology

Control module	Operating terminal	Expansion module
		
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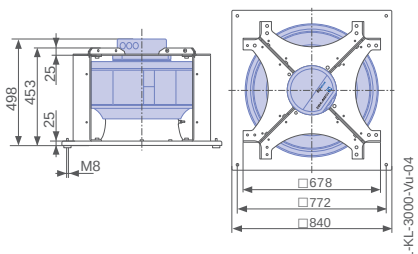
Ventilation unit GR in installation position Vu



Vpro-EC blue

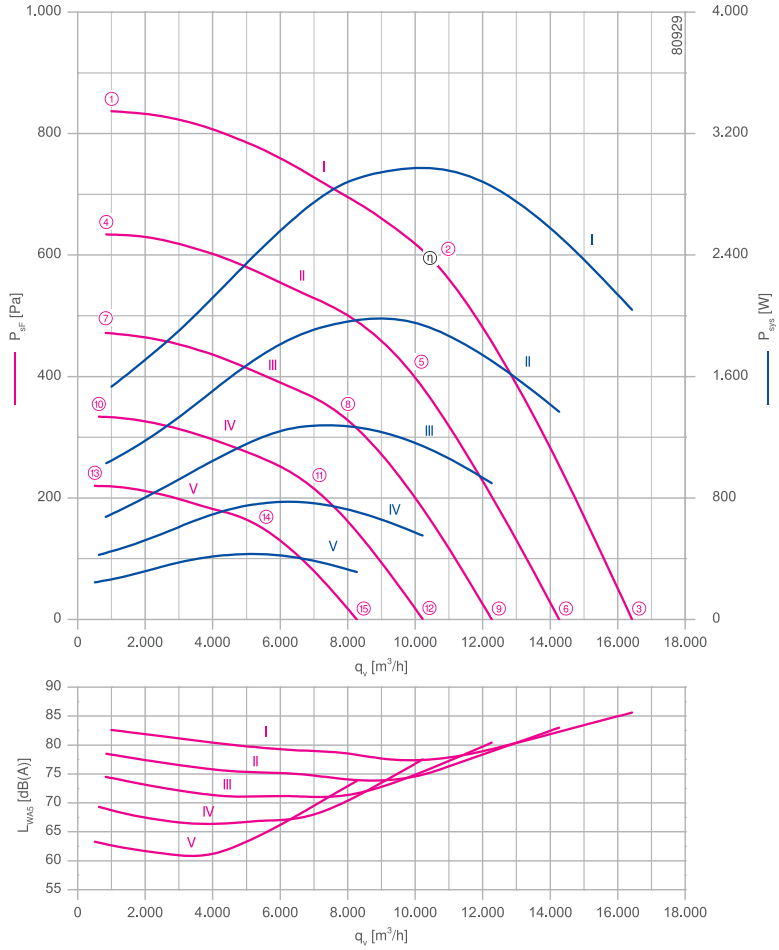
for three phase alternating current, 200-240 V

RH63V-ZIK

Description

Motor technology: EC
Rated voltage U: **3~200-240 V***
Rated frequency f: **50/60 Hz***
Motor input power P: **3.00 kW***
Rated current I: **9.00-7.50 A***
Rated speed n: **1260 min^{-1}***
Thermal class: **THCL155***
Min. permitted ambient temperature t_R: -15 °C
Max. permitted ambient temperature t_R at n_{max}: 60 °C
Electrical connection: integrated Controller
Number of blades : 6
Balancing quality: G 6.3
Protection class: IP54
Motor protection: Integrated active temperature management
Impeller : High Performance Composite Material, uncoated, black
Conformity: ErP 2015, CE
ErP-data
Efficiency η_{statA}: 62.8 %
Efficiency: N_{actual} = 68.4 / N_{target} = 62**
EC controller integrated
*Rated data
**ErP 2015

Characteristic curve

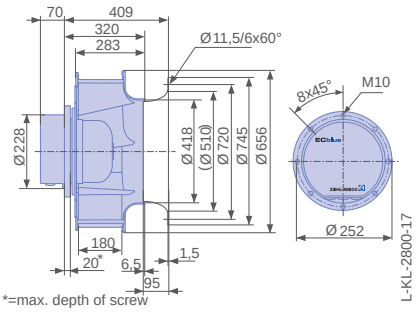


measured in inlet ring without guard grille according to ISO 5801

Inlet ring	00279305	Page 450
Connection diagram	1360-401	Page 548
System components		Page 448

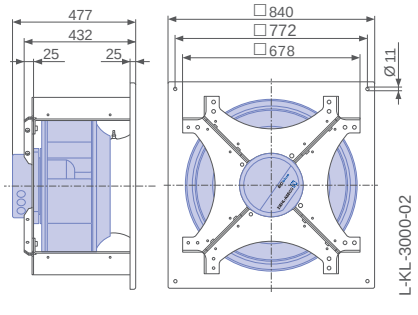
Dimensions [mm]

Free-running motor impeller RH in installation position H/Vu/Vo

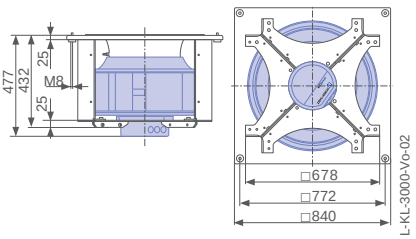


*=max. depth of screw

Ventilation unit GR in installation position H



Ventilation unit GR in installation position Vo

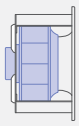
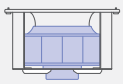


Performance data

Type	Characteristic curve	Speed n [min^{-1}]	Operating point	Current I [A]	Motor input power P_{sys} [W]	Suction side sound power level L_{WA5} [dB]
__63V-ZIK.GL.1R	I	1260	①	4.00	1550	83
		1260	②	7.80	3000	78
		1260	③	5.40	2000	86
	II	1100	④	2.70	1050	79
		1100	⑤	5.20	1950	74
		1100	⑥	3.60	1350	83
	III	950	⑦	1.80	680	75
		950	⑧	3.40	1300	71
		950	⑨	2.40	900	80
	IV	800	⑩	1.15	420	69
		800	⑪	2.10	780	67
		800	⑫	1.50	560	78
	V	650	⑬	0.72	240	63
		650	⑭	1.20	440	63
		650	⑮	0.88	310	74

Current values determined at 230V

Fan ordering information

Design	RH*	GR**	GR**	GR**
Installation position	H/Vu/Vo	H	Vo	Vu
				
Type	**RH63V-ZIK.GL.1R**	**GR63V-ZIK.GL.1R**	**GR63V-ZIK.GL.1R**	**GR63V-ZIK.GL.1R**
Basic electronics				
Article no.	**113960**	**114974/H01**	**114974/O01**	**114974/U01**
Premium electronics				
Article no.	**113961**			
Weight [kg]	29.00	64.00	64.00	60.00

* Inlet ring not included

** Inlet ring integrated

Control technology

Control module	Operating terminal	Expansion module
		
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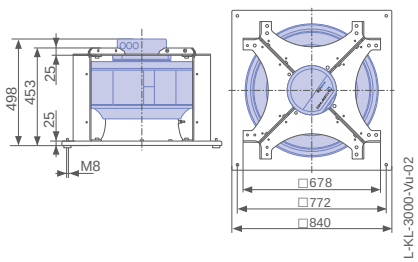
Ventilation unit GR in installation position Vu

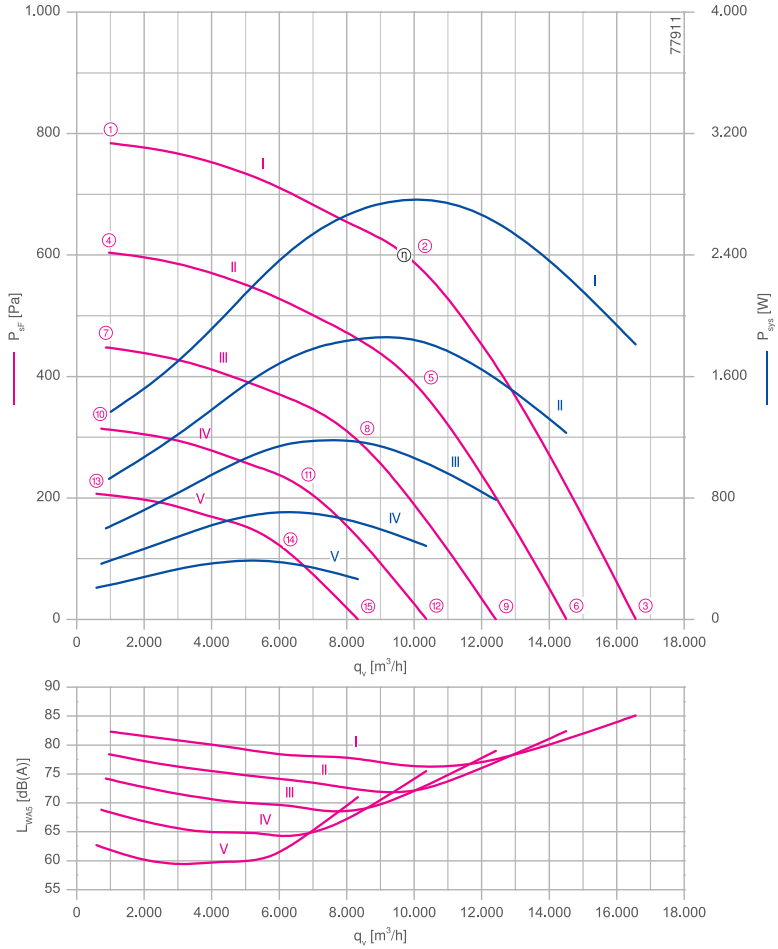


Vpro-EC blue

for three phase alternating current, 380-480 V

RH63V-ZIK

Characteristic curve



measured with inlet ring, without guard grille according to ISO 5801

Description

Motor technology: EC
Rated voltage U: **3~380-480 V***
Rated frequency f: **50/60 Hz***
Motor input power P: **2.80 kW***
Rated current I: **4.40-3.50 A***
Rated speed n: **1230 min^{-1}***
Thermal class: **THCL155***
Min. permitted ambient temperature t_R: -15 °C
Max. permitted ambient temperature t_R at n_{max}: 60 °C
Electrical connection: integrated Controller
Number of blades : 6
Balancing quality: G 6.3
Protection class: IP54
Motor protection: Integrated active temperature management
Impeller : High Performance Composite Material, uncoated, black
Conformity: ErP 2015, CE
ErP-data
Efficiency η_{statA}: 63.8 %
Efficiency: N_{actual} = 69.6 / N_{target} = 62**
EC controller integrated
*Rated data
**ErP 2015

Inlet ring	00279305	Page 450
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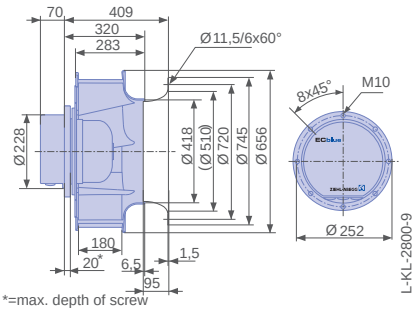
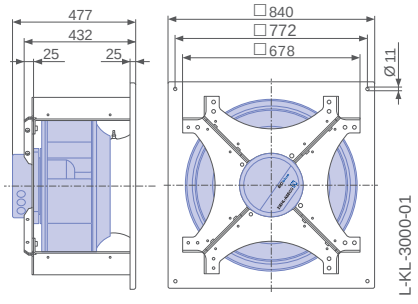
Dimensions [mm]

Free-running motor impeller RH in installation position H/Vu/Vo

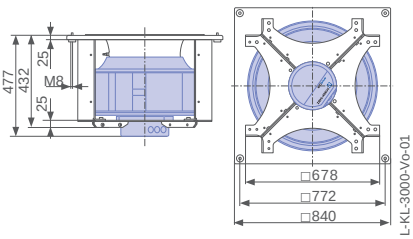


*=max. depth of screw

Ventilation unit GR in installation position H



Ventilation unit GR in installation position Vo

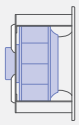
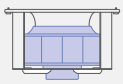


Performance data

Type	Characteristic curve	Speed n [min^{-1}]	Operating point	Current I [A]	Motor input power P_{sys} [W]	Suction side sound power level L_{WA5} [dB]
__63V-ZIK.GG.1R	I	1230	①	2.10	1350	82
		1230	②	4.20	2800	77
		1230	③	2.80	1800	85
	II	1080	④	1.50	920	78
		1080	⑤	2.80	1850	72
		1080	⑥	1.95	1250	82
	III	930	⑦	1.05	600	74
		930	⑧	1.85	1200	69
		930	⑨	1.30	780	79
	IV	780	⑩	0.74	370	69
		780	⑪	1.20	700	64
		780	⑫	0.90	480	76
	V	630	⑬	0.50	210	63
		630	⑭	0.78	390	60
		630	⑮	0.60	270	71

Current values determined at 400V

Fan ordering information

Design	RH*	GR**	GR**	GR**
Installation position	H/Vu/Vo	H	Vo	Vu
				
Type	**RH63V-ZIK.GG.1R**	**GR63V-ZIK.GG.1R**	**GR63V-ZIK.GG.1R**	**GR63V-ZIK.GG.1R**
Basic electronics				
Article no.	**113942**	**114973/H01**	**114973/O01**	**114973/U01**
Premium electronics				
Article no.	**113943**			
Weight [kg]	24.00	59.00	60.00	60.00

* Inlet ring not included

** Inlet ring integrated

Control technology

Control module	Operating terminal	Expansion module
		
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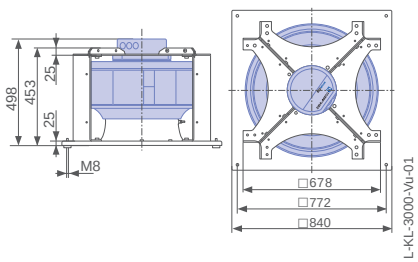
Ventilation unit GR in installation position Vu



Vpro-EC blue

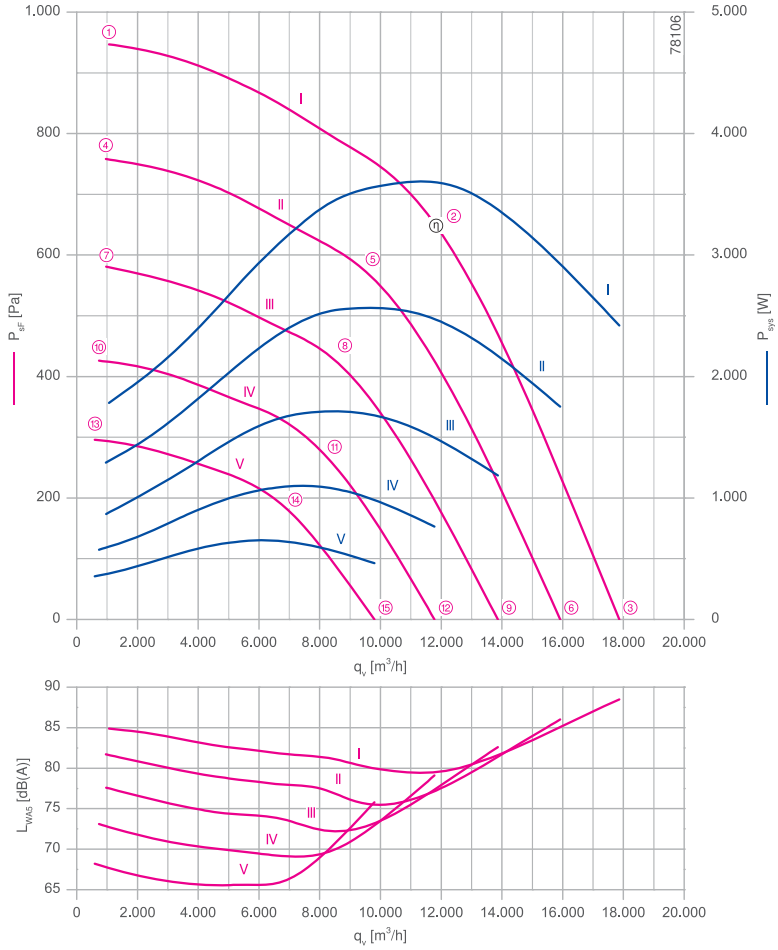
for three phase alternating current, 380-480 V

RH63V-ZIK

Description

Motor technology: EC
Rated voltage U: **3~380-480 V***
Rated frequency f: **50/60 Hz***
Motor input power P: **3.60 kW***
Rated current I: **5.70-4.50 A***
Rated speed n: **1340 min^{-1}***
Thermal class: **THCL155***
Min. permitted ambient temperature t_R: -15 °C
Max. permitted ambient temperature t_R at n_{max}: 60 °C
Electrical connection: integrated Controller
Number of blades : 6
Balancing quality: G 6.3
Protection class: IP54
Motor protection: Integrated active temperature management
Impeller : High Performance Composite Material, uncoated, black
Conformity: ErP 2015, CE
ErP-data
Efficiency η_{statA}: 63.6 %
Efficiency: N_{actual} = 68.2 / N_{target} = 62**
EC controller integrated
*Rated data
**ErP 2015

Characteristic curve



measured with inlet ring, without guard grille according to ISO 5801

Inlet ring	00279305	Page 450
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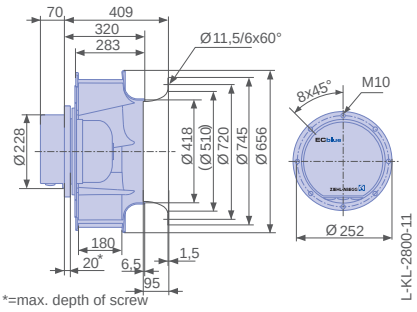
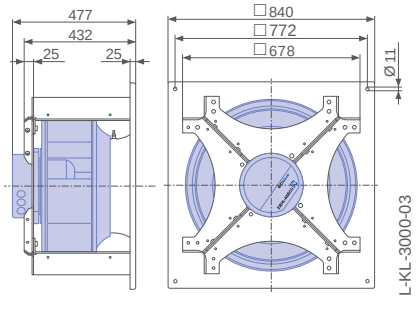
Dimensions [mm]

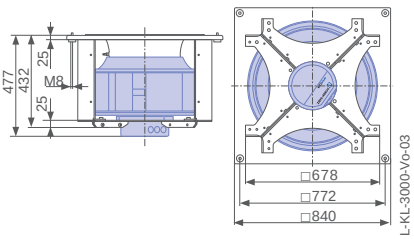
Free-running motor impeller RH
in installation position H/Vu/Vo



Ventilation unit GR in installation position H



Ventilation unit GR in installation position Vo

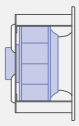
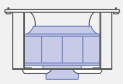


Performance data

Type	Characteristic curve	Speed n [min^{-1}]	Operating point	Current I [A]	Motor input power P_{sys} [W]	Suction side sound power level L_{WA5} [dB]
__63V-ZIK.GL.1R	I	1340	①	2.70	1800	85
		1340	②	5.40	3600	80
		1340	③	3.70	2400	89
	II	1200	④	2.00	1300	82
		1200	⑤	3.90	2600	76
		1200	⑥	2.70	1750	86
	III	1050	⑦	1.40	860	78
		1050	⑧	2.60	1700	72
		1050	⑨	1.85	1200	83
	IV	900	⑩	0.98	580	73
		900	⑪	1.70	1100	69
		900	⑫	1.25	760	79
	V	750	⑬	0.72	350	68
		750	⑭	1.10	640	66
		750	⑮	0.84	460	76

Current values determined at 400V

Fan ordering information

Design	RH*	GR**	GR**	GR**
Installation position	H/Vu/Vo	H	Vo	Vu
				
Type	**RH63V-ZIK.GL.1R**	**GR63V-ZIK.GL.1R**	**GR63V-ZIK.GL.1R**	**GR63V-ZIK.GL.1R**
Basic electronics				
Article no.	**113958**	**114975/H01**	**114975/O01**	**114975/U01**
Premium electronics				
Article no.	**113959**			
Weight [kg]	29.00	59.00	60.00	60.00

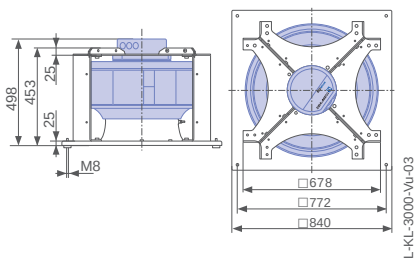
* Inlet ring not included

** Inlet ring integrated

Control technology

Control module	Operating terminal	Expansion module
		
Page 464	Page 476	Page 473

Ventilation unit GR in installation position Vu




ZIEHL-ABEGG

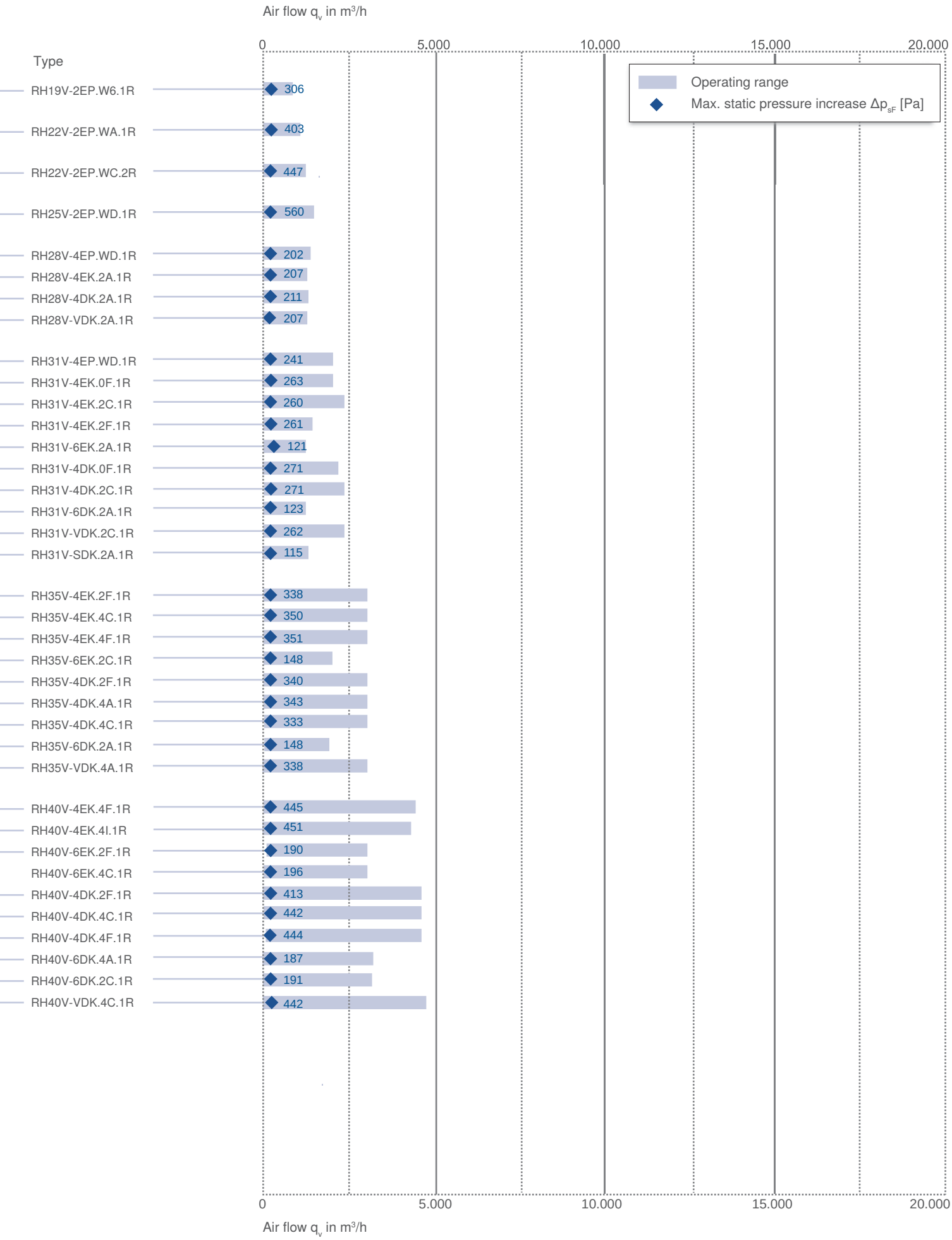
Centrifugal Fans Vpro

AC technology

Product overview

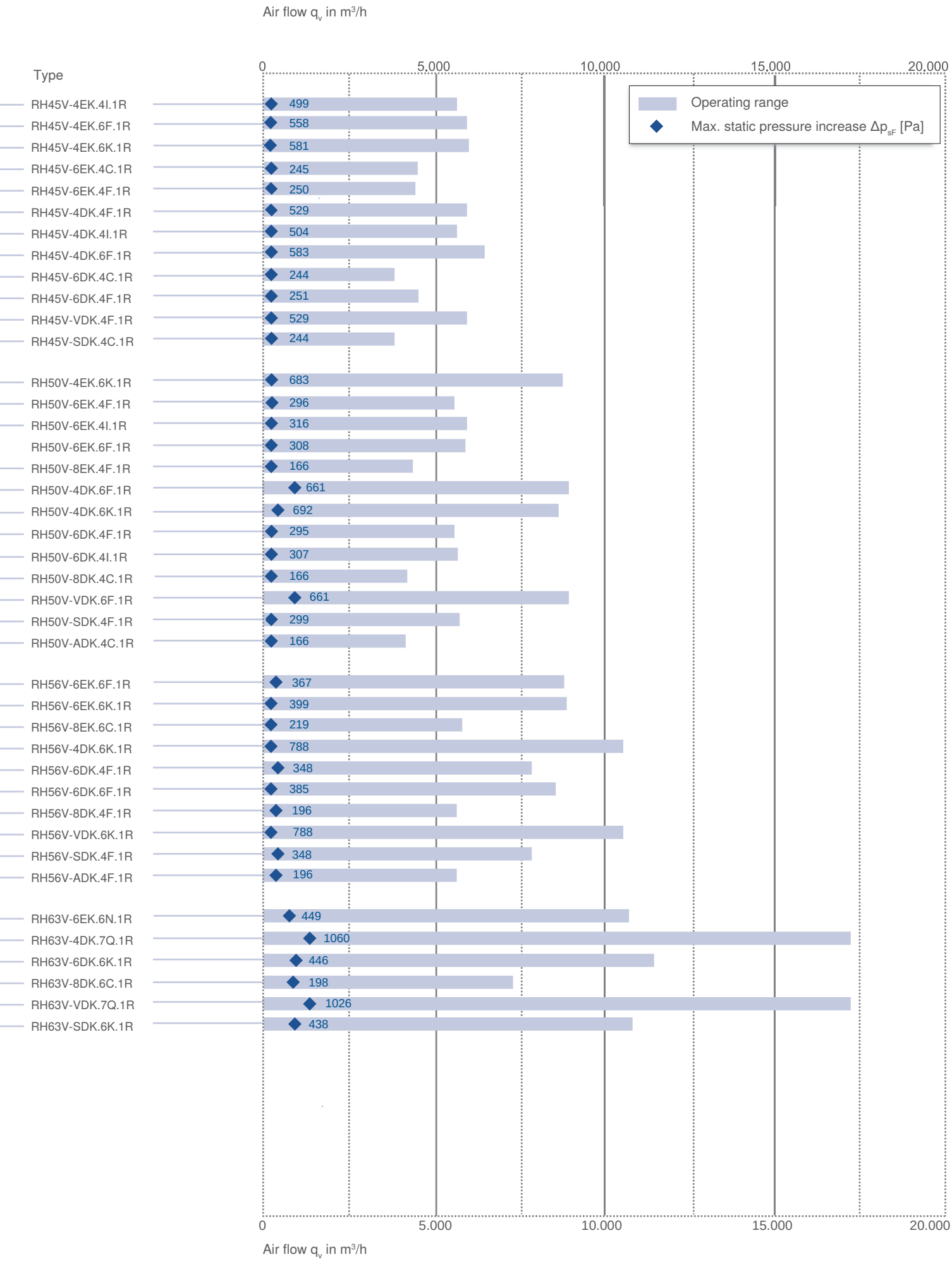
Size	Voltage	Pole-count	Type	Impeller position	ErP	Page
190	1~ 230 V	2	RH19V-2EP.W6.1R	P	**	230
220	1~ 230 V	2	RH22V-2EP.WA.1R	P	**	232
225	1~ 230 V	2	RH22V-2EP.WC.2R	P	-	234
250	1~ 230 V	2	RH25V-2EP.WD.1R	P	-	236
280	1~ 230 V	4	RH28V-4EP.WD.1R	P	**	238
			RH28V-4EK.2A.1R	K	-	240
	3~ 400 V	4	RH28V-4DK.2A.1R	K	**	242
		4-4	RH28V-VDK.2A.1R	K	**	244
315	1~ 230 V	4	RH31V-4EP.WD.1R	P	-	246
			RH31V-4EK.0F.1R	K	2015	248
			RH31V-4EK.2C.1R	K	-	250
			RH31V-4EK.2F.1R	K	-	252
		6	RH31V-6EK.2A.1R	K	**	254
	3~ 400 V	4	RH31V-4DK.0F.1R	K	2015	256
			RH31V-4DK.2C.1R	K	2015	258
		6	RH31V-6DK.2A.1R	K	**	260
		4-4	RH31V-VDK.2C.1R	K	2015	262
		6-6	RH31V-SDK.2A.1R	K	**	264
355	1~ 230 V	4	RH35V-4EK.2F.1R	K	-	266
			RH35V-4EK.4C.1R	K	2013	268
			RH35V-4EK.4F.1R	K	2013	270
		6	RH35V-6EK.2C.1R	K	**	272
	3~ 400 V	4	RH35V-4DK.2F.1R	K	2015	274
			RH35V-4DK.4A.1R	K	2015	276
			RH35V-4DK.4C.1R	K	2015	278
		6	RH35V-6DK.2A.1R	K	**	280
		4-4	RH35V-VDK.4A.1R	K	2015	282
400	1~ 230 V	4	RH40V-4EK.4F.1R	K	2015	284
			RH40V-4EK.4I.1R	K	2013	286
		6	RH40V-6EK.2F.1R	K	-	288
			RH40V-6EK.4C.1R	K	2015	290
	3~ 400 V	4	RH40V-4DK.2F.1R	K	2013	292
			RH40V-4DK.4C.1R	K	2015	294
			RH40V-4DK.4F.1R	K	2015	296
		6	RH40V-6DK.4A.1R	K	2013	298
			RH40V-6DK.2C.1R	K	-	300
		4-4	RH40V-VDK.4C.1R	K	2015	302

** Not subject to ErP regulation (P_1 < 125 W)


Air flow q_v in m³/h
0
5.000
10.000
15.000
20.000
Type
Operating range
Max. static pressure increase Δp_{sF} [Pa]
RH19V-2EP.W6.1R 306
RH22V-2EP.WA.1R 403
RH22V-2EP.WC.2R 447
RH25V-2EP.WD.1R 560
RH28V-4EP.WD.1R 202
RH28V-4EK.2A.1R 207
RH28V-4DK.2A.1R 211
RH28V-VDK.2A.1R 207
RH31V-4EP.WD.1R 241
RH31V-4EK.0F.1R 263
RH31V-4EK.2C.1R 260
RH31V-4EK.2F.1R 261
RH31V-6EK.2A.1R 121
RH31V-4DK.0F.1R 271
RH31V-4DK.2C.1R 271
RH31V-6DK.2A.1R 123
RH31V-VDK.2C.1R 262
RH31V-SDK.2A.1R 115
RH35V-4EK.2F.1R 338
RH35V-4EK.4C.1R 350
RH35V-4EK.4F.1R 351
RH35V-6EK.2C.1R 148
RH35V-4DK.2F.1R 340
RH35V-4DK.4A.1R 343
RH35V-4DK.4C.1R 333
RH35V-6DK.2A.1R 148
RH35V-VDK.4A.1R 338
RH40V-4EK.4F.1R 445
RH40V-4EK.4I.1R 451
RH40V-6EK.2F.1R 190
RH40V-6EK.4C.1R 196
RH40V-4DK.2F.1R 413
RH40V-4DK.4C.1R 442
RH40V-4DK.4F.1R 444
RH40V-6DK.4A.1R 187
RH40V-6DK.2C.1R 191
RH40V-VDK.4C.1R 442
0
5.000
10.000
15.000
20.000
Air flow q_v in m³/h

Size	Voltage	Pole-count	Type	Impeller position	ErP	Page
450	1~ 230 V	4	RH45V-4EK.4I.1R	K	-	304
			RH45V-4EK.6F.1R	K	-	306
			RH45V-4EK.6K.1R	K	2013	308
		6	RH45V-6EK.4C.1R	K	-	310
			RH45V-6EK.4F.1R	K	-	312
	3~ 400 V	4	RH45V-4DK.4F.1R	K	-	314
			RH45V-4DK.4I.1R	K	2013	316
			RH45V-4DK.6F.1R	K	2015	318
		6	RH45V-6DK.4C.1R	K	-	320
			RH45V-6DK.4F.1R	K	2015	322
		4-4	RH45V-VDK.4F.1R	K	-	324
		6-6	RH45V-SDK.4C.1R	K	-	326
500	1~ 230 V	4	RH50V-4EK.6K.1R	K	-	328
		6	RH50V-6EK.4F.1R	K	-	330
			RH50V-6EK.4I.1R	K	-	332
			RH50V-6EK.6F.1R	K	-	334
		8	RH50V-8EK.4F.1R	K	-	336
	3~ 400 V	4	RH50V-4DK.6F.1R	K	2013	338
			RH50V-4DK.6K.1R	K	2015	340
		6	RH50V-6DK.4F.1R	K	-	342
			RH50V-6DK.4I.1R	K	2015	344
		8	RH50V-8DK.4C.1R	K	-	346
		4-4	RH50V-VDK.6F.1R	K	2013	348
		6-6	RH50V-SDK.4F.1R	K	-	350
		8-8	RH50V-ADK.4C.1R	K	-	352
560	1~ 230 V	6	RH56V-6EK.6F.1R	K	2013	354
			RH56V-6EK.6K.1R	K	-	356
		8	RH56V-8EK.6C.1R	K	-	358
	3~ 400 V	4	RH56V-4DK.6K.1R	K	-	360
		6	RH56V-6DK.4F.1R	K	-	362
			RH56V-6DK.6F.1R	K	2015	364
		8	RH56V-8DK.4F.1R	K	-	366
		4-4	RH56V-VDK.6K.1R	K	-	368
		6-6	RH56V-SDK.4F.1R	K	-	370
		8-8	RH56V-ADK.4F.1R	K	-	372
630	1~ 230 V	6	RH63V-6EK.6N.1R	K	-	374
	3~ 400 V	4	RH63V-4DK.7Q.1R	K	2013	376
		6	RH63V-6DK.6K.1R	K	2015	378
		8	RH63V-8DK.6C.1R	K	-	380
		4-4	RH63V-VDK.7Q.1R	K	2013	382
		6-6	RH63V-SDK.6K.1R	K	2013	384

** Not subject to ErP regulation (P_1 < 125 W)


Air flow q_v in m³/h
Type
0
5.000
10.000
15.000
20.000
Operating range
Max. static pressure increase Δp_{sF} [Pa]
RH45V-4EK.4I.1R 499
RH45V-4EK.6F.1R 558
RH45V-4EK.6K.1R 581
RH45V-6EK.4C.1R 245
RH45V-6EK.4F.1R 250
RH45V-4DK.4F.1R 529
RH45V-4DK.4I.1R 504
RH45V-4DK.6F.1R 583
RH45V-6DK.4C.1R 244
RH45V-6DK.4F.1R 251
RH45V-VDK.4F.1R 529
RH45V-SDK.4C.1R 244
RH50V-4EK.6K.1R 683
RH50V-6EK.4F.1R 296
RH50V-6EK.4I.1R 316
RH50V-6EK.6F.1R 308
RH50V-8EK.4F.1R 166
RH50V-4DK.6F.1R 661
RH50V-4DK.6K.1R 692
RH50V-6DK.4F.1R 295
RH50V-6DK.4I.1R 307
RH50V-8DK.4C.1R 166
RH50V-VDK.6F.1R 661
RH50V-SDK.4F.1R 299
RH50V-ADK.4C.1R 166
RH56V-6EK.6F.1R 367
RH56V-6EK.6K.1R 399
RH56V-8EK.6C.1R 219
RH56V-4DK.6K.1R 788
RH56V-6DK.4F.1R 348
RH56V-6DK.6F.1R 385
RH56V-8DK.4F.1R 196
RH56V-VDK.6K.1R 788
RH56V-SDK.4F.1R 348
RH56V-ADK.4F.1R 196
RH63V-6EK.6N.1R 449
RH63V-4DK.7Q.1R 1060
RH63V-6DK.6K.1R 446
RH63V-8DK.6C.1R 198
RH63V-VDK.7Q.1R 1026
RH63V-SDK.6K.1R 438
0
5.000
10.000
15.000
20.000
Air flow q_v in m³/h

V p r o

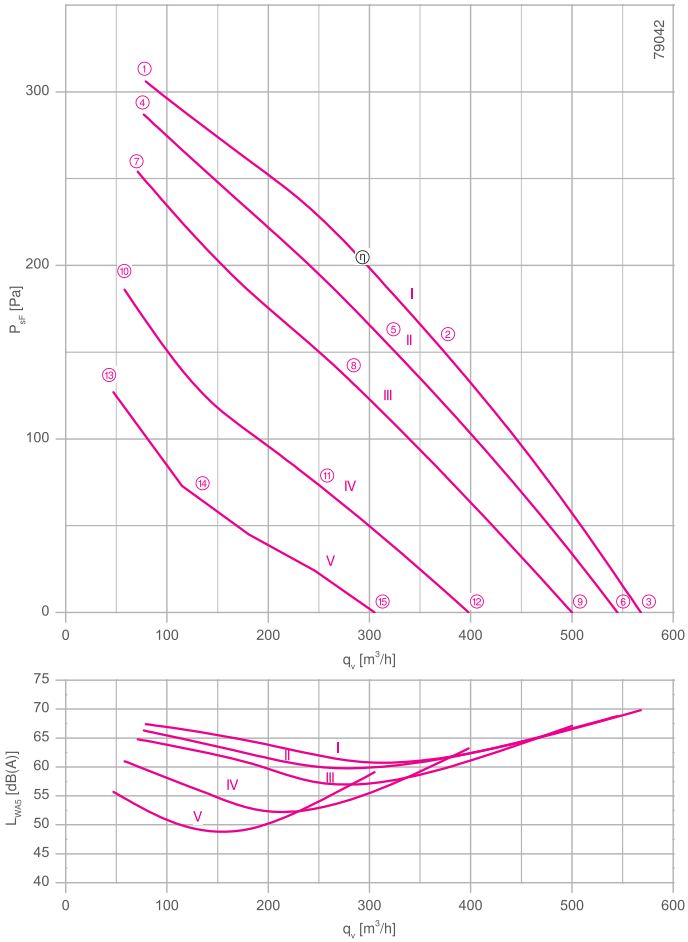
for single phase alternating current, 2 pole

R H 1 9 V - 2 E

Description

Motor technology: AC
Rated voltage U_N: **1~ 230 V***
Rated frequency f_N: **50 Hz*** (60Hz data available)
Motor input power P_1: **0.6 kW***
Rated current I_N: **0.26 A***
Rated speed n_N: **2500 min^{-1}***
Current increase ΔI: 0 %
Service capacitor C_{400V}: 2.0 µF
Dynamic pressure: $p_{d2} = 8.05 \cdot 10^{-5} \cdot q_V^2$ [Pa]
Thermal class: **THCL130***
Min. permitted ambient temperature $t_{R(min)}$: -30 °C
Max. permitted ambient temperature $t_{R(max)}$: 60 °C
Motor protection: Thermal contact
Impeller : High Performance Composite Material, uncoated, black
Conformity: CE
ErP-data
Not subject to ErP regulations (P_1< 125 W)
* Rated data

Characteristic curve

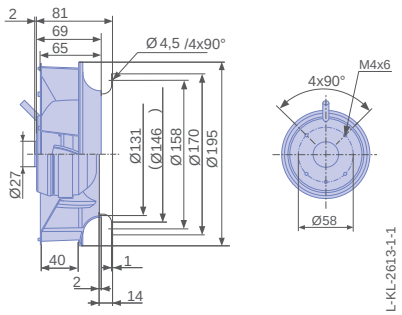


measured with inlet ring, without guard grille according to ISO 5801

Inlet ring	00407897	Page 450
Connection diagram	1360-177X SW	Page 550
System components		Page 448

Dimensions [mm]

Free-running motor impeller RH
in installation position H/Vu/Vo



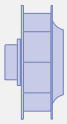
Performance data

Type	Characteristic curve	Voltage U [V]	Operating point	Current I [A]	Motor input power P_1 [W]	Speed n [min^{-1}]	Suction side sound power level L_{WA5} [dB]
RH19V-2EP.W6.1R	I	230	①	0.23	55	2680	67
		230*	②	**0.26***	**60***	**2530***	62
		230	③	0.24	55	2620	70
	II	200	④	0.21	42	2590	66
		200	⑤	0.25	50	2390	60
		200	⑥	0.23	46	2510	69
	III	170	⑦	0.21	36	2440	65
		170	⑧	0.25	42	2150	58
		170	⑨	0.23	38	2300	67
	IV	135	⑩	0.20	28	2100	61
		135	⑪	0.23	32	1720	55
		135	⑫	0.22	30	1920	63
	V	110	⑬	0.19	22	1720	56
		110	⑭	0.20	22	1390	49
		110	⑮	0.19	22	1470	59

*rated data

Fan ordering information

Design	RH*
Installation position	H/Vu/Vo
Electrical connection	Supply cable variable 45cm



Type	**RH19V-2EP.W6.1R**
Article no.	**113234**

Weight [kg]	1.45

* Inlet ring not included

Control technology

Frequency inverter Fcontrol 1~

Page 478

Motor protection units 1~

Page 526

Transformer-based controllers 1~

Page 517

Electronic voltage controllers 1~

Page 492

V p r o

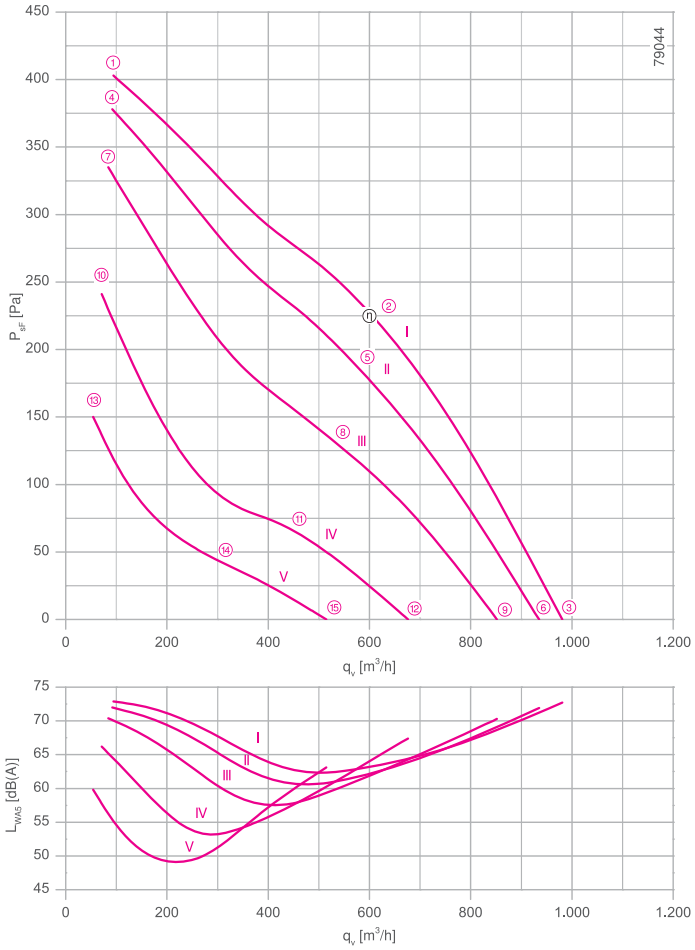
for single phase alternating current, 2 pole

R H 2 2 V - 2 E

Description

Motor technology: AC
Rated voltage U_N: **1~ 230 V***
Rated frequency f_N: **50 Hz*** (60Hz data available)
Motor input power P_1: **0.10 kW***
Rated current I_N: **0.45 A***
Rated speed n_N: **2560 min^{-1}***
Current increase ΔI: 0 %
Service capacitor C_{400V}: 2.5 µF
Dynamic pressure: $p_{dz} = 5.9 \cdot 10^{-5} \cdot q_V^2$ [Pa]
Thermal class: **THCL130***
Min. permitted ambient temperature $t_{R(min)}$: -30 °C
Min. admissible ambient temperature $t_{R(max)}$: 60 °C
Motor protection: Thermal contact
Impeller : High Performance Composite Material, uncoated, black
Conformity: CE
ErP-data
Not subject to ErP regulations (P_1< 125 W)
* Rated data

Characteristic curve

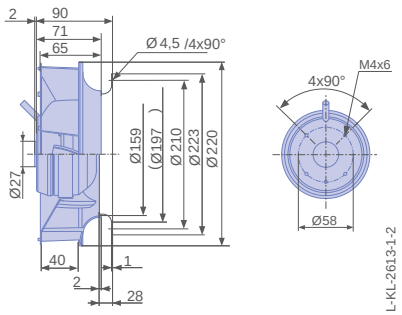


measured with inlet ring, without guard grille according to ISO 5801

Inlet ring	00407899	Page 450
Connection diagram	1360-177X SW	Page 550
System components		Page 448

Dimensions [mm]

Free-running motor impeller RH
in installation position H/Vu/Vo



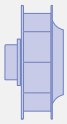
Performance data

Type	Characteristic curve	Voltage U [V]	Operating point	Current I [A]	Motor input power P_1 [W]	Speed n [min^{-1}]	Suction side sound power level L_{WA5} [dB]
RH22V-2EP.WA.1R	I	230	①	0.35	80	2730	73
		230*	②	**0.46***	**110***	**2500***	62
		230	③	0.39	90	2650	73
	II	200	④	0.35	70	2640	72
		200	⑤	0.46	95	2320	61
		200	⑥	0.39	80	2520	72
	III	170	⑦	0.35	60	2490	70
		170	⑧	0.46	80	2010	58
		170	⑨	0.40	70	2310	70
	IV	135	⑩	0.35	46	2110	66
		135	⑪	0.42	55	1510	54
		135	⑫	0.39	50	1840	67
	V	110	⑬	0.33	36	1670	60
		110	⑭	0.36	38	1140	48
		110	⑮	0.35	38	1400	63

*rated data

Fan ordering information

Design	RH*
Installation position	H/Vu/Vo
Electrical connection	Supply cable variable 45cm



Type	**RH22V-2EP.WA.1R**
Article no.	**113235**

Weight [kg]	1.91

* Inlet ring not included

Control technology

Frequency inverter Fcontrol 1~

Page 478

Motor protection units 1~

Page 526

Transformer-based controllers 1~

Page 517

Electronic voltage controllers 1~

Page 492

V p r o

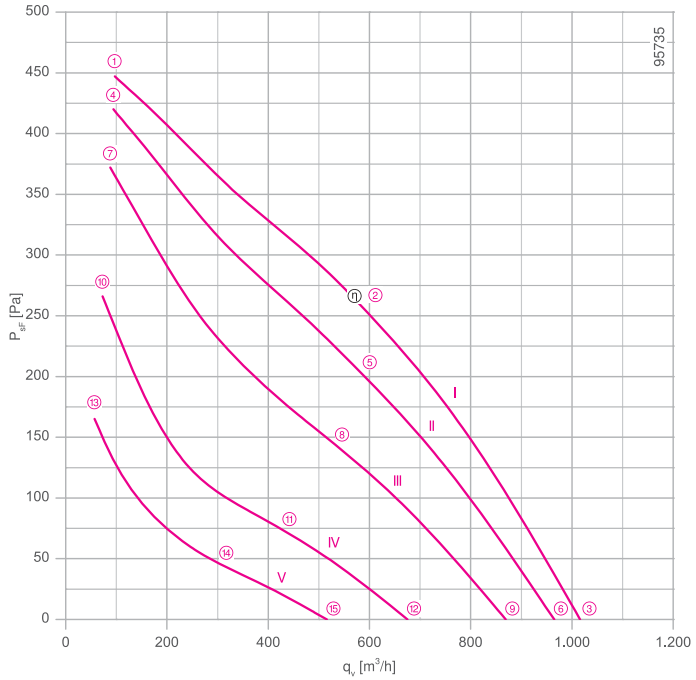
for single phase alternating current, 2 pole

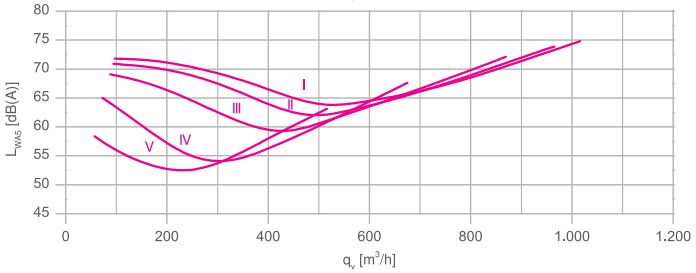
R H 2 2 V - 2 E

Description

Motor technology: AC
Rated voltage U_N: **1~ 230 V***
Rated frequency f_N: **50 Hz*** (60Hz data available)
Motor input power P_1: **0.12 kW***
Rated current I_N: **0.52 A***
Rated speed n_N: **2500 min^{-1}***
Current increase ΔI: 0 %
Service capacitor C_{400V}: 4.0 µF
Thermal class: **THCL155***
Min. permitted ambient temperature $t_{R(min)}$: -30 °C
Max. permitted ambient temperature $t_{R(max)}$: 60 °C
Motor protection: Thermal contact
Impeller : High Performance Composite Material, uncoated, black
Conformity: CE
ErP-data
Not subject to ErP regulations (P_1< 125 W)
* Rated data

Characteristic curve



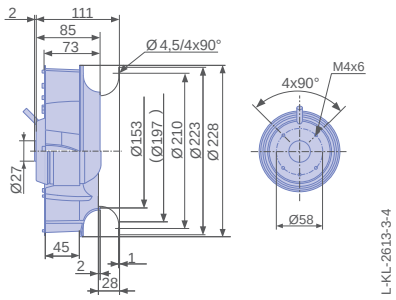


measured with inlet ring, without guard grille according to ISO 5801

Inlet ring	00407899	Page 450
Connection diagram	1360-177X SW	Page 550
System components		Page 448

Dimensions [mm]

Free-running motor impeller RH
in installation position H/Vu/Vo



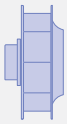
Performance data

Type	Characteristic curve	Voltage U [V]	Operating point	Current I [A]	Motor input power P_1 [W]	Speed n [min^{-1}]	Suction side sound power level L_{WA5} [dB]
RH22V-2EP.WC.2R	I	230	①	0.40	90	2720	72
		230*	②	**0.52***	**120***	**2490***	64
		230	③	0.46	110	2600	75
	II	200	④	0.40	75	2630	71
		200	⑤	0.52	100	2300	63
		200	⑥	0.46	90	2470	74
	III	170	⑦	0.40	65	2480	69
		170	⑧	0.52	85	1990	59
		170	⑨	0.46	80	2240	72
	IV	135	⑩	0.39	55	2100	65
		135	⑪	0.46	60	1600	62
		135	⑫	0.44	60	1730	68
	V	110	⑬	0.37	40	1650	58
		110	⑭	0.39	42	1180	57
		110	⑮	0.39	42	1330	63

*rated data

Fan ordering information

Design	RH*
Installation position	H/Vu/Vo
Electrical connection	Supply cable variable 45cm



Type	**RH22V-2EP.WC.2R**
Article no.	**161614**

Weight [kg]	2.40

* Inlet ring not included

Control technology

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Motor protection units 1~

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Transformer-based controllers 1~

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Electronic voltage controllers 1~

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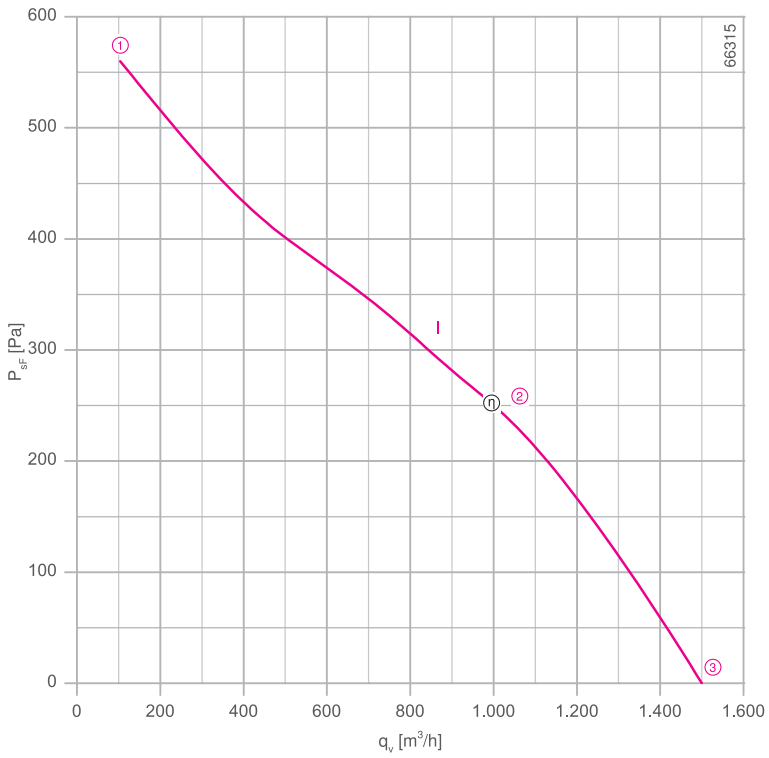
Vpro

for single phase alternating current, 2 pole

RH25V-2E

Characteristic curve



measured with inlet ring, without guard grille according to ISO 5801

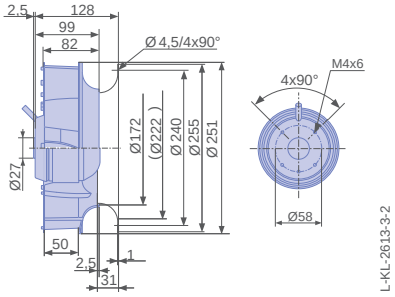
Description

Motor technology: AC
Rated voltage U_N: **1~ 230 V***
Rated frequency f_N: **50 Hz*** (60Hz data available)
Motor input power P_1: **0.20 kW***
Rated current I_N: **0.86 A***
Rated speed n_N: **2420 min^{-1}***
Current increase ΔI: 0 %
Service capacitor C_{400V}: 6.0 µF
Dynamic pressure: $p_{d2} = 2.9 \cdot 10^{-5} \cdot q_V^2$ [Pa]
Thermal class: **THCL155***
Min. permitted ambient temperature $t_{R(min)}$: -30 °C
Max. permitted ambient temperature $t_{R(max)}$: 60 °C
Motor protection: Thermal contact
Impeller : High Performance Composite Material, uncoated, black
* Rated data

Inlet ring	00407900	Page 450
Connection diagram	1360-177X SW	Page 550
System components		Page 448

Dimensions [mm]

Free-running motor impeller RH
in installation position H/Vu/Vo



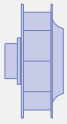
Performance data

Type	Characteristic curve	Voltage U [V]	Operating point	Current I [A]	Motor input power P_1 [W]	Speed n [min^{-1}]	Suction side sound power level L_{WA5} [dB]
RH25V-2EP.WD.1R	I	230	①	0.54	120	2720	
		230*	②	**0.86***	**200***	**2420***	67
		230	③	0.74	170	2550	78

*rated data

Fan ordering information

Design	RH*
Installation position	H/Vu/Vo
Electrical connection	Supply cable variable 45cm



Type	**RH25V-2EP.WD.1R**
Article no.	**113237**

Weight [kg]	3.10

* Inlet ring not included

Control technology

Frequency inverter Fcontrol 1~

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Motor protection units 1~

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Transformer-based controllers 1~

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Electronic voltage controllers 1~

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Vpro

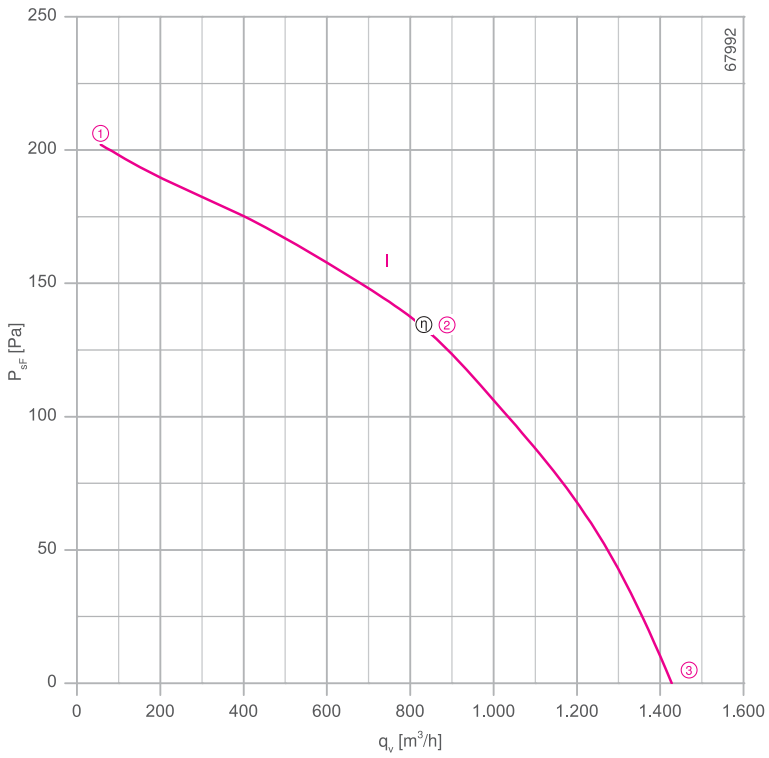
for single phase alternating current, 4 pole

RH28V-4E

Description

Motor technology: AC
Rated voltage U_N: **1~ 230 V***
Rated frequency f_N: **50 Hz***
Motor input power P_1: **0.11 kW***
Rated current I_N: **0.53 A***
Rated speed n_N: **1360 min^{-1}***
Current increase ΔI: 0 %
Service capacitor C_{400V}: 4.0 µF
Dynamic pressure: $p_{de} = 9.4 \cdot 10^{-6} \cdot q_V^2$ [Pa]
Thermal class: **THCL155***
Min. permitted ambient temperature $t_{R(min)}$: -30 °C
Max. permitted ambient temperature $t_{R(max)}$: 60 °C
Motor protection: Thermal contact
Impeller : High Performance Composite Material, uncoated, black
Conformity: CE
ErP-data
Not subject to ErP regulations (P_1< 125 W)
* Rated data

Characteristic curve

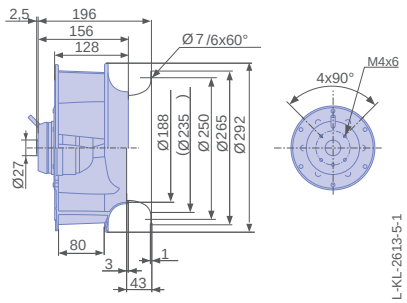


measured with inlet ring, without guard grille according to ISO 5801

Inlet ring	00275848	Page 450
Connection diagram	1360-177X SW	Page 550
System components		Page 448

Dimensions [mm]

Free-running motor impeller RH
in installation position H/Vu/Vo



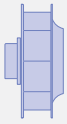
Performance data

Type	Characteristic curve	Voltage U [V]	Operating point	Current I [A]	Motor input power P_1 [W]	Speed n [min^{-1}]	Suction side sound power level L_{WA5} [dB]
RH28V-4EP.WD.1R	I	230	①	0.48	90	1420	62
		230*	②	**0.54***	**110***	**1360***	59
		230	③	0.52	100	1390	66

*rated data

Fan ordering information

Design	RH*
Installation position	H/Vu/Vo
Electrical connection	Supply cable variable 45cm



Type	**RH28V-4EP.WD.1R**
Article no.	**113298**

Weight [kg]	3.30

* Inlet ring not included

Control technology

Frequency inverter Fcontrol 1~

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Motor protection units 1~

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Transformer-based controllers 1~

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Electronic voltage controllers 1~

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V p r o

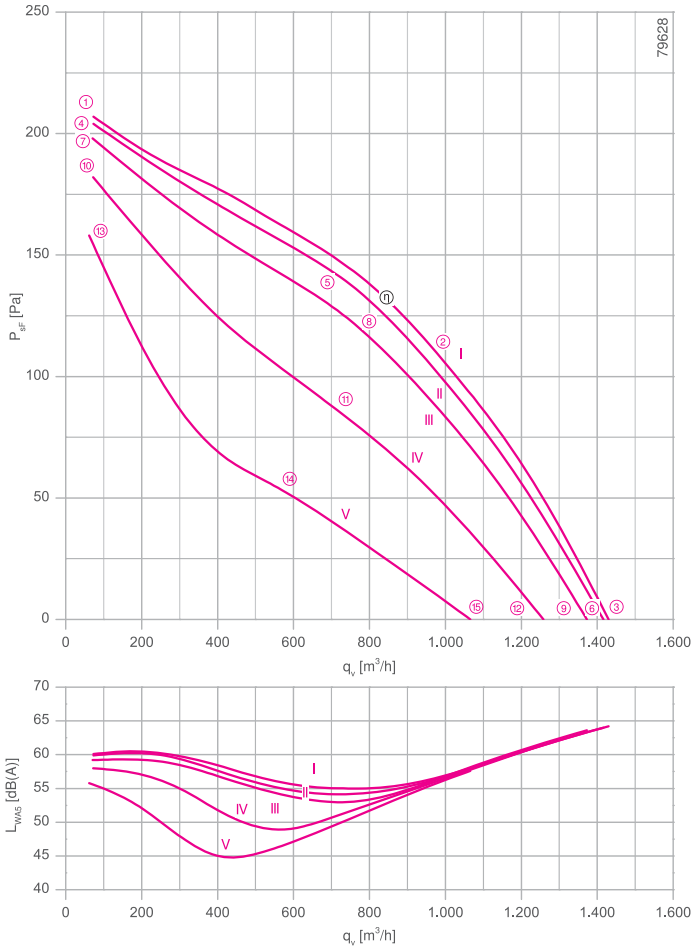
for single phase alternating current, 4 pole

R H 2 8 V - 4 E

Description

Motor technology: AC
Rated voltage U_N: **1~ 230 V±10 %***
Rated frequency f_N: **50 Hz*** (60Hz data available)
Motor input power P_1: **0.13 kW***
Rated current I_N: **0.58 A***
Rated speed n_N: **1350 min^{-1}***
Current increase ΔI: 0 %
Service capacitor C_{400V}: 5.0 µF
Dynamic pressure: $p_{d2} = 9.1 \cdot 10^{-6} \cdot q_V^2$ [Pa]
Thermal class: **THCL155***
Min. permitted ambient temperature $t_{R(min)}$: -15 °C
Max. permitted ambient temperature $t_{R(max)}$: 60 °C
Protection class: IP44
Motor protection: Thermal contact
Impeller : High Performance Composite Material, uncoated, black
Motor: 1 coat paint, pebble grey
* Rated data

Characteristic curve

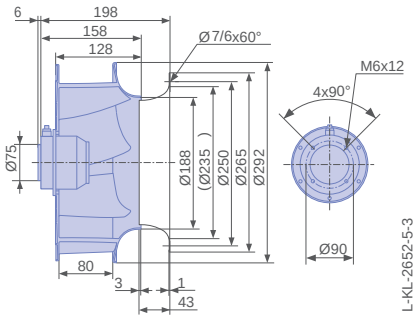


measured with inlet ring, without guard grille according to ISO 5801

Inlet ring	00275848	Page 450
Connection diagram	1360-104XA SW	Page 549
System components		Page 448

Dimensions [mm]

Free-running motor impeller RH
in installation position H/Vu/Vo



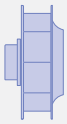
Performance data

Type	Characteristic curve	Voltage U [V]	Operating point	Current I [A]	Motor input power P_1 [W]	Speed n [min^{-1}]	Suction side sound power level L_{WA5} [dB]
RH28V-4EK.2A.1R	I	230	①	0.54	110	1410	60
		230*	②	**0.58***	**130***	**1350***	56
		230	③	0.56	120	1380	64
	II	200	④	0.42	80	1400	60
		200	⑤	0.50	100	1310	54
		200	⑥	0.46	90	1360	64
	III	170	⑦	0.37	60	1380	59
		170	⑧	0.46	80	1260	53
		170	⑨	0.42	70	1320	64
	IV	135	⑩	0.34	46	1320	58
		135	⑪	0.42	55	1100	51
		135	⑫	0.39	55	1220	62
	V	110	⑬	0.32	36	1230	56
		110	⑭	0.37	40	870	46
		110	⑮	0.36	38	1020	58

*rated data

Fan ordering information

Design	RH*
Installation position	H/Vu/Vo
Electrical connection	Supply cable lateral 105cm



Type	**RH28V-4EK.2A.1R**
Article no.	**113302**
Weight [kg]	3.30

* Inlet ring not included

Control technology

Frequency inverter Fcontrol 1~

Page 478

Motor protection units 1~

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Transformer-based controllers 1~

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Electronic voltage controllers 1~

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Vpro

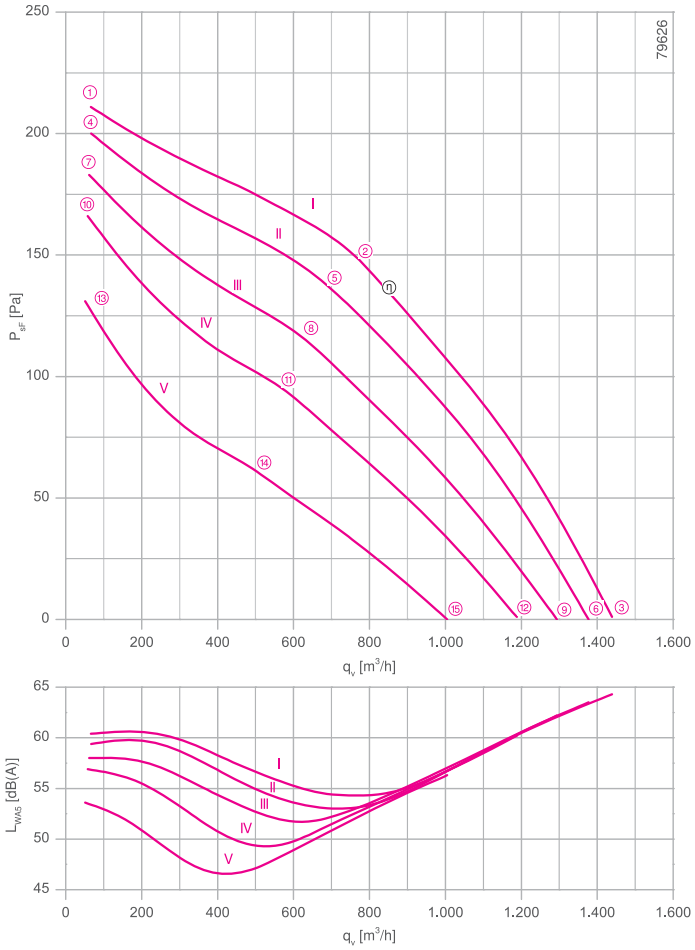
for three phase alternating current, 4 pole

RH28V-4DK

Description

Motor technology: AC
Rated voltage U_N: **3~ 230/400 V (Δ/Y) ±10 %***
Rated frequency f_N: **50 Hz*** (60Hz data available)
Motor input power P_1: **0.09 kW***
Rated current I_N: **0.42/0.24 A***
Rated speed n_N: **1390 min^{-1}***
Starting current I_A: 1.30 A / 0.75 A
Current increase ΔI: 0 %
Dynamic pressure: $p_{d2} = 9.1 \cdot 10^{-6} \cdot q_V^2$ [Pa]
Thermal class: **THCL155***
Min. permitted ambient temperature $t_{R(min)}$: -15 °C
Max. permitted ambient temperature $t_{R(max)}$: 60 °C
Protection class: IP44
Motor protection: Thermal contact
Impeller : High Performance Composite Material, uncoated, black
Motor: 1 coat paint, pebble grey
Conformity: CE
ErP-data
Not subject to ErP regulations (P_1< 125 W)
* Rated data

Characteristic curve

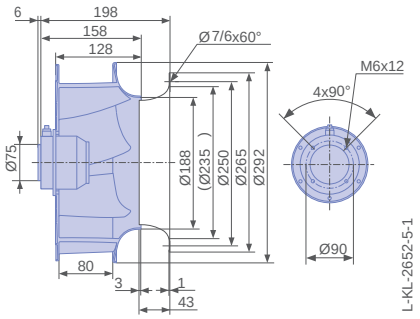


measured with inlet ring, without guard grille according to ISO 5801

Inlet ring	00275848	Page 450
Connection diagram	1360-106XA SW	Page 550
System components		Page 448

Dimensions [mm]

Free-running motor impeller RH
in installation position H/Vu/Vo



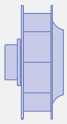
Performance data

Type	Characteristic curve	Voltage U [V]	Operating point	Current I [A]	Motor input power P_1 [W]	Speed n [min^{-1}]	Suction side sound power level L_{WA5} [dB]
RH28V-4DK.2A.1R	I	400	①	0.23	65	1440	60
		400*	②	**0.24***	**90***	**1390***	54
		400	③	0.23	80	1410	64
	II	300	④	0.16	46	1400	59
		300	⑤	0.18	70	1310	53
		300	⑥	0.17	60	1350	64
	III	230	⑦	0.13	38	1340	58
		230	⑧	0.18	60	1200	52
		230	⑨	0.15	50	1260	62
	IV	190	⑩	0.12	34	1270	57
		190	⑪	0.18	50	1090	49
		190	⑫	0.15	44	1170	60
	V	145	⑬	0.12	28	1130	54
		145	⑭	0.17	40	900	47
		145	⑮	0.15	36	990	56

*rated data

Fan ordering information

Design	RH*
Installation position	H/Vu/Vo
Electrical connection	Supply cable lateral 105cm



Type	**RH28V-4DK.2A.1R**
Article no.	**113258**
Weight [kg]	3.30

* Inlet ring not included

Control technology

Frequency inverter Fcontrol 3~

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Motor protection units 3~

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Transformer-based controllers 3~

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Electronic voltage controllers 3~

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Vpro

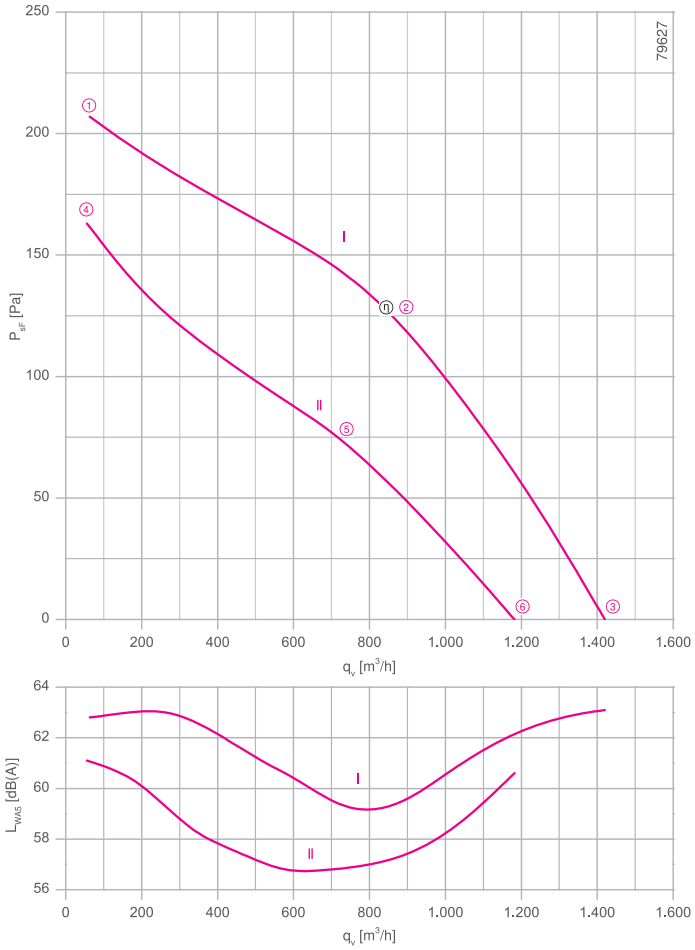
for three phase alternating current, 4-4 pole

RH28V-VD

Description

Motor technology: AC
Rated voltage U_N: **3~ 400 V (Δ/Y) ±10 %***
Rated frequency f_N: **50 Hz*** (60Hz data available)
Motor input power P_1: **0.08/0.05 kW***
Rated current I_N: **0.16/0.08 A***
Rated speed n_N: **1330/1060 min^{-1}***
Starting current I_A: 0.46 A / 0.15 A
Current increase ΔI: 0 %
Dynamic pressure: $p_{d2} = 9.1 \cdot 10^{-6} \cdot q_V^2$ [Pa]
Thermal class: **THCL155***
Min. permitted ambient temperature $t_{R(min)}$: -15 °C
Max. permitted ambient temperature $t_{R(max)}$: 60 °C
Protection class: IP44
Motor protection: Thermal contact
Impeller : High Performance Composite Material, uncoated, black
Motor: 1 coat paint, pebble grey
Conformity: CE
ErP-data
Not subject to ErP regulations (P_1< 125 W)
* Rated data

Characteristic curve



measured with inlet ring, without guard grille according to ISO 5801

Inlet ring	00275848	Page 450
Connection diagram	1360-108XA SW	Page 549
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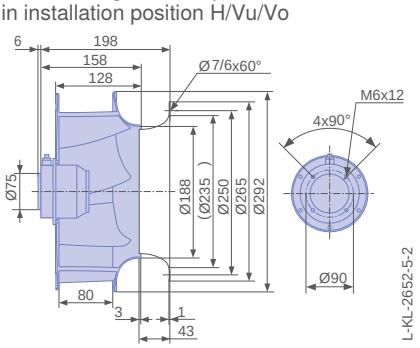
Dimensions [mm]

Free-running motor impeller RH
in installation position H/Vu/Vo



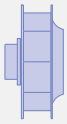
Performance data

Type	Connection	Characteristic curve	Voltage U [V]	Operating point	Current I [A]	Motor input power P_1 [W]	Speed n [min^{-1}]	Suction side sound power level L_{WA5} [dB]
RH28V-VDK.2A.1R	Δ	I	400	①	0.14	50	1410	63
			400*	②	**0.16***	**80***	**1330***	59
			400	③	0.14	65	1370	63
	Y	II	400	④	0.06	34	1250	61
			400*	⑤	**0.08***	**50***	**1060***	57
			400	⑥	0.07	44	1140	61

*rated data

Fan ordering information

Design	RH*
Installation position	H/Vu/Vo
Electrical connection	Supply cable lateral 105cm



Type	**RH28V-VDK.2A.1R**
Article no.	**113278**
Weight [kg]	3.30

* Inlet ring not included

Control technology

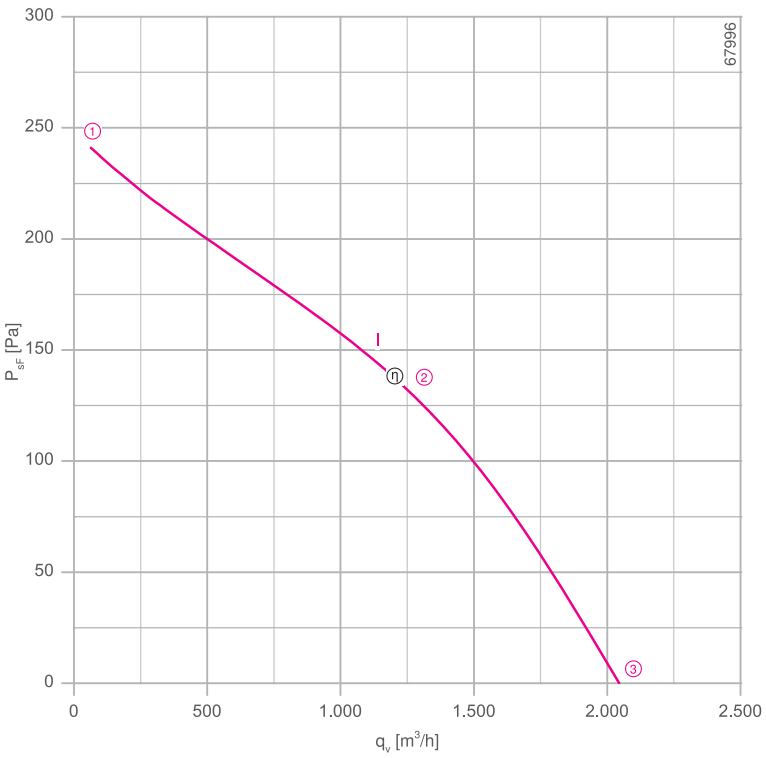
Frequency inverter Fcontrol 3~	Motor protection units 3~	Transformer-based controllers 3~	Electronic voltage controllers 3~
			
Page 484	Page 526	Page 521	Page 506

Vpro

for single phase alternating current, 4 pole

RH31V-4E

Characteristic curve



measured with inlet ring, without guard grille according to ISO 5801

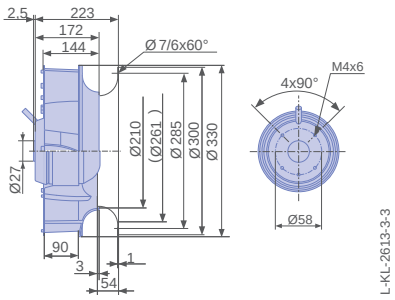
Description

Motor technology: AC
Rated voltage U_N: **1~ 230 V***
Rated frequency f_N: **50 Hz***
Motor input power P_1: **0.14 kW***
Rated current I_N: **0.62 A***
Rated speed n_N: **1240 min^{-1}***
Current increase ΔI: 0 %
Service capacitor C_{400V}: 4.0 µF
Dynamic pressure: $p_{de} = 5.8 \cdot 10^{-6} \cdot q_V^2$ [Pa]
Thermal class: **THCL155***
Min. permitted ambient temperature $t_{R(min)}$: -30 °C
Max. permitted ambient temperature $t_{R(max)}$: 60 °C
Motor protection: Thermal contact
Impeller : High Performance Composite Material, uncoated, black
* Rated data

Inlet ring	00335943	Page 450
Connection diagram	1360-177X SW	Page 550
System components		Page 448

Dimensions [mm]

Free-running motor impeller RH
in installation position H/Vu/Vo



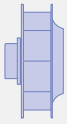
Performance data

Type	Characteristic curve	Voltage U [V]	Operating point	Current I [A]	Motor input power P_1 [W]	Speed n [min^{-1}]	Suction side sound power level L_{WA5} [dB]
RH31V-4EP.WD.1R	I	230	①	0.52	100	1370	64
		230*	②	**0.62***	**140***	**1240***	60
		230	③	0.56	120	1310	67

*rated data

Fan ordering information

Design	RH*
Installation position	H/Vu/Vo
Electrical connection	Supply cable variable 45cm



Type	**RH31V-4EP.WD.1R**
Article no.	**113299**

Weight [kg]	3.60

* Inlet ring not included

Control technology

Frequency inverter Fcontrol 1~

Page 478

Motor protection units 1~

Page 526

Transformer-based controllers 1~

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Electronic voltage controllers 1~

Page 492

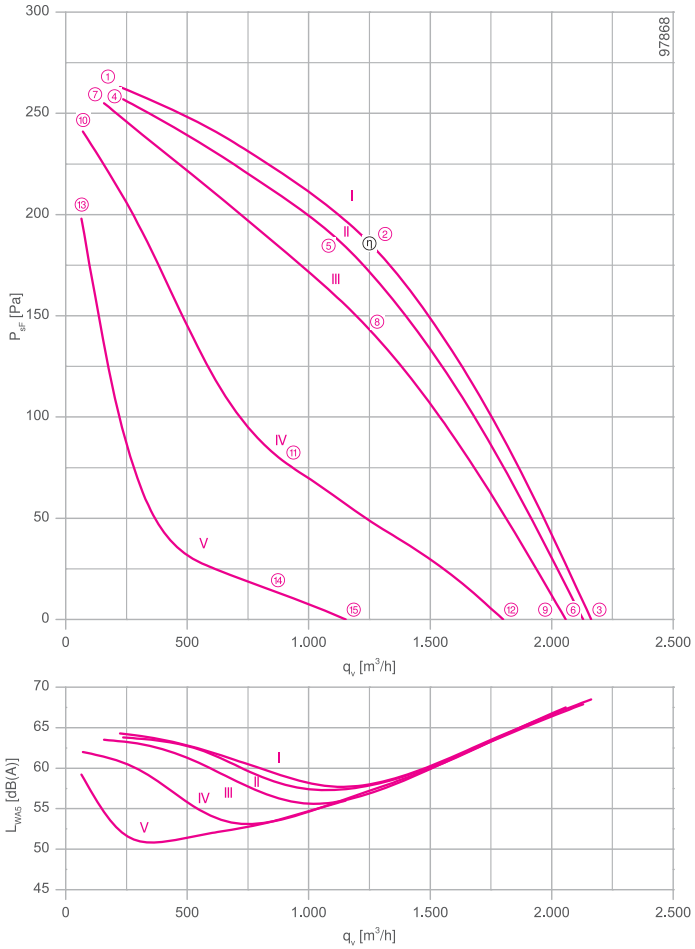
V p r o

for single phase alternating current, 4 pole

R H 3 1 V - 4 E

Description

Motor technology: AC
Rated voltage U_N: **1~ 230 V±10 %***
Rated frequency f_N: **50 Hz*** (60Hz data available)
Motor input power P_1: **0.16 kW***
Rated current I_N: **0.74 A***
Rated speed n_N: **1400 min^{-1}***
Current increase ΔI: 35 %
Service capacitor C_{400V}: 3.0 µF
Dynamic pressure: $p_{d2} = 5.7 \cdot 10^{-6} \cdot q_V^2$ [Pa]
Thermal class: **THCL155***
Min. permitted ambient temperature $t_{R(min)}$: -15 °C
Max. permitted ambient temperature $t_{R(max)}$: 60 °C
Protection class: IP54
Motor protection: Thermal contact
Impeller : High Performance Composite Material, uncoated, black
Conformity: ErP 2015, CE
ErP-Daten
Efficiency η_{statA}: 43.3 %
Efficiency: N_{actual} = 62.2 / N_{target} = 62**
* Rated data
**ErP 2015

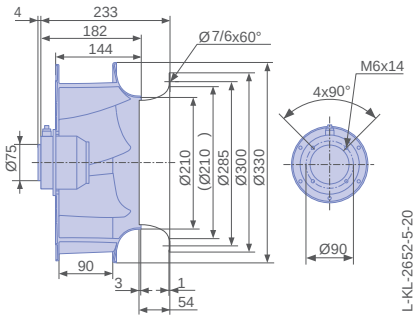


measured with inlet ring, without guard grille according to ISO 5801

Inlet ring	00335943	Page 450
Connection diagram	1360-104XA SW	Page 549
System components		Page 448

Dimensions [mm]

Free-running motor impeller RH
in installation position H/Vu/Vo



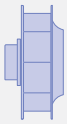
Performance data

Type	Characteristic curve	Voltage U [V]	Operating point	Current I [A]	Motor input power P_1 [W]	Speed n [min^{-1}]	Suction side sound power level L_{WA5} [dB]
RH31V-4EK.0F.1R	I	230	①	0.60	110	1450	64
		230*	②	**0.74***	**160***	**1400***	58
		230	③	0.66	130	1430	69
	II	200	④	0.54	100	1430	64
		200	⑤	0.76	140	1370	57
		200	⑥	0.62	120	1410	68
	III	170	⑦	0.50	80	1410	64
		170	⑧	0.84	140	1290	57
		170	⑨	0.66	110	1360	68
	IV	135	⑩	0.50	65	1370	62
		135	⑪	1.00	130	940	54
		135	⑫	0.82	110	1190	64
	V	110	⑬	0.58	65	1240	59
		110	⑭	0.94	95	610	53
		110	⑮	0.90	90	780	56

*rated data

Fan ordering information

Design	RH*
Installation position	H/Vu/Vo
Electrical connection	Supply cable lateral 105cm



Type	**RH31V-4EK.0F.1R**
Article no.	**161819**
Weight [kg]	4.40

* Inlet ring not included

Control technology

Frequency inverter Fcontrol 1~

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Motor protection units 1~

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Transformer-based controllers 1~

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Electronic voltage controllers 1~

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V p r o

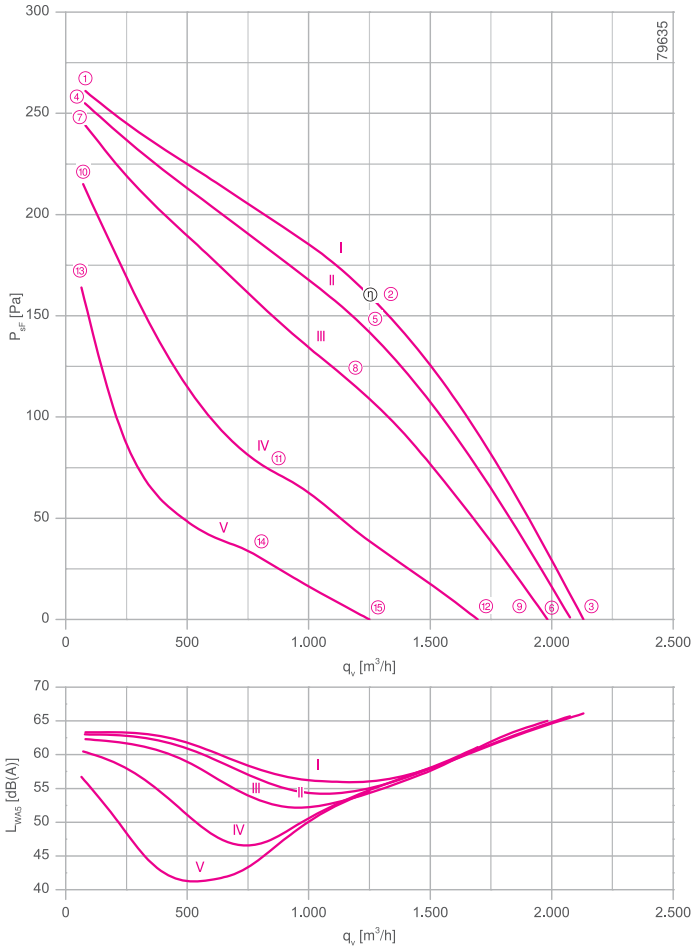
for single phase alternating current, 4 pole

R H 3 1 V - 4 E

Description

Motor technology: AC
Rated voltage U_N: **1~ 230 V±10 %***
Rated frequency f_N: **50 Hz*** (60Hz data available)
Motor input power P_1: **0.17 kW***
Rated current I_N: **0.82 A***
Rated speed n_N: **1310 min^{-1}***
Current increase ΔI: 0 %
Service capacitor C_{400V}: 6.0 µF
Dynamic pressure: $p_{d2} = 5.7 \cdot 10^{-6} \cdot q_V^2$ [Pa]
Thermal class: **THCL155***
Min. permitted ambient temperature $t_{R(min)}$: -15 °C
Max. permitted ambient temperature $t_{R(max)}$: 60 °C
Protection class: IP44
Motor protection: Thermal contact
Impeller : High Performance Composite Material, uncoated, black
Motor: 1 coat paint, pebble grey
* Rated data

Characteristic curve



measured with inlet ring, without guard grille according to ISO 5801

Inlet ring	00335943	Page 450
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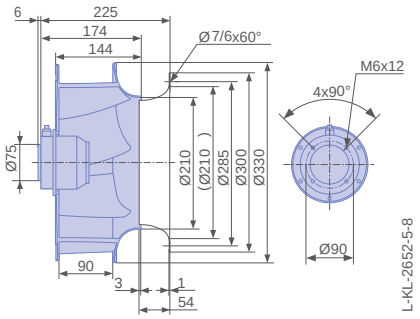
Dimensions [mm]

Free-running motor impeller RH
in installation position H/Vu/Vo



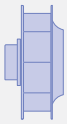
Performance data

Type	Characteristic curve	Voltage U [V]	Operating point	Current I [A]	Motor input power P_1 [W]	Speed n [min^{-1}]	Suction side sound power level L_{WA5} [dB]
RH31V-4EK.2C.1R	I	230	①	0.70	140	1410	63
		230*	②	**0.82***	**170***	**1310***	56
		230	③	0.74	160	1360	66
	II	200	④	0.56	110	1390	63
		200	⑤	0.74	140	1260	55
		200	⑥	0.66	130	1330	66
	III	170	⑦	0.50	85	1360	62
		170	⑧	0.72	120	1160	53
		170	⑨	0.62	100	1270	65
	IV	135	⑩	0.48	65	1280	61
		135	⑪	0.68	85	890	47
		135	⑫	0.60	80	1080	61
	V	110	⑬	0.48	50	1120	57
		110	⑭	0.58	60	660	42
		110	⑮	0.56	55	810	55

*rated data

Fan ordering information

Design	RH*
Installation position	H/Vu/Vo
Electrical connection	Supply cable lateral 105cm



Type	**RH31V-4EK.2C.1R**
Article no.	**113303**
Weight [kg]	4.20

* Inlet ring not included

Control technology

Frequency inverter Fcontrol 1~

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Motor protection units 1~

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Transformer-based controllers 1~

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Electronic voltage controllers 1~

Page 492

V p r o

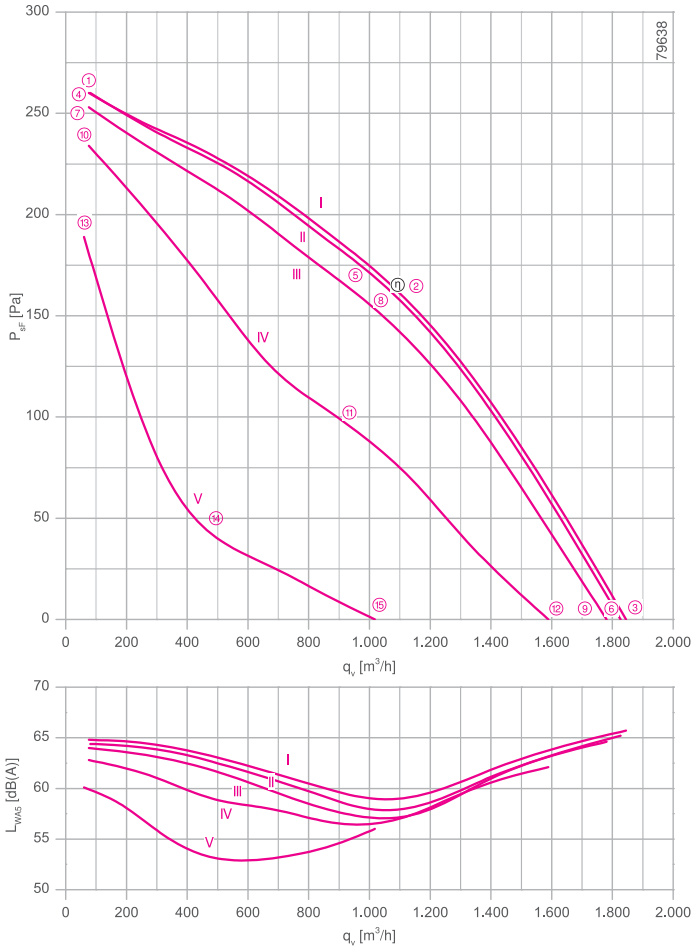
for single phase alternating current, 4 pole

R H 3 1 V - 4 E

Description

Motor technology: AC
Rated voltage U_N: **1~ 230 V±10 %***
Rated frequency f_N: **50 Hz*** (60Hz data available)
Motor input power P_1: **0.20 kW***
Rated current I_N: **1.40 A***
Rated speed n_N: **1390 min^{-1}***
Starting current I_A: 3.00 A
Current increase ΔI: 0 %
Service capacitor C_{400V}: 4.0 µF
Dynamic pressure: $p_{d2} = 5.7 \cdot 10^{-6} \cdot q_V^2$ [Pa]
Thermal class: **THCL155***
Min. permitted ambient temperature $t_{R(min)}$: -15 °C
Max. permitted ambient temperature $t_{R(max)}$: 60 °C
Protection class: IP44
Motor protection: Thermal contact
Impeller : High Performance Composite Material, uncoated, black
Motor: 1 coat paint, pebble grey
* Rated data

Characteristic curve

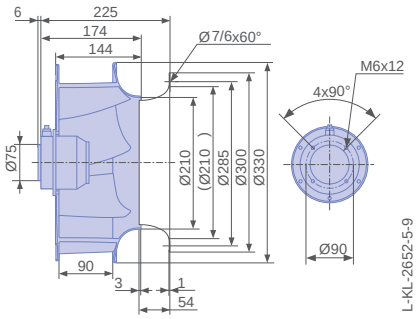


measured with inlet ring, without guard grille according to ISO 5801

- Inlet ring 00335943 Page 450
- Connection diagram 1360-104XA SW Page 549
- System components Page 448

Dimensions [mm]

Free-running motor impeller RH
in installation position H/Vu/Vo



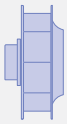
Performance data

Type	Characteristic curve	Voltage U [V]	Operating point	Current I [A]	Motor input power P_1 [W]	Speed n [min^{-1}]	Suction side sound power level L_{WA5} [dB]
RH31V-4EK.2F.1R	I	230	①	1.35	170	1430	65
		230*	②	**1.40***	**200***	**1390***	59
		230	③	1.35	190	1410	66
	II	200	④	1.00	120	1430	64
		200	⑤	1.10	160	1380	58
		200	⑥	1.05	140	1390	65
	III	170	⑦	0.78	95	1410	64
		170	⑧	0.98	130	1330	57
		170	⑨	0.90	120	1360	65
	IV	135	⑩	0.72	80	1350	63
		135	⑪	1.10	120	1110	57
		135	⑫	0.96	100	1210	62
	V	110	⑬	0.78	70	1210	60
		110	⑭	1.05	85	720	54
		110	⑮	1.00	80	790	56

*rated data

Fan ordering information

Design	RH*
Installation position	H/Vu/Vo
Electrical connection	Supply cable lateral 105cm



Type	**RH31V-4EK.2F.1R**
Article no.	**113369**
Weight [kg]	5.00

* Inlet ring not included

Control technology

Frequency inverter Fcontrol 1~

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Motor protection units 1~

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Transformer-based controllers 1~

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Electronic voltage controllers 1~

Page 492

V p r o

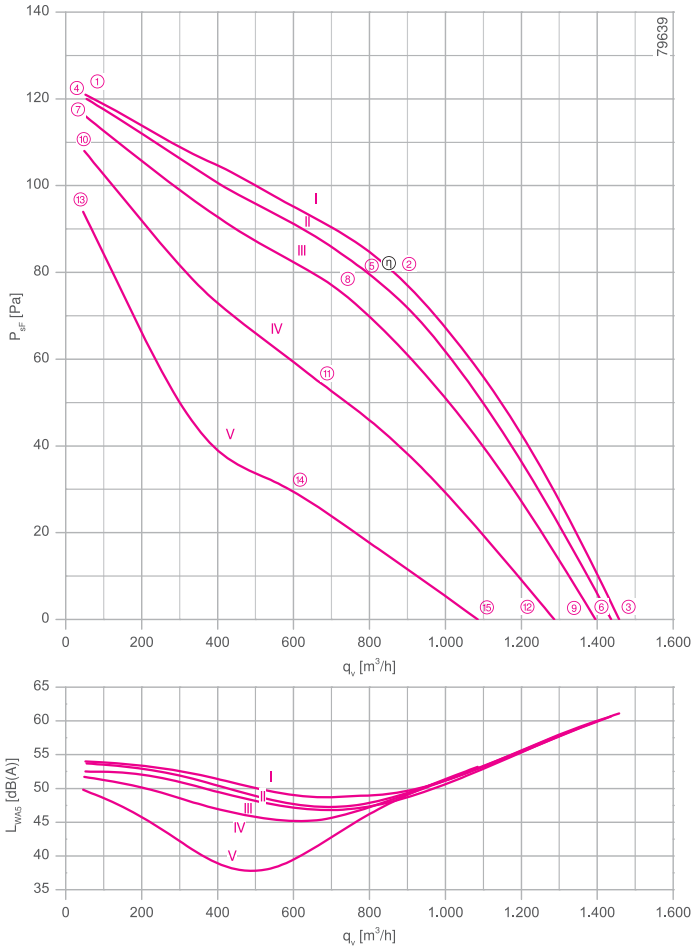
for single phase alternating current, 6 pole

R H 3 1 V - 6 E

Description

Motor technology: AC
Rated voltage U_N: **1~ 230 V***
Rated frequency f_N: **50 Hz*** (60Hz data available)
Motor input power P_1: **0.08 kW***
Rated current I_N: **0.42 A***
Rated speed n_N: **920 min^{-1}***
Starting current I_A: 0.70 A
Current increase ΔI: 0 %
Service capacitor C_{400V}: 2.0 µF
Dynamic pressure: $p_{d2} = 5.7 \cdot 10^{-6} \cdot q_V^2$ [Pa]
Thermal class: **THCL155***
Min. permitted ambient temperature $t_{R(min)}$: -15 °C
Max. permitted ambient temperature $t_{R(max)}$: 60 °C
Protection class: IP44
Motor protection: Thermal contact
Impeller : High Performance Composite Material, uncoated, black
Motor: 1 coat paint, pebble grey
Conformity: CE
ErP-data
Not subject to ErP regulations (P_1< 125 W)
* Rated data

Characteristic curve



measured with inlet ring, without guard grille according to ISO 5801

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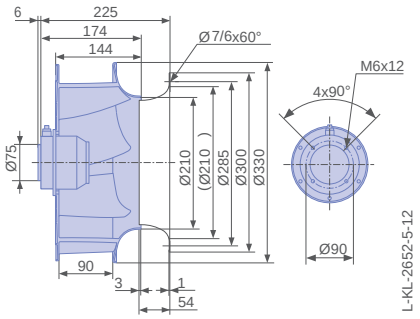
Dimensions [mm]

Free-running motor impeller RH
in installation position H/Vu/Vo



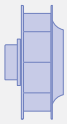
Performance data

Type	Characteristic curve	Voltage U [V]	Operating point	Current I [A]	Motor input power P_1 [W]	Speed n [min^{-1}]	Suction side sound power level L_{WA5} [dB]
RH31V-6EK.2A.1R	I	230	①	0.40	70	960	54
		230*	②	**0.42***	**80***	**920***	49
		230	③	0.42	75	940	61
	II	200	④	0.32	50	950	54
		200	⑤	0.37	65	900	48
		200	⑥	0.34	60	920	61
	III	170	⑦	0.27	40	940	53
		170	⑧	0.34	55	860	48
		170	⑨	0.31	46	900	60
	IV	135	⑩	0.24	28	900	52
		135	⑪	0.33	40	740	45
		135	⑫	0.29	36	830	58
	V	110	⑬	0.23	22	840	50
		110	⑮	0.28	28	700	53
		110	⑭	0.31	30	580	38

*rated data

Fan ordering information

Design	RH*
Installation position	H/Vu/Vo
Electrical connection	Supply cable lateral 105cm



Type	**RH31V-6EK.2A.1R**
Article no.	**113304**
Weight [kg]	3.60

* Inlet ring not included

Control technology

Frequency inverter Fcontrol 1~

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Motor protection units 1~

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Transformer-based controllers 1~

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Electronic voltage controllers 1~

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Vpro

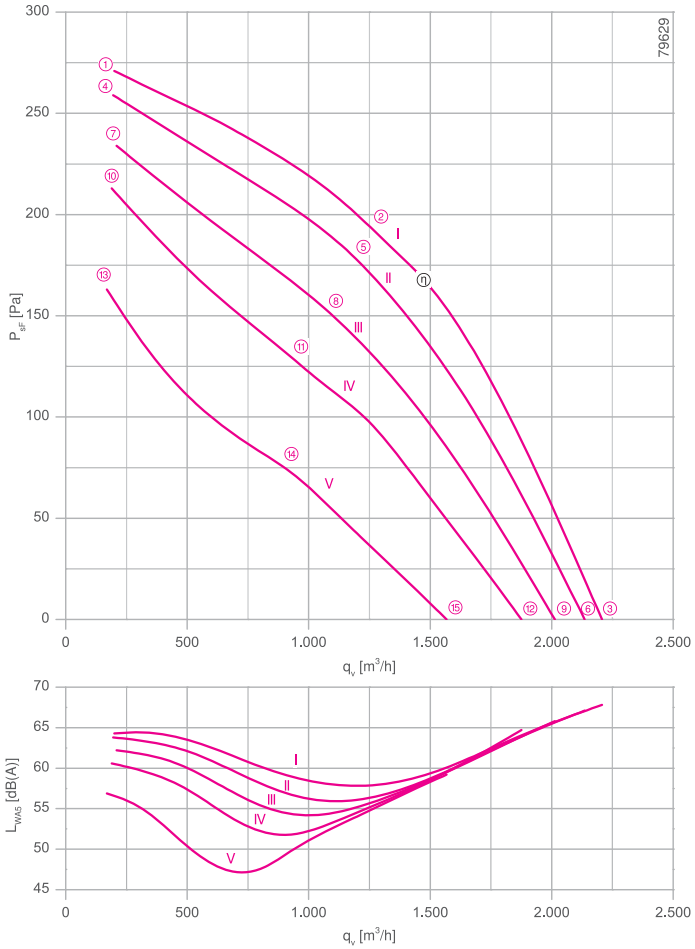
for three phase alternating current, 4 pole

R H 3 1 V - 4 D

Description

Motor technology: AC
Rated voltage U_N: **3~ 230/400 V (Δ/Y) ±10 %***
Rated frequency f_N: **50 Hz*** (60Hz data available)
Motor input power P_1: **0.15 kW***
Rated current I_N: **0.64/0.37 A***
Rated speed n_N: **1410 min^{-1}***
Starting current I_A: 2.80 A / 1.70 A
Current increase ΔI: 0 %
Dynamic pressure: $p_{d2} = 5.7 \cdot 10^{-6} \cdot q_V^2$ [Pa]
Thermal class: **THCL155***
Min. permitted ambient temperature $t_{R(min)}$: -15 °C
Max. permitted ambient temperature $t_{R(max)}$: 60 °C
Protection class: IP54
Motor protection: Thermal contact
Impeller : High Performance Composite Material, uncoated, black
Conformity: ErP 2015, CE
ErP-Daten
Efficiency η_{statA}: 45.6 %
Efficiency: N_{actual} = 64.6 / N_{target} = 62**
* Rated data
**ErP 2015

Characteristic curve



measured with inlet ring, without guard grille according to ISO 5801

Inlet ring	00335943	Page 450
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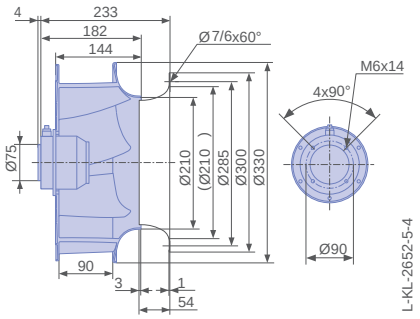
Dimensions [mm]

Free-running motor impeller RH
in installation position H/Vu/Vo



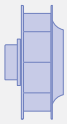
Performance data

Type	Characteristic curve	Voltage U [V]	Operating point	Current I [A]	Motor input power P_1 [W]	Speed n [min^{-1}]	Suction side sound power level L_{WA5} [dB]
RH31V-4DK.0F.1R	I	400	①	0.34	100	1450	64
		400*	②	**0.37***	**150***	**1410***	58
		400	③	0.35	130	1440	68
	II	300	④	0.25	85	1420	64
		300	⑤	0.32	130	1350	56
		300	⑥	0.28	110	1390	67
	III	230	⑦	0.24	80	1350	62
		230	⑧	0.34	120	1240	56
		230	⑨	0.28	95	1310	66
	IV	190	⑩	0.25	70	1290	61
		190	⑪	0.36	110	1130	53
		190	⑫	0.30	85	1220	65
	V	145	⑬	0.27	60	1130	57
		145	⑭	0.35	80	920	53
		145	⑮	0.31	70	1030	59

*rated data

Fan ordering information

Design	RH*
Installation position	H/Vu/Vo
Electrical connection	Supply cable lateral 105cm



Type	**RH31V-4DK.0F.1R**
Article no.	**113296**
Weight [kg]	4.40

* Inlet ring not included

Control technology

Frequency inverter Fcontrol 3~

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Motor protection units 3~

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Transformer-based controllers 3~

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Electronic voltage controllers 3~

Page 506

Vpro

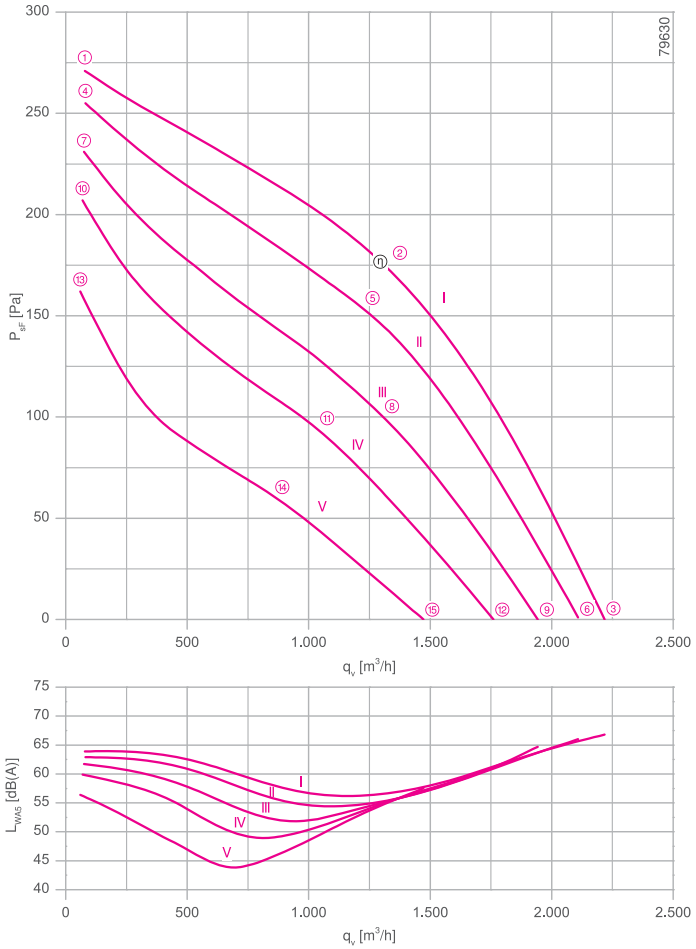
for three phase alternating current, 4 pole

RH31V-4D

Description

Motor technology: AC
Rated voltage U_N: **3~ 230/400 V (Δ/Y) ±10 %***
Rated frequency f_N: **50 Hz*** (60Hz data available)
Motor input power P_1: **0.15 kW***
Rated current I_N: **0.61/0.35 A***
Rated speed n_N: **1370 min^{-1}***
Starting current I_A: 2.20 A / 1.20 A
Current increase ΔI: 0 %
Dynamic pressure: $p_{d2} = 5.7 \cdot 10^{-6} \cdot q_V^2$ [Pa]
Thermal class: **THCL155***
Min. permitted ambient temperature $t_{R(min)}$: -15 °C
Max. permitted ambient temperature $t_{R(max)}$: 60 °C
Protection class: IP44
Motor protection: Thermal contact
Impeller : High Performance Composite Material, uncoated, black
Motor: 1 coat paint, pebble grey
Conformity: ErP 2015, CE
ErP-Daten
Efficiency η_{statA}: 42.9 %
Efficiency: $N_{actual} = 62.0$ / $N_{target} = 62$**
* Rated data
**ErP 2015

Characteristic curve



measured with inlet ring, without guard grille according to ISO 5801

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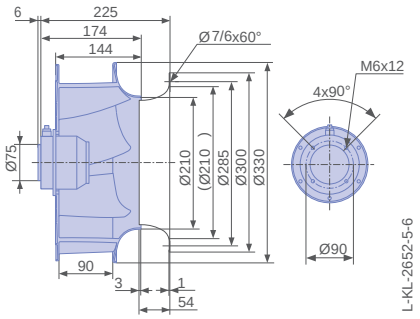
Dimensions [mm]

Free-running motor impeller RH
in installation position H/Vu/Vo



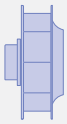
Performance data

Type	Characteristic curve	Voltage U [V]	Operating point	Current I [A]	Motor input power P_1 [W]	Speed n [min^{-1}]	Suction side sound power level L_{WA5} [dB]
RH31V-4DK.2C.1R	I	400	①	0.32	95	1440	64
		400*	②	**0.35***	**150***	**1370***	57
		400	③	0.33	120	1400	67
	II	300	④	0.23	75	1390	63
		300	⑤	0.30	130	1280	54
		300	⑥	0.26	100	1330	66
	III	230	⑦	0.20	60	1330	62
		230	⑧	0.30	110	1150	54
		230	⑨	0.26	85	1230	65
	IV	190	⑩	0.20	55	1250	60
		190	⑪	0.30	90	1030	50
		190	⑫	0.26	75	1130	61
	V	145	⑬	0.20	46	1110	56
		145	⑭	0.28	65	830	45
		145	⑮	0.25	60	950	58

*rated data

Fan ordering information

Design	RH*
Installation position	H/Vu/Vo
Electrical connection	Supply cable lateral 105cm



Type	**RH31V-4DK.2C.1R**
Article no.	**113259**
Weight [kg]	4.20

* Inlet ring not included

Control technology

Frequency inverter Fcontrol 3~

Page 484

Motor protection units 3~

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Transformer-based controllers 3~

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Electronic voltage controllers 3~

Page 506

Vpro

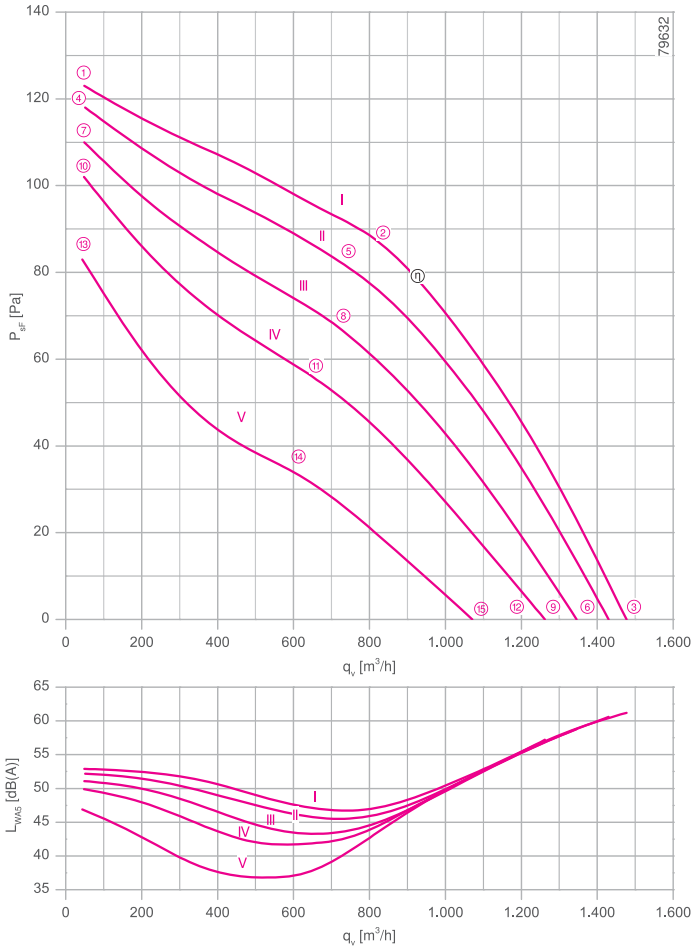
for three phase alternating current, 6 pole

RH31V-6D

Description

Motor technology: AC
Rated voltage U_N: **3~ 230/400 V (Δ/Y) ±10 %***
Rated frequency f_N: **50 Hz*** (60Hz data available)
Motor input power P_1: **0.08 kW***
Rated current I_N: **0.42/0.24 A***
Rated speed n_N: **930 min^{-1}***
Starting current I_A: 0.90 A / 0.55 A
Current increase ΔI: 0 %
Dynamic pressure: $p_{d2} = 5.7 \cdot 10^{-6} \cdot q_V^2$ [Pa]
Thermal class: **THCL155***
Min. permitted ambient temperature $t_{R(min)}$: -15 °C
Max. permitted ambient temperature $t_{R(max)}$: 60 °C
Protection class: IP44
Motor protection: Thermal contact
Impeller : High Performance Composite Material, uncoated, black
Motor: 1 coat paint, pebble grey
Conformity: CE
ErP-data
Not subject to ErP regulations (P_1< 125 W)
* Rated data

Characteristic curve



measured with inlet ring, without guard grille according to ISO 5801

Inlet ring	00335943	Page 450
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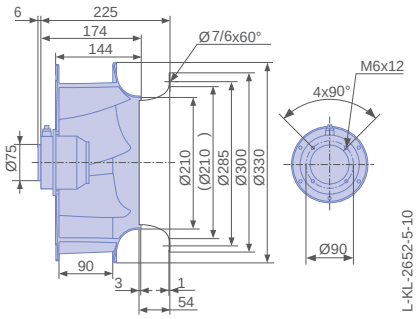
Dimensions [mm]

Free-running motor impeller RH
in installation position H/Vu/Vo



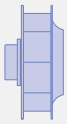
Performance data

Type	Characteristic curve	Voltage U [V]	Operating point	Current I [A]	Motor input power P_1 [W]	Speed n [min^{-1}]	Suction side sound power level L_{WA5} [dB]
RH31V-6DK.2A.1R	I	400	①	0.24	60	970	53
		400*	②	**0.24***	**80***	**930***	47
		400	③	0.24	70	950	61
	II	300	④	0.16	38	940	52
		300	⑤	0.18	55	890	46
		300	⑥	0.17	46	920	61
	III	230	⑦	0.13	28	910	51
		230	⑧	0.15	42	820	45
		230	⑨	0.14	36	860	59
	IV	190	⑩	0.11	22	880	50
		190	⑪	0.14	36	750	43
		190	⑫	0.13	30	810	57
	V	145	⑬	0.10	18	790	47
		145	⑭	0.13	26	610	37
		145	⑮	0.12	22	690	52

*rated data

Fan ordering information

Design	RH*
Installation position	H/Vu/Vo
Electrical connection	Supply cable lateral 105cm



Type	**RH31V-6DK.2A.1R**
Article no.	**113260**
Weight [kg]	3.60

* Inlet ring not included

Control technology

Frequency inverter Fcontrol 3~

Page 484

Motor protection units 3~

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Transformer-based controllers 3~

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Electronic voltage controllers 3~

Page 506

Vpro

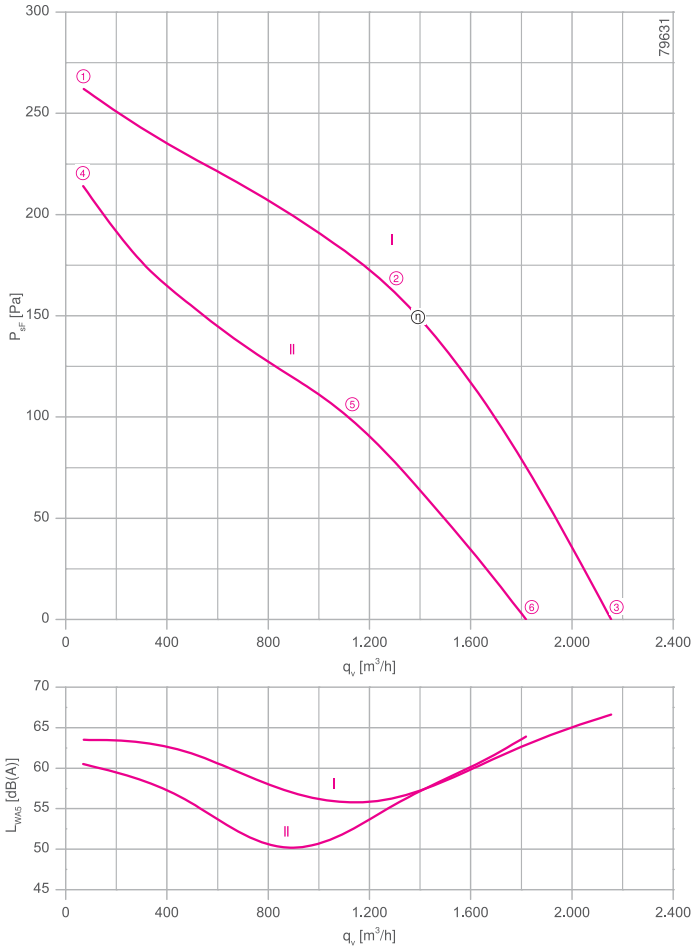
for three phase alternating current, 4-4 pole

RH31V-VD

Description

Motor technology: AC
Rated voltage U_N: **3~ 400 V (Δ/Y) ±10 %***
Rated frequency f_N: **50 Hz*** (60Hz data available)
Motor input power P_1: **0,14/0,095 kW***
Rated current I_N: **0,29/0,15 A***
Rated speed n_N: **1340/1090 min^{-1}***
Starting current I_A: 1.00 A / 0.32 A
Dynamic pressure: $p_{d2} = 5.7 \cdot 10^{-6} \cdot q_V^2$ [Pa]
Thermal class: **THCL155***
Min. permitted ambient temperature $t_{R(min)}$: -15 °C
Max. permitted ambient temperature $t_{R(max)}$: 60 °C
Protection class: IP44
Motor protection: Thermal contact
Impeller : High Performance Composite Material, uncoated, black
Motor: 1 coat paint, pebble grey
Conformity: ErP 2015, CE
ErP-Daten
Efficiency η_{statA}: 42.8 %
Efficiency: N_{actual} = 62.4 / N_{target} = 62**
* Rated data
**ErP 2015

Characteristic curve



measured with inlet ring, without guard grille according to ISO 5801

Inlet ring	00335943	Page 450
Connection diagram	1360-108XA SW	Page 549
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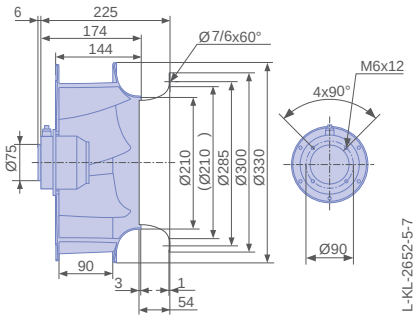
Dimensions [mm]

Free-running motor impeller RH
in installation position H/Vu/Vo



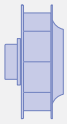
Performance data

Type	Connection	Characteristic curve	Voltage U [V]	Operating point	Current I [A]	Motor input power P_1 [W]	Speed n [min^{-1}]	Suction side sound power level L_{WA5} [dB]
RH31V-VDK.2C.1R	Δ	I	400	①	0.24	80	1430	64
			400*	②	**0.29***	**140***	**1340***	56
			400	③	0.27	110	1380	67
	Y	II	400	④	0.10	55	1290	61
			400*	⑤	**0.15***	**95***	**1090***	52
			400	⑥	0.13	80	1180	64

*rated data

Fan ordering information

Design	RH*
Installation position	H/Vu/Vo
Electrical connection	Supply cable lateral 105cm



Type	**RH31V-VDK.2C.1R**
Article no.	**113276**
Weight [kg]	4.20

* Inlet ring not included

Control technology

Frequency inverter Fcontrol 3~

Page 484

Motor protection units 3~

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Transformer-based controllers 3~

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Electronic voltage controllers 3~

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Vpro

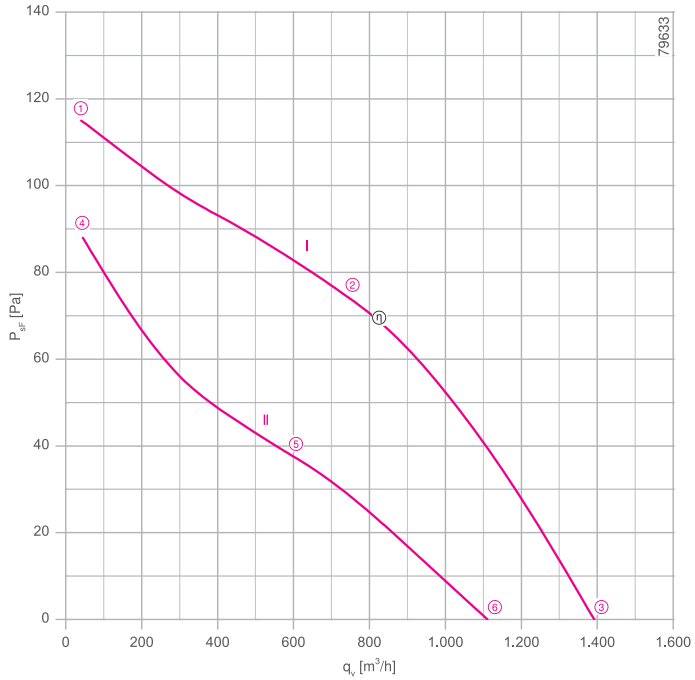
for three phase alternating current, 6-6 pole

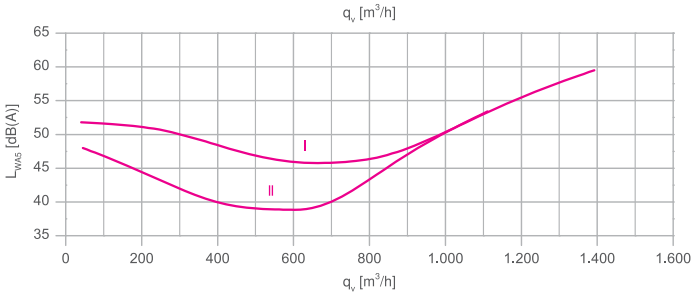
RH31V-SD

Description

Motor technology: AC
Rated voltage U_N: **3~ 400 V (Δ/Y) ±10 %***
Rated frequency f_N: **50 Hz*** (60Hz data available)
Motor input power P_1: **0.05/0.03 kW***
Rated current I_N: **0.11/0.05 A***
Rated speed n_N: **870/ 640 min^{-1}***
Starting current I_A: 0.22 A / 0.07 A
Dynamic pressure: $p_{d2} = 5.7 \cdot 10^{-6} \cdot q_V^2$ [Pa]
Thermal class: **THCL155***
Min. permitted ambient temperature $t_{R(min)}$: -15 °C
Max. permitted ambient temperature $t_{R(max)}$: 60 °C
Protection class: IP44
Motor protection: Thermal contact
Impeller : High Performance Composite Material, uncoated, black
Motor: 1 coat paint, pebble grey
Conformity: CE
ErP-data
Not subject to ErP regulations (P_1< 125 W)
* Rated data

Characteristic curve





measured with inlet ring, without guard grille according to ISO 5801

Inlet ring	00335943	Page 450
Connection diagram	1360-108XA SW	Page 549
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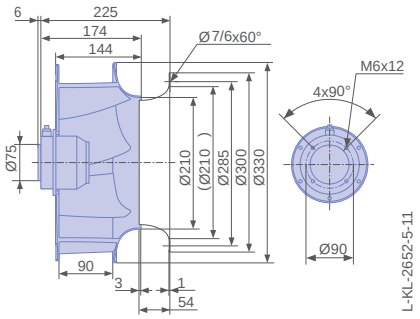
Dimensions [mm]

Free-running motor impeller RH
in installation position H/Vu/Vo



Performance data

Type	Connection	Characteristic curve	Voltage U [V]	Operating point	Current I [A]	Motor input power P_1 [W]	Speed n [min^{-1}]	Suction side sound power level L_{WA5} [dB]
RH31V-SDK.2A.1R	Δ	I	400	①	0.10	34	940	52
			400*	②	**0.11***	**50***	**870***	47
			400	③	0.10	44	900	60
	Y	II	400	④	0.04	20	820	48
			400*	⑤	**0.05***	**30***	**640***	39
			400	⑥	0.04	26	720	53

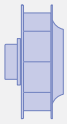
*rated data

Fan ordering information

Design RH*

Installation position H/Vu/Vo

Electrical connection Supply cable lateral 105cm



Type **RH31V-SDK.2A.1R**

Article no. **113277**

Weight [kg] 3.60

* Inlet ring not included

Control technology

Frequency inverter Fcontrol 3~

Page 484

Motor protection units 3~

Page 526

Transformer-based controllers 3~

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Electronic voltage controllers 3~

Page 506

V p r o

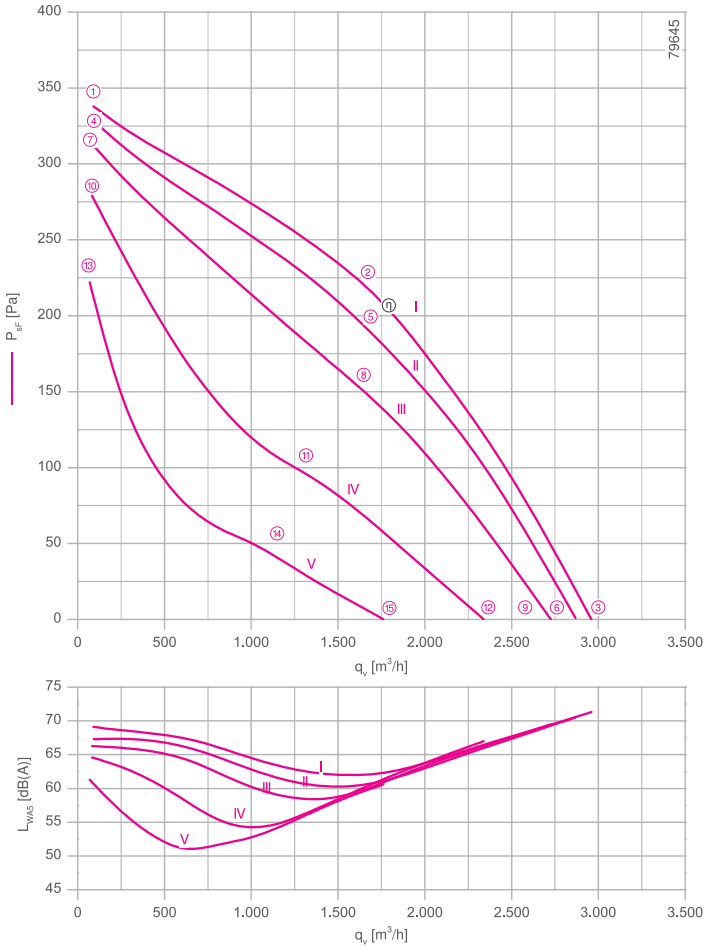
for single phase alternating current, 4 pole

R H 3 5 V - 4 E

Description

Motor technology: AC
Rated voltage U_N: **1~ 230 V±10 %***
Rated frequency f_N: **50 Hz***
Motor input power P_1: **0.28 kW***
Rated current I_N: **1.25 A***
Rated speed n_N: **1340 min^{-1}***
Starting current I_A: 3.00 A
Current increase ΔI: 10 %
Service capacitor C_{400V}: 5.0 µF
Dynamic pressure: $p_{d2} = 3.6 \cdot 10^{-6} \cdot q_V^2$ [Pa]
Thermal class: **THCL155***
Min. permitted ambient temperature $t_{R(min)}$: -15 °C
Max. permitted ambient temperature $t_{R(max)}$: 60 °C
Protection class: IP44
Motor protection: Thermal contact
Impeller : High Performance Composite Material, uncoated, black
Motor: 1 coat paint, pebble grey
* Rated data

Characteristic curve

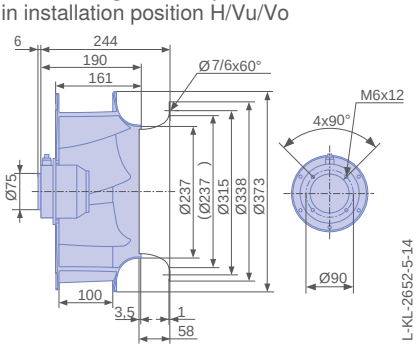


measured with inlet ring, without guard grille according to ISO 5801

Inlet ring	00275850	Page 450
Connection diagram	1360-104XA SW	Page 549
System components		Page 448

Dimensions [mm]

Free-running motor impeller RH
in installation position H/Vu/Vo



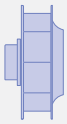
Performance data

Type	Characteristic curve	Voltage U [V]	Operating point	Current I [A]	Motor input power P_1 [W]	Speed n [min^{-1}]	Suction side sound power level L_{WA5} [dB]
RH35V-4EK.2F.1R	I	230	①	0.88	200	1430	69
		230*	②	**1.25***	**280***	**1340***	62
		230	③	1.10	250	1380	71
	II	200	④	0.84	170	1400	67
		200	⑤	1.25	250	1290	61
		200	⑥	1.10	220	1340	71
	III	170	⑦	0.82	140	1370	66
		170	⑧	1.30	220	1190	59
		170	⑨	1.15	190	1270	70
	IV	135	⑩	0.86	120	1300	65
		135	⑪	1.35	180	940	54
		135	⑫	1.20	160	1100	67
	V	110	⑬	0.88	95	1160	61
		110	⑭	1.20	130	720	55
		110	⑮	1.15	120	840	61

*rated data

Fan ordering information

Design	RH*
Installation position	H/Vu/Vo
Electrical connection	Supply cable lateral 105cm



Type	**RH35V-4EK.2F.1R**
Article no.	**113370**
Weight [kg]	5.50

* Inlet ring not included

Control technology

Frequency inverter Fcontrol 1~

Page 478

Motor protection units 1~

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Transformer-based controllers 1~

Page 517

Electronic voltage controllers 1~

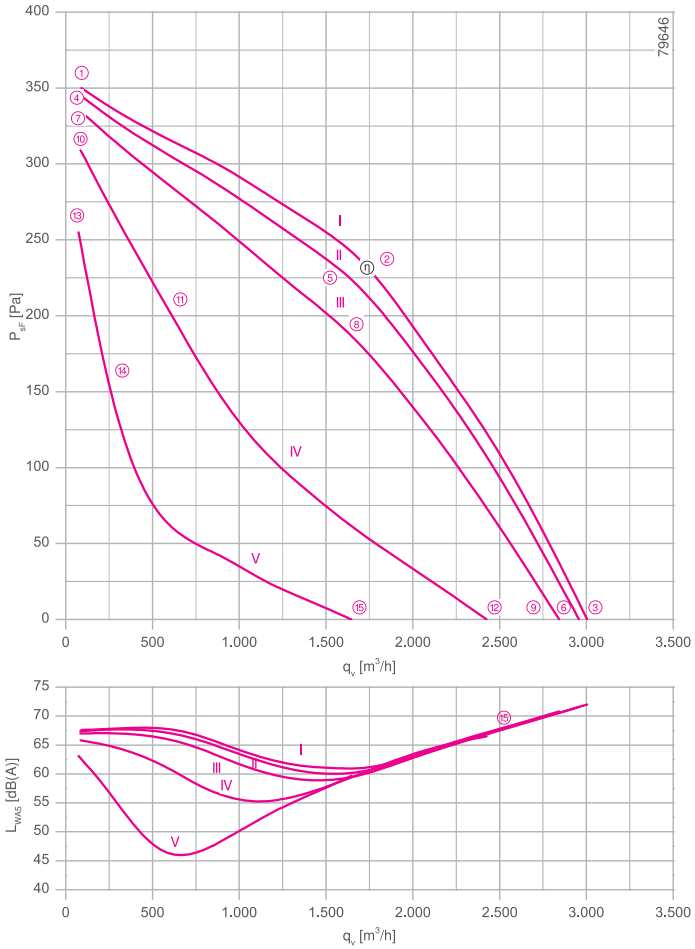
Page 492

V p r o

for single phase alternating current, 4 pole

R H 3 5 V - 4 E

Characteristic curve



measured with inlet ring, without guard grille according to ISO 5801

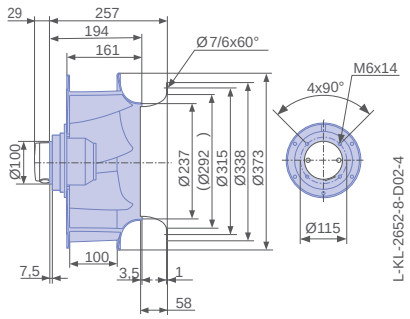
Description

Motor technology: AC
Rated voltage U_N: **1~ 230 V±10 %***
Rated frequency f_N: **50 Hz***
Motor input power P_1: **0.27 kW***
Rated current I_N: **1.30 A***
Rated speed n_N: **1390 min^{-1}***
Current increase ΔI: 25 %
Service capacitor C_{400V}: 6.0 µF
Dynamic pressure: $p_{d2} = 3.6 \cdot 10^{-6} \cdot q_V^2$ [Pa]
Thermal class: **THCL155***
Min. permitted ambient temperature $t_{R(min)}$: -15 °C
Max. permitted ambient temperature $t_{R(max)}$: 60 °C
Protection class: IP54
Motor protection: Thermal contact
Impeller : High Performance Composite Material, uncoated, black
Motor: 1 coat paint, pebble grey
Conformity: ErP 2013, CE
ErP-Daten
Efficiency η_{statA}: 42.6 %
Efficiency: $N_{actual} = 59.1$ / $N_{target} = 58$**
* Rated data
**ErP 2013

Inlet ring	00275850	Page 450
Connection diagram	1360-104XA SW	Page 549
System components		Page 448

Dimensions [mm]

Free-running motor impeller RH
in installation position H/Vu/Vo



Performance data

Type	Characteristic curve	Voltage U [V]	Operating point	Current I [A]	Motor input power P_1 [W]	Speed n [min^{-1}]	Suction side sound power level L_{WA5} [dB]
RH35V-4EK.4C.1R	I	230	①	1.00	170	1450	68
		230*	②	**1.30***	**270***	**1390***	61
		230	③	1.20	230	1410	72
	II	200	④	0.82	140	1440	67
		200	⑤	1.30	240	1350	60
		200	⑥	1.10	200	1390	72
	III	170	⑦	0.78	120	1420	67
		170	⑧	1.40	220	1280	59
		170	⑨	1.15	190	1340	71
	IV	135	⑩	0.82	110	1360	66
		135	⑪	1.60	190	940	54
		135	⑫	1.35	170	1150	67
	V	110	⑬	0.96	100	1240	63
		110	⑭	1.45	130	650	46
		110	⑮	1.40	130	780	60

*rated data

Fan ordering information

Design	RH*
Installation position	H/Vu/Vo
Electrical connection	Cable box D02 with cable lateral 105cm

Type	**RH35V-4EK.4C.1R**
Article no.	**113305**
Weight [kg]	6.50

* Inlet ring not included

Control technology

Frequency inverter Fcontrol 1~

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Motor protection units 1~

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Transformer-based controllers 1~

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Electronic voltage controllers 1~

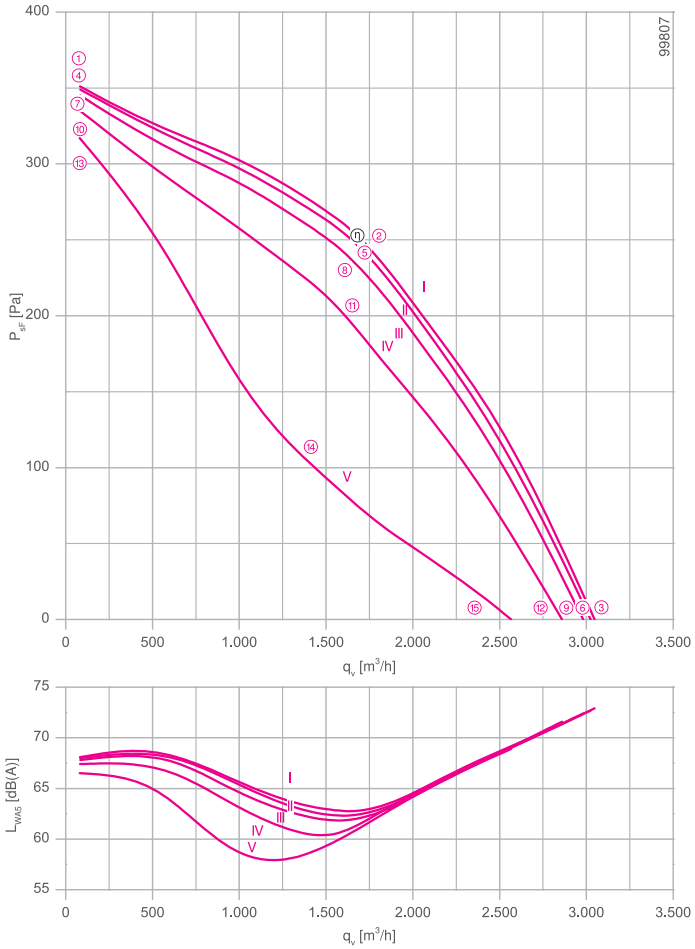
Page 492

Vpro

for single phase alternating current, 4 pole

R H 3 5 V - 4 E

Characteristic curve



measured with inlet ring, without guard grille according to ISO 5801

Description

Motor technology: AC
Rated voltage U_N: **1~ 230 V±10 %***
Rated frequency f_N: **50 Hz*** (60Hz data available)
Motor input power P_1: **0.29 kW***
Rated current I_N: **1.50 A***
Rated speed n_N: **1440 min^{-1}***
Current increase ΔI: 30 %
Service capacitor C_{400V}: 8.0 µF
Dynamic pressure: $p_{dz} = 3.6 \cdot 10^{-6} \cdot q_V^2$ [Pa]
Thermal class: **THCL155***
Min. permitted ambient temperature $t_{R(min)}$: -15 °C
Max. permitted ambient temperature $t_{R(max)}$: 60 °C
Protection class: IP54
Motor protection: Thermal contact
Impeller : High Performance Composite Material, uncoated, black
Motor: 1 coat paint, pebble grey
Conformity: ErP 2013, CE
ErP-Daten
Efficiency η_{statA}: 42.6 %
Efficiency: $N_{actual} = 58.8 / N_{target} = 58$**
* Rated data
**ErP 2013

Inlet ring	00275850	Page 450
Connection diagram	1360-104XA SW	Page 549
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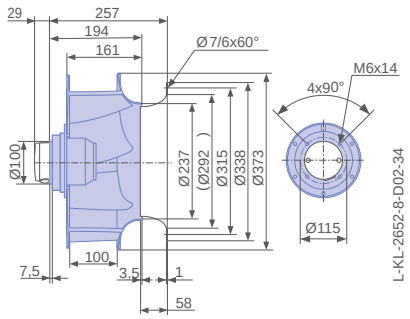
Dimensions [mm]

Free-running motor impeller RH
in installation position H/Vu/Vo



Performance data

Type	Characteristic curve	Voltage U [V]	Operating point	Current I [A]	Motor input power P_1 [W]	Speed n [min^{-1}]	Suction side sound power level L_{WA5} [dB]
RH35V-4EK.4F.1R	I	230	①	1.30	190	1470	68
		230*	②	**1.50***	**290***	**1440***	63
		230	③	1.40	260	1450	73
	II	200	④	0.90	150	1470	68
		200	⑤	1.35	260	1430	62
		200	⑥	1.20	220	1440	73
	III	170	⑦	0.80	130	1460	68
		170	⑧	1.45	240	1400	62
		170	⑨	1.20	200	1420	72
	IV	135	⑩	0.86	110	1440	67
		135	⑪	1.75	230	1310	61
		135	⑫	1.40	190	1370	72
	V	110	⑬	0.96	100	1400	67
		110	⑭	2.40	230	990	62
		110	⑮	1.80	190	1230	69

*rated data

Fan ordering information

Design	RH*
Installation position	H/Vu/Vo
Electrical connection	Cable box D02 with cable lateral 105cm

Type	**RH35V-4EK.4F.1R**
Article no.	**160176**

Weight [kg] 7.90

* Inlet ring not included

Control technology

Frequency inverter Fcontrol 1~

Page 478

Motor protection units 1~

Page 526

Transformer-based controllers 1~

Page 517

Electronic voltage controllers 1~

Page 492

Vpro

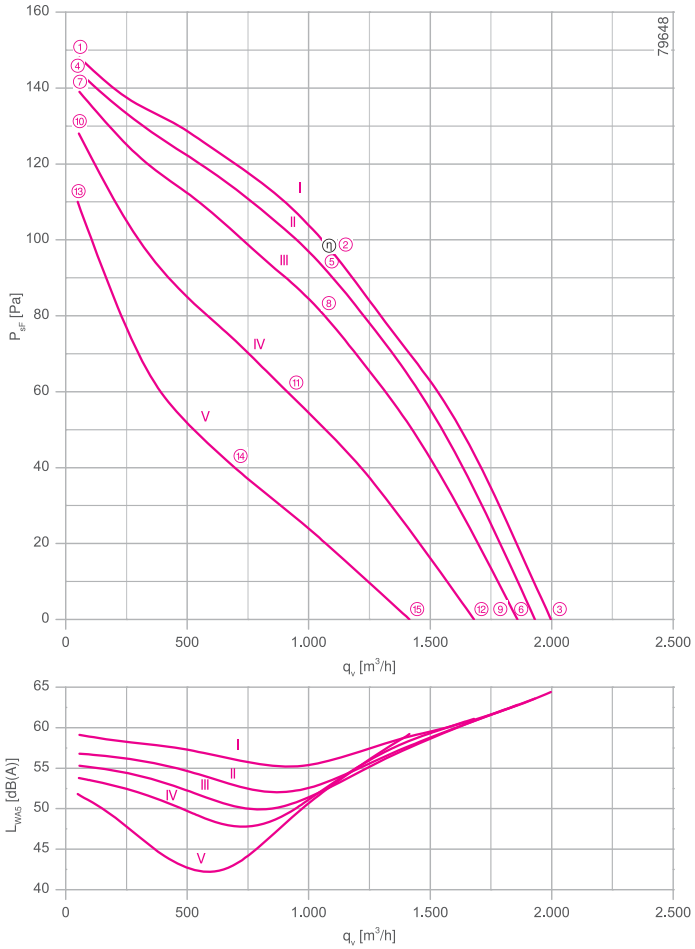
for single phase alternating current, 6 pole

RH 35V-6E

Description

Motor technology: AC
Rated voltage U_N: **1~ 230 V±10 %***
Rated frequency f_N: **50 Hz*** (60Hz data available)
Motor input power P_1: **0.11 kW***
Rated current I_N: **0.48 A***
Rated speed n_N: **910 min^{-1}***
Starting current I_A: 1.00 A
Current increase ΔI: 0 %
Service capacitor C_{400V}: 4.0 µF
Dynamic pressure: $p_{d2} = 3.6 \cdot 10^{-6} \cdot q_v^2$ [Pa]
Thermal class: **THCL155***
Min. permitted ambient temperature $t_{R(min)}$: -15 °C
Max. permitted ambient temperature $t_{R(max)}$: 60 °C
Protection class: IP44
Motor protection: Thermal contact
Impeller : High Performance Composite Material, uncoated, black
Motor: 1 coat paint, pebble grey
Conformity: CE
ErP-data
Not subject to ErP regulations (P_1< 125 W)
* Rated data

Characteristic curve



measured with inlet ring, without guard grille according to ISO 5801

Inlet ring	00275850	Page 450
Connection diagram	1360-104XA SW	Page 549
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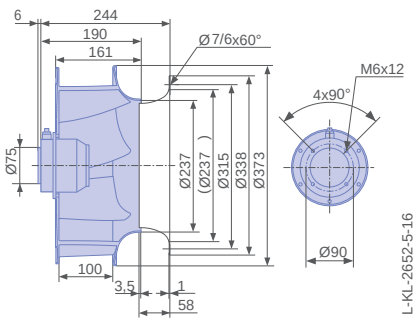
Dimensions [mm]

Free-running motor impeller RH
in installation position H/Vu/Vo



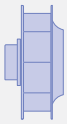
Performance data

Type	Characteristic curve	Voltage U [V]	Operating point	Current I [A]	Motor input power P_1 [W]	Speed n [min^{-1}]	Suction side sound power level L_{WA5} [dB]
RH35V-6EK.2C.1R	I	230	①	0.44	95	950	59
		230*	②	**0.48***	**110***	**910***	56
		230	③	0.46	100	930	64
	II	200	④	0.36	70	940	57
		200	⑤	0.46	90	880	53
		200	⑥	0.42	85	910	64
	III	170	⑦	0.32	55	930	55
		170	⑧	0.44	75	840	52
		170	⑨	0.39	65	880	63
	IV	135	⑩	0.30	42	890	54
		135	⑪	0.42	55	730	48
		135	⑫	0.38	50	790	61
	V	110	⑬	0.29	32	820	52
		110	⑭	0.40	44	580	43
		110	⑮	0.37	40	670	59

*rated data

Fan ordering information

Design	RH*
Installation position	H/Vu/Vo
Electrical connection	Supply cable lateral 105cm



Type	**RH35V-6EK.2C.1R**
Article no.	**113371**
Weight [kg]	4.70

* Inlet ring not included

Control technology

Frequency inverter Fcontrol 1~

Page 478

Motor protection units 1~

Page 526

Transformer-based controllers 1~

Page 517

Electronic voltage controllers 1~

Page 492

Vpro

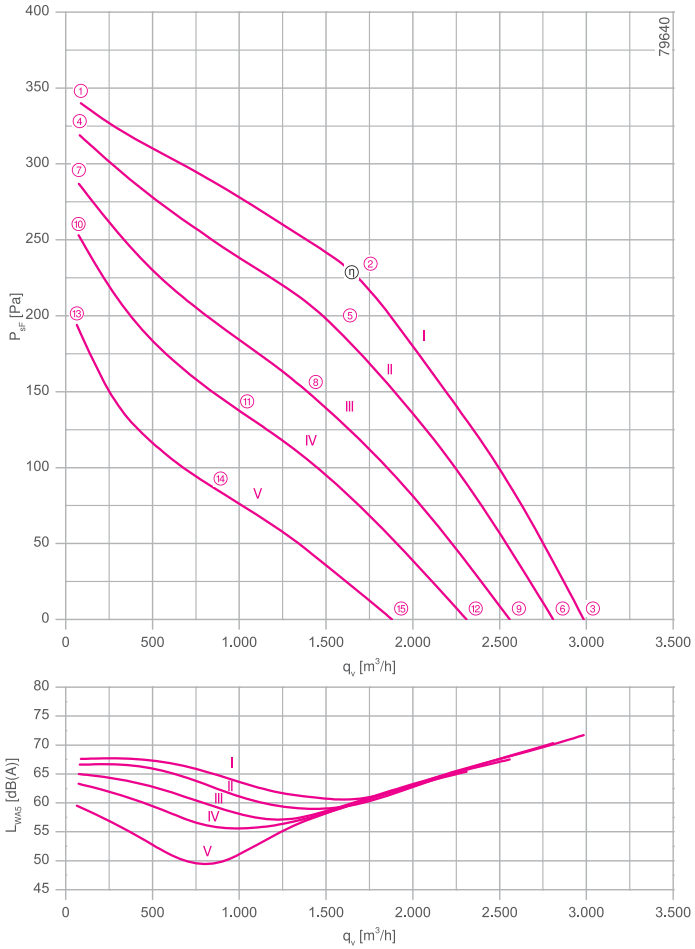
for three phase alternating current, 4 pole

R H 3 5 V - 4 D

Description

Motor technology: AC
Rated voltage U_N: **3~ 230/400 V (Δ/Y) ±10 %***
Rated frequency f_N: **50 Hz*** (60Hz data available)
Motor input power P_1: **0.24 kW***
Rated current I_N: **0.87/0.50 A***
Rated speed n_N: **1350 min^{-1}***
Starting current I_A: 3.40 A / 2.00 A
Current increase ΔI: 0 %
Dynamic pressure: $p_{d2} = 3.6 \cdot 10^{-6} \cdot q_V^2$ [Pa]
Thermal class: **THCL155***
Min. permitted ambient temperature $t_{R(min)}$: -15 °C
Max. permitted ambient temperature $t_{R(max)}$: 60 °C
Protection class: IP44
Motor protection: Thermal contact
Impeller : High Performance Composite Material, uncoated, black
Motor: 1 coat paint, pebble grey
Conformity: ErP 2015, CE
ErP-Daten
Efficiency η_{statA}: 45.0 %
Efficiency: N_{actual} = 62.0 / N_{target} = 62**
* Rated data
**ErP 2015

Characteristic curve



measured with inlet ring, without guard grille according to ISO 5801

Inlet ring	00275850	Page 450
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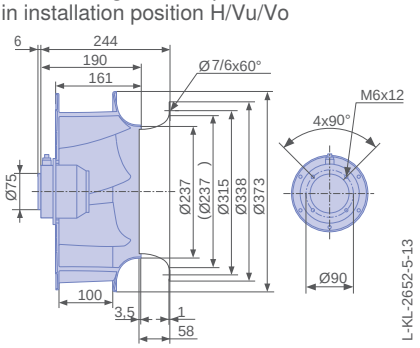
Dimensions [mm]

Free-running motor impeller RH
in installation position H/Vu/Vo



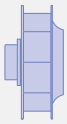
Performance data

Type	Characteristic curve	Voltage U [V]	Operating point	Current I [A]	Motor input power P_1 [W]	Speed n [min^{-1}]	Suction side sound power level L_{WA5} [dB]
RH35V-4DK.2F.1R	I	400	①	0.44	140	1430	68
		400*	②	**0.50***	**240***	**1350***	61
		400	③	0.48	200	1390	72
	II	300	④	0.33	110	1390	67
		300	⑤	0.46	200	1260	59
		300	⑥	0.42	170	1310	70
	III	230	⑦	0.31	100	1310	65
		230	⑧	0.48	170	1130	57
		230	⑨	0.42	150	1190	68
	IV	190	⑩	0.32	90	1240	63
		190	⑪	0.48	140	1010	57
		190	⑫	0.42	130	1080	65
	V	145	⑬	0.33	75	1080	60
		145	⑭	0.46	100	810	50
		145	⑮	0.42	95	890	62

*rated data

Fan ordering information

Design	RH*
Installation position	H/Vu/Vo
Electrical connection	Supply cable lateral 105cm



Type	**RH35V-4DK.2F.1R**
Article no.	**113252**
Weight [kg]	5.50

* Inlet ring not included

Control technology

Frequency inverter Fcontrol 3~

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Motor protection units 3~

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Transformer-based controllers 3~

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Electronic voltage controllers 3~

Page 506

Vpro

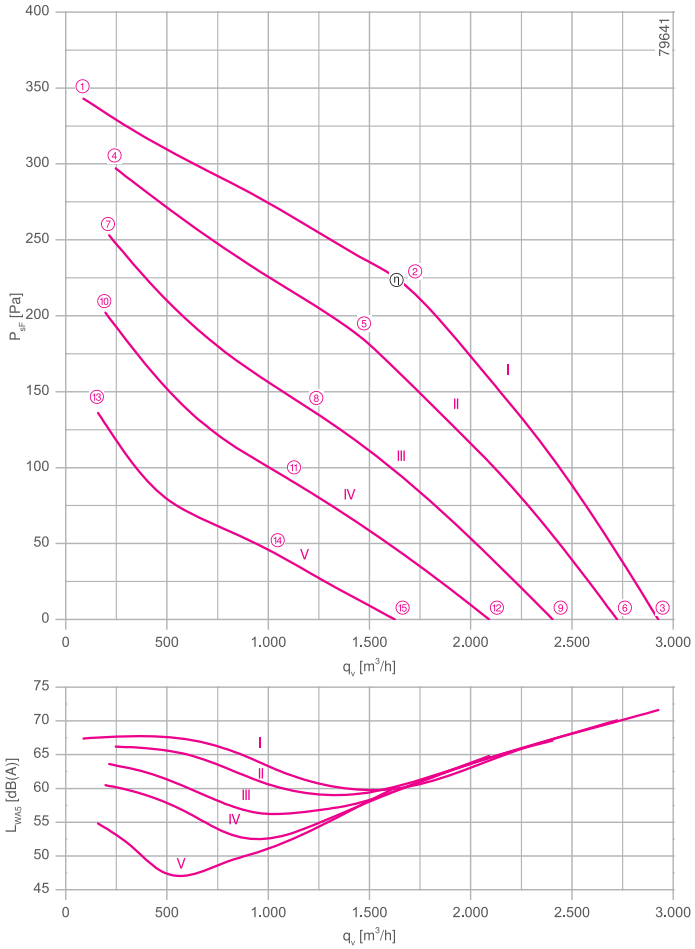
for three phase alternating current, 4 pole

RH35V-4D

Description

Motor technology: AC
Rated voltage U_N: **3~ 230/400 V (Δ/Y) ±10 %***
Rated frequency f_N: **50 Hz***
Motor input power P_1: **0.24 kW***
Rated current I_N: **0.76/0.44 A***
Rated speed n_N: **1340 min^{-1}***
Starting current I_A: 2.40 A / 1.40 A
Dynamic pressure: $p_{d2} = 3.6 \cdot 10^{-6} \cdot q_V^2$ [Pa]
Thermal class: **THCL155***
Min. permitted ambient temperature $t_{R(min)}$: -15 °C
Max. permitted ambient temperature $t_{R(max)}$: 60 °C
Protection class: IP54
Motor protection: Thermal contact
Impeller : High Performance Composite Material, uncoated, black
Motor: 1 coat paint, pebble grey
Conformity: ErP 2015, CE
ErP-Daten
Efficiency η_{statA}: 44.9 %
Efficiency: N_{actual} = 62.0 / N_{target} = 62**
* Rated data
**ErP 2015

Characteristic curve



measured with inlet ring, without guard grille according to ISO 5801

Inlet ring	00275850	Page 450
Connection diagram	1360-106XA SW	Page 549
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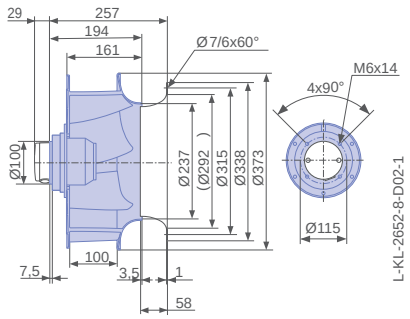
Dimensions [mm]

Free-running motor impeller RH
in installation position H/Vu/Vo



Performance data

Type	Characteristic curve	Voltage U [V]	Operating point	Current I [A]	Motor input power P_1 [W]	Speed n [min^{-1}]	Suction side sound power level L_{WA5} [dB]
RH35V-4DK.4A.1R	I	400	①	0.34	130	1430	67
		400*	②	**0.44***	**240***	**1340***	60
		400	③	0.39	190	1370	72
	II	300	④	0.31	130	1340	66
		300	⑤	0.44	200	1220	59
		300	⑥	0.38	170	1280	70
	III	230	⑦	0.32	110	1240	64
		230	⑧	0.46	160	1040	57
		230	⑨	0.40	140	1140	67
	IV	190	⑩	0.34	100	1110	61
		190	⑪	0.46	130	880	53
		190	⑫	0.42	120	990	65
	V	145	⑬	0.34	75	910	55
		145	⑭	0.40	90	680	49
		145	⑮	0.37	85	770	60

*rated data

Fan ordering information

Design	RH*
Installation position	H/Vu/Vo
Electrical connection	Cable box D02 with cable lateral 105cm

Type	**RH35V-4DK.4A.1R**
Article no.	**113261**
Weight [kg]	5.50

* Inlet ring not included

Control technology

Frequency inverter Fcontrol 3~

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Motor protection units 3~

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Transformer-based controllers 3~

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Electronic voltage controllers 3~

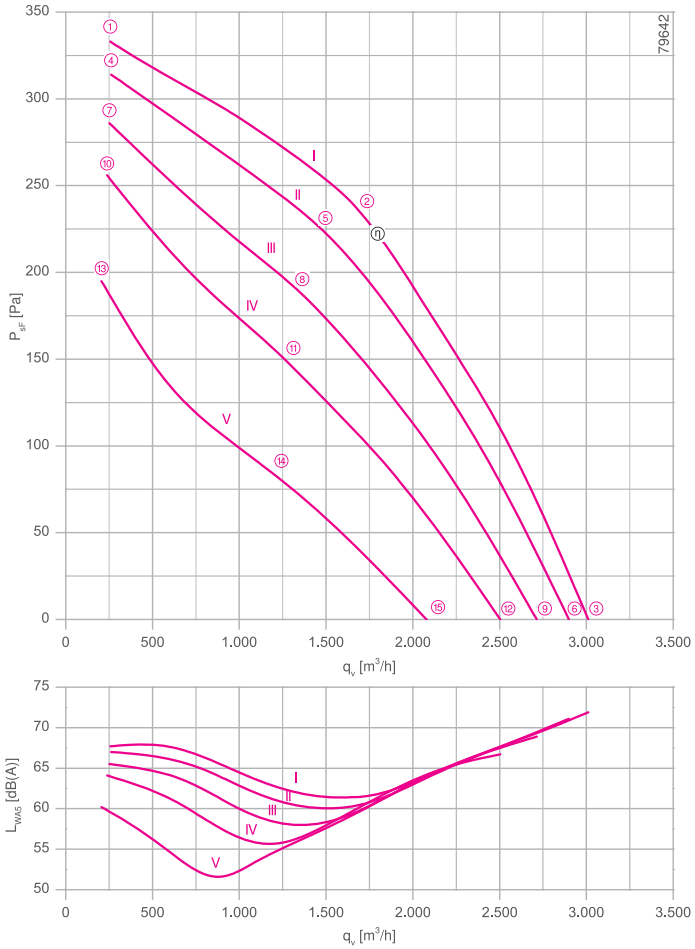
Page 506

V p r o

for three phase alternating current, 4 pole

R H 3 5 V - 4 D

Characteristic curve



measured with inlet ring, without guard grille according to ISO 5801

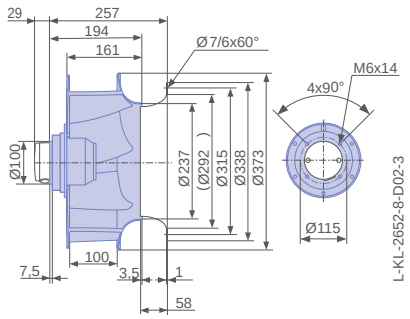
Description

Motor technology: AC
Rated voltage U_N: **3~ 230/400 V (Δ/Y) ±10 %***
Rated frequency f_N: **50 Hz*** (60Hz data available)
Motor input power P_1: **0.25 kW***
Rated current I_N: **1,10/0,64 A***
Rated speed n_N: **1400 min^{-1}***
Starting current I_A: 4.00 A / 2.40 A
Current increase ΔI: 0 %
Dynamic pressure: $p_{d2} = 3.6 \cdot 10^{-6} \cdot q_V^2$ [Pa]
Thermal class: **THCL155***
Min. permitted ambient temperature $t_{R(min)}$: -15 °C
Max. permitted ambient temperature $t_{R(max)}$: 60 °C
Protection class: IP54
Motor protection: Thermal contact
Impeller : High Performance Composite Material, uncoated, black
Motor: 1 coat paint, pebble grey
Conformity: ErP 2015, CE
ErP-Daten
Efficiency η_{statA}: 45.6 %
Efficiency: N_{actual} = 62.5 / N_{target} = 62**
* Rated data
**ErP 2015

Inlet ring	00275850	Page 450
Connection diagram	1360-106XA SW	Page 549
System components		Page 448

Dimensions [mm]

Free-running motor impeller RH
in installation position H/Vu/Vo



Performance data

Type	Characteristic curve	Voltage U [V]	Operating point	Current I [A]	Motor input power P_1 [W]	Speed n [min^{-1}]	Suction side sound power level L_{WA5} [dB]
RH35V-4DK.4C.1R	I	400	①	0.58	160	1440	68
		400*	②	**0.64***	**250***	**1400***	61
		400	③	0.62	210	1420	72
	II	300	④	0.42	140	1400	67
		300	⑤	0.54	210	1330	61
		300	⑥	0.48	180	1370	71
	III	230	⑦	0.40	120	1340	66
		230	⑧	0.56	180	1220	58
		230	⑨	0.48	160	1280	69
	IV	190	⑩	0.42	110	1270	64
		190	⑪	0.58	160	1110	56
		190	⑫	0.50	140	1180	67
	V	145	⑬	0.44	90	1110	60
		145	⑭	0.56	110	890	53
		145	⑮	0.52	110	990	64

*rated data

Fan ordering information

Design	RH*
Installation position	H/Vu/Vo
Electrical connection	Cable box D02 with cable lateral 105cm

Type	**RH35V-4DK.4C.1R**
Article no.	**113451**
Weight [kg]	6.50

* Inlet ring not included

Control technology

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Motor protection units 3~

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Transformer-based controllers 3~

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Electronic voltage controllers 3~

Page 506

V p r o

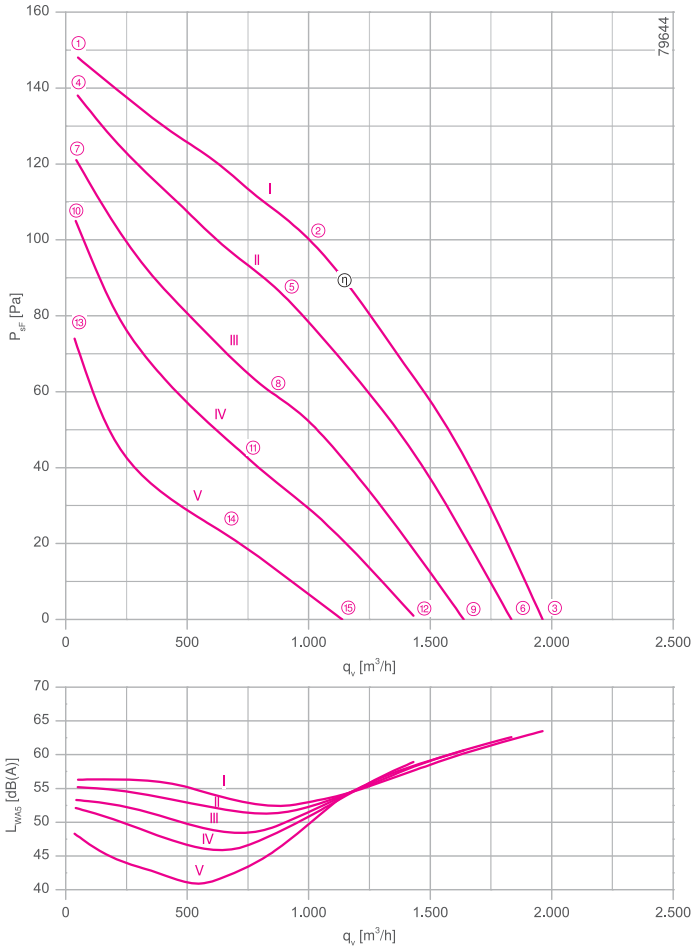
for three phase alternating current, 6 pole

R H 3 5 V - 6 D

Description

Motor technology: AC
Rated voltage U_N: **3~ 230/400 V (Δ/Y) ±10 %***
Rated frequency f_N: **50 Hz*** (60Hz data available)
Motor input power P_1: **0.10 kW***
Rated current I_N: **0.42/0.24 A***
Rated speed n_N: **890 min^{-1}***
Starting current I_A: 0.90 A / 0.55 A
Current increase ΔI: 0 %
Dynamic pressure: $p_{d2} = 3.6 \cdot 10^{-6} \cdot q_V^2$ [Pa]
Thermal class: **THCL155***
Min. permitted ambient temperature $t_{R(min)}$: -15 °C
Max. permitted ambient temperature $t_{R(max)}$: 60 °C
Protection class: IP44
Motor protection: Thermal contact
Impeller : High Performance Composite Material, uncoated, black
Motor: 1 coat paint, pebble grey
Conformity: CE
ErP-data
Not subject to ErP regulations (P_1< 125 W)
* Rated data

Characteristic curve



measured with inlet ring, without guard grille according to ISO 5801

Inlet ring	00275850	Page 450
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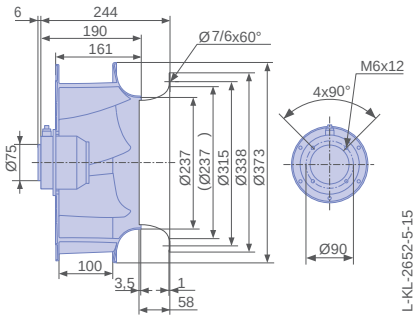
Dimensions [mm]

Free-running motor impeller RH
in installation position H/Vu/Vo



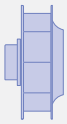
Performance data

Type	Characteristic curve	Voltage U [V]	Operating point	Current I [A]	Motor input power P_1 [W]	Speed n [min^{-1}]	Suction side sound power level L_{WA5} [dB]
RH35V-6DK.2A.1R	I	400	①	0.23	70	950	56
		400*	②	**0.24***	**100***	**890***	53
		400	③	0.24	85	910	64
	II	300	④	0.16	46	910	55
		300	⑤	0.19	70	810	51
		300	⑥	0.18	60	850	63
	III	230	⑦	0.14	36	850	53
		230	⑧	0.18	55	700	49
		230	⑨	0.16	48	760	61
	IV	190	⑩	0.13	30	790	52
		190	⑪	0.17	44	610	46
		190	⑫	0.15	40	670	59
	V	145	⑬	0.12	24	670	48
		145	⑭	0.15	30	470	41
		145	⑮	0.14	28	530	54

*rated data

Fan ordering information

Design	RH*
Installation position	H/Vu/Vo
Electrical connection	Supply cable lateral 105cm



Type	**RH35V-6DK.2A.1R**
Article no.	**113253**
Weight [kg]	4.10

* Inlet ring not included

Control technology

Frequency inverter Fcontrol 3~

Page 484

Motor protection units 3~

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Transformer-based controllers 3~

Page 521

Electronic voltage controllers 3~

Page 506

V p r o

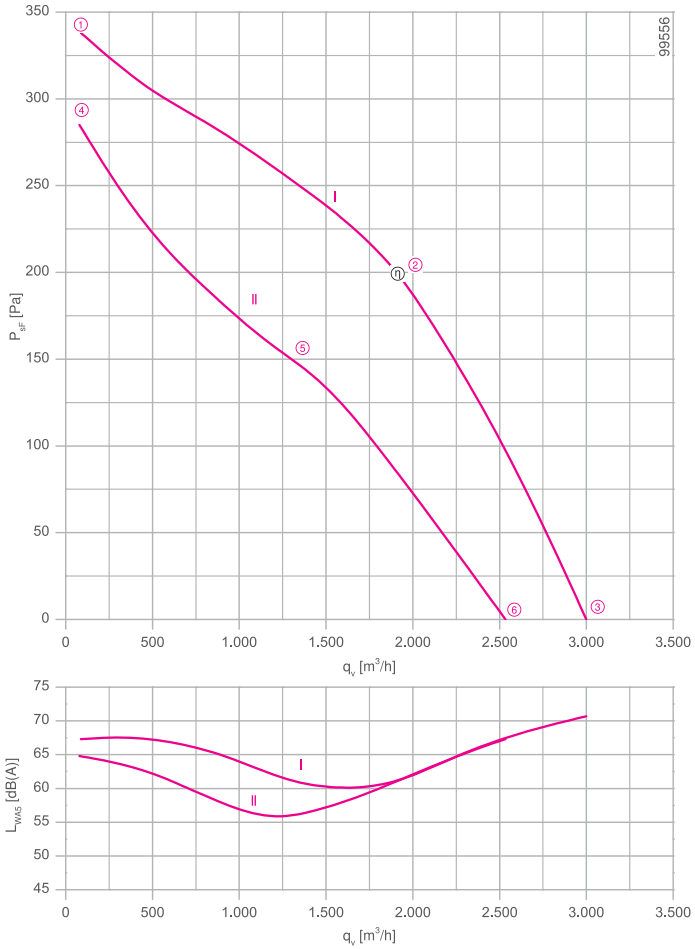
for single phase alternating current, 6-6 pole

R H 3 5 V - V D

Description

Motor technology: AC
Rated voltage U_N: **3~ 400 V (Δ/Y) ±10 %***
Rated frequency f_N: **50 Hz*** (60Hz data available)
Motor input power P_1: **0.24/0.17 kW***
Rated current I_N: **0.48/0.28 A***
Rated speed n_N: **1350/1100 min^{-1}***
Starting current I_A: 1.60 A / 0.50 A
Current increase ΔI: 15 %
Dynamic pressure: $p_{d2} = 3.6 \cdot 10^{-6} \cdot q_V^2$ [Pa]
Thermal class: **THCL155***
Min. permitted ambient temperature $t_{R(min)}$: -15 °C
Max. permitted ambient temperature $t_{R(max)}$: 60 °C
Protection class: IP54
Motor protection: Thermal contact
Impeller : High Performance Composite Material, uncoated, black
Motor: 1 coat paint, pebble grey
Conformity: ErP 2015, CE
ErP-Daten
Efficiency η_{statA}: 45.2 %
Efficiency: N_{actual} = 62.2 / N_{target} = 62**
* Rated data
**ErP 2015

Characteristic curve



measured with inlet ring, without guard grille according to ISO 5801

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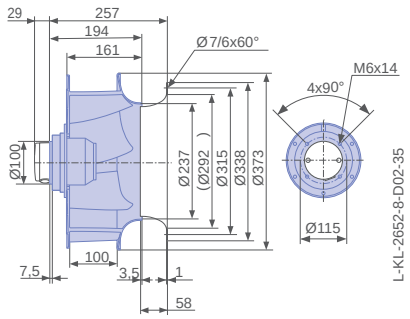
Connection diagram	1360-108XA SW	Page 549
System components		Page 448

Dimensions [mm]

Free-running motor impeller RH
in installation position H/Vu/Vo



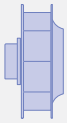
Performance data

Type	Connection	Characteristic curve	Voltage U [V]	Operating point	Current I [A]	Motor input power P_1 [W]	Speed n [min^{-1}]	Suction side sound power level L_{WA5} [dB]
RH35V-VDK.4A.1R	Δ	I	400	①	0.40	130	1430	67
			400*	②	**0.48***	**240***	**1350***	60
			400	③	0.44	200	1380	71
	Y	II	400	④	0.16	95	1320	65
			400*	⑤	**0.28***	**170***	**1100***	57
			400	⑥	0.24	150	1180	67

*rated data

Fan ordering information

Design	RH*
Installation position	H/Vu/Vo
Electrical connection	Cable box D02 with cable lateral 105cm



Type	**RH35V-VDK.4A.1R**
Article no.	**161687**
Weight [kg]	5.50

* Inlet ring not included

Control technology

Frequency inverter Fcontrol 3~

Page 484

Motor protection units 3~

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Transformer-based controllers 3~

Page 521

Electronic voltage controllers 3~

Page 506

V p r o

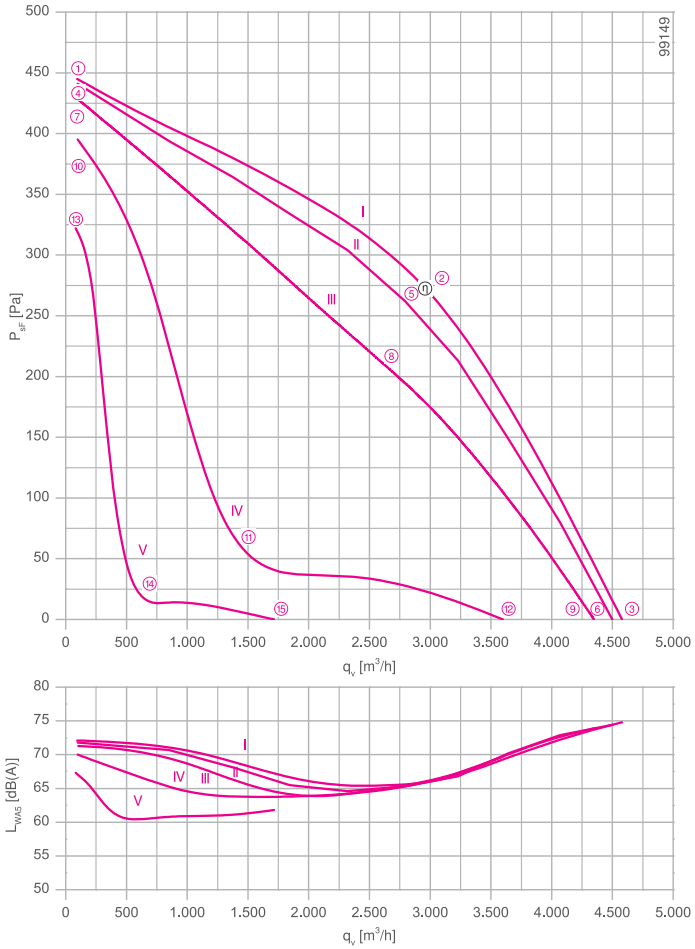
for single phase alternating current, 4 pole

R H 4 0 V - 4 E

Description

Motor technology: AC
Rated voltage U_N: **1~ 230 V±10 %***
Rated frequency f_N: **50 Hz***
Motor input power P_1: **0.50 kW***
Rated current I_N: **2.30 A***
Rated speed n_N: **1380 min^{-1}***
Current increase ΔI: 40 %
Service capacitor C_{400V}: 10.0 µF
Dynamic pressure: $p_{d2} = 2.3 \cdot 10^{-6} \cdot q_V^2$ [Pa]
Thermal class: **THCL155***
Min. permitted ambient temperature $t_{R(min)}$: -15 °C
Max. permitted ambient temperature $t_{R(max)}$: 60 °C
Protection class: IP54
Motor protection: Thermal contact
Impeller : High Performance Composite Material, uncoated, black
Motor: 1 coat paint, pebble grey
Conformity: ErP 2015, CE
ErP-Daten
Efficiency η_{statA}: 46.2 %
Efficiency: N_{actual} = 62.5 / N_{target} = 62**
Frequency inverter required
* Rated data
**ErP 2015

Characteristic curve

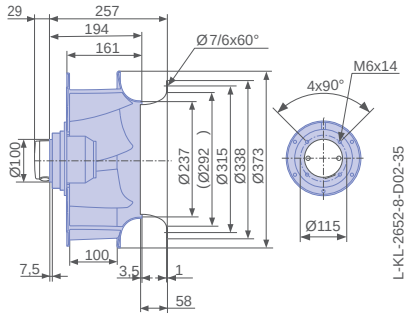


measured with inlet ring, without guard grille according to ISO 5801

Inlet ring	00275570	Page 450
Connection diagram	1360-104XA SW	Page 549
System components		Page 448

Dimensions [mm]

Free-running motor impeller RH
in installation position H/Vu/Vo



Performance data

Type	Characteristic curve	Voltage U [V]	Operating point	Current I [A]	Motor input power P_1 [W]	Speed n [min^{-1}]	Suction side sound power level L_{WA5} [dB]
RH40V-4EK.4F.1R	I	230	①	1.45	280	1450	72
		230*	②	**2.30***	**500***	**1380***	66
		230	③	1.85	390	1420	75
	II	200	④	1.25	240	1440	72
		200	⑤	2.40	460	1340	65
		200	⑥	1.80	360	1400	74
	III	170	⑦	1.25	220	1420	71
		170	⑧	2.80	440	1220	65
		170	⑨	2.00	330	1350	74
	IV	135	⑩	1.40	190	1370	70
		135	⑪	3.20	380	650	64
		135	⑫	2.50	320	1130	70
	V	110	⑬	1.70	180	1240	67
		110	⑭	2.70	250	420	61
		110	⑮	2.70	250	540	62

*rated data

Fan ordering information

Design	RH*
Installation position	H/Vu/Vo
Electrical connection	Cable box D02 with cable lateral 105cm

Type	**RH40V-4EK.4F.1R**
Article no.	**161867**
Weight [kg]	8.70

* Inlet ring not included

Control technology

Frequency inverter Fcontrol 1~

Page 478

Motor protection units 1~

Page 526

Transformer-based controllers 1~

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Electronic voltage controllers 1~

Page 492

V p r o

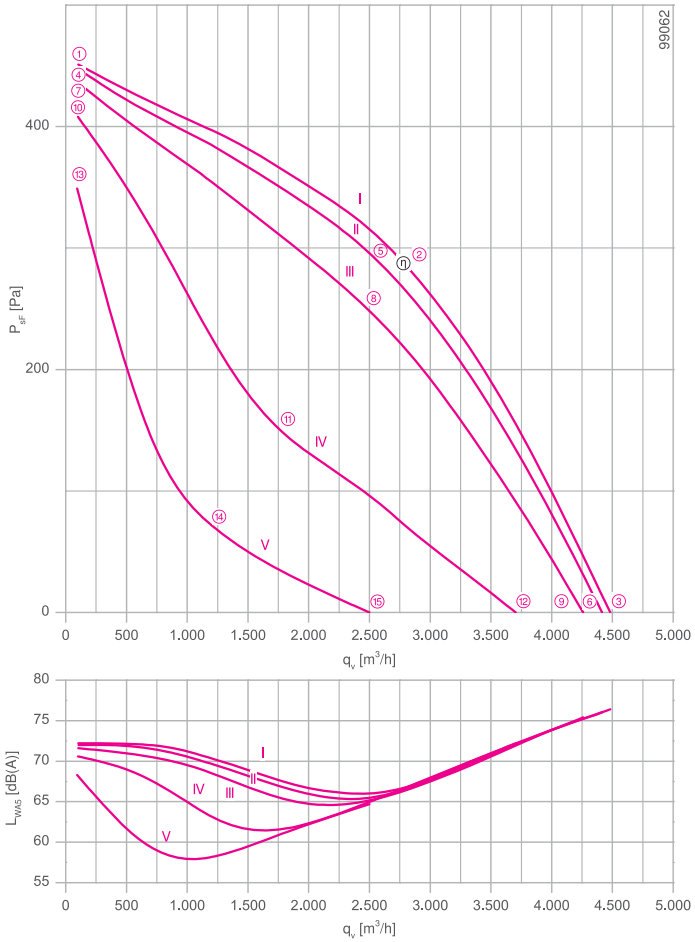
for single phase alternating current, 4 pole

R H 4 0 V - 4 E

Description

Motor technology: AC
Rated voltage U_N: **1~ 230 V±10 %***
Rated frequency f_N: **50 Hz*** (60Hz data available)
Motor input power P_1: **0.50 kW***
Rated current I_N: **2.50 A***
Rated speed n_N: **1400 min^{-1}***
Current increase ΔI: 30 %
Service capacitor C_{400V}: 12.0 µF
Dynamic pressure: $p_{d2} = 2.3 \cdot 10^{-6} \cdot q_V^2$ [Pa]
Thermal class: **THCL155***
Min. permitted ambient temperature $t_{R(min)}$: -15 °C
Max. permitted ambient temperature $t_{R(max)}$: 55 °C
Protection class: IP54
Motor protection: Thermal contact
Impeller : High Performance Composite Material, uncoated, black
Motor: 1 coat paint, pebble grey
Conformity: ErP 2013, CE
ErP-Daten
Efficiency η_{statA}: 45.7 %
Efficiency: N_{actual} = 59.4 / N_{target} = 58**
* Rated data
**ErP 2013

Characteristic curve

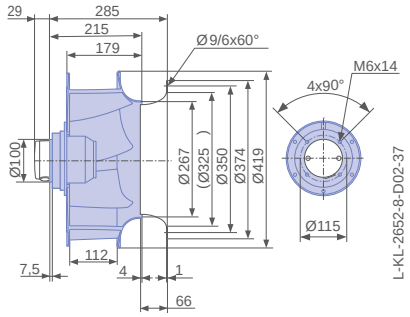


measured with inlet ring, without guard grille according to ISO 5801

Inlet ring	00275570	Page 450
Connection diagram	1360-104XA SW	Page 549
System components		Page 448

Dimensions [mm]

Free-running motor impeller RH
in installation position H/Vu/Vo



Performance data

Type	Characteristic curve	Voltage U [V]	Operating point	Current I [A]	Motor input power P_1 [W]	Speed n [min^{-1}]	Suction side sound power level L_{WA5} [dB]
RH40V-4EK.4I.1R	I	230	①	1.90	290	1460	72
		230*	②	**2.50***	**500***	**1400***	67
		230	③	2.20	420	1430	76
	II	200	④	1.45	240	1450	72
		200	⑤	2.50	460	1370	66
		200	⑥	2.00	370	1410	76
	III	170	⑦	1.35	220	1430	72
		170	⑧	2.70	440	1290	65
		170	⑨	2.20	340	1360	75
	IV	135	⑩	1.50	190	1390	71
		135	⑪	3.20	370	980	61
		135	⑫	2.70	320	1190	72
	V	110	⑬	1.75	180	1280	68
		110	⑭	2.90	260	670	58
		110	⑮	2.80	250	810	65

*rated data

Fan ordering information

Design	RH*
Installation position	H/Vu/Vo
Electrical connection	Cable box D02 with cable lateral 105cm

Type	**RH40V-4EK.4I.1R**
Article no.	**161863**
Weight [kg]	10.30

* Inlet ring not included

Control technology

Frequency inverter Fcontrol 1~

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Motor protection units 1~

Page 526

Transformer-based controllers 1~

Page 517

Electronic voltage controllers 1~

Page 492

V p r o

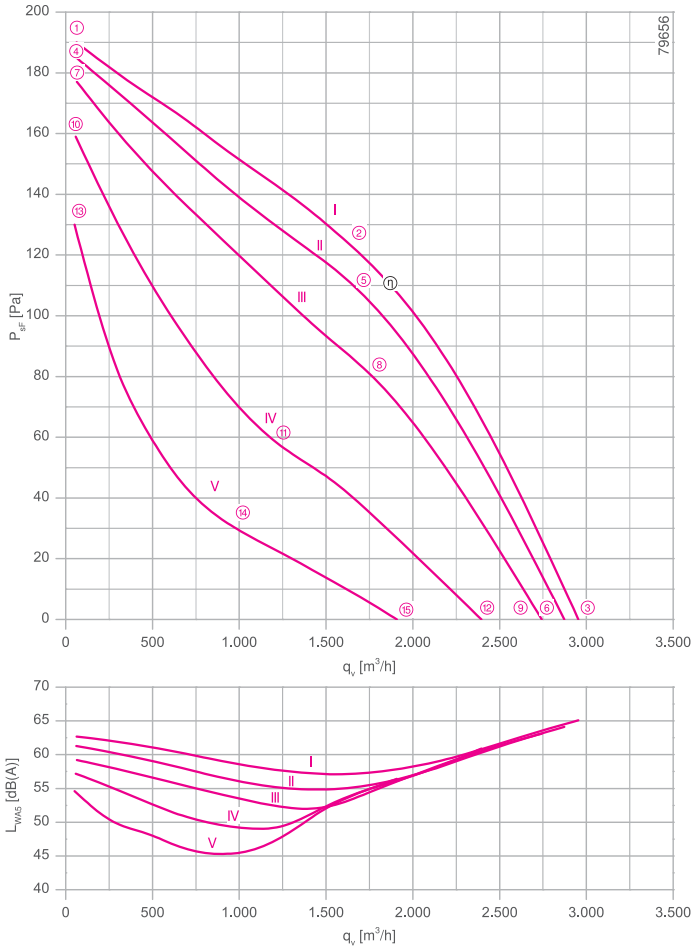
for single phase alternating current, 6 pole

R H 4 0 V - 6 E

Description

Motor technology: AC
Rated voltage U_N: **1~ 230 V±10 %***
Rated frequency f_N: **50 Hz*** (60Hz data available)
Motor input power P_1: **0.17 kW***
Rated current I_N: **0.76 A***
Rated speed n_N: **890 min^{-1}***
Current increase ΔI: 0 %
Service capacitor C_{400V}: 6.0 µF
Dynamic pressure: $p_{d2} = 2.3 \cdot 10^{-6} \cdot q_V^2$ [Pa]
Thermal class: **THCL155***
Min. permitted ambient temperature $t_{R(min)}$: -15 °C
Max. permitted ambient temperature $t_{R(max)}$: 60 °C
Protection class: IP44
Motor protection: Thermal contact
Impeller : High Performance Composite Material, uncoated, black
Motor: 1 coat paint, pebble grey
* Rated data

Characteristic curve



measured with inlet ring, without guard grille according to ISO 5801

Inlet ring	00275570	Page 450
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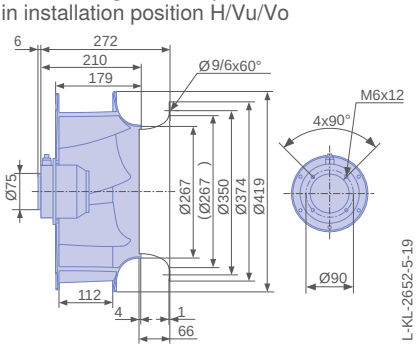
System components		Page 448

Dimensions [mm]

Free-running motor impeller RH
in installation position H/Vu/Vo



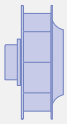
Performance data

Type	Characteristic curve	Voltage U [V]	Operating point	Current I [A]	Motor input power P_1 [W]	Speed n [min^{-1}]	Suction side sound power level L_{WA5} [dB]
RH40V-6EK.2F.1R	I	230	①	0.62	130	950	63
		230*	②	**0.76***	**170***	**890***	57
		230	③	0.68	150	920	65
	II	200	④	0.54	110	930	61
		200	⑤	0.74	150	850	55
		200	⑥	0.64	130	890	64
	III	170	⑦	0.50	85	920	59
		170	⑧	0.72	120	790	55
		170	⑨	0.62	110	850	63
	IV	135	⑩	0.48	65	870	57
		135	⑪	0.70	95	630	49
		135	⑫	0.62	85	750	61
	V	110	⑬	0.48	50	790	55
		110	⑭	0.64	70	470	46
		110	⑮	0.60	65	600	56

*rated data

Fan ordering information

Design	RH*
Installation position	H/Vu/Vo
Electrical connection	Supply cable lateral 105cm



Type	**RH40V-6EK.2F.1R**
Article no.	**113372**
Weight [kg]	6.20

* Inlet ring not included

Control technology

Frequency inverter Fcontrol 1~

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Motor protection units 1~

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Transformer-based controllers 1~

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Electronic voltage controllers 1~

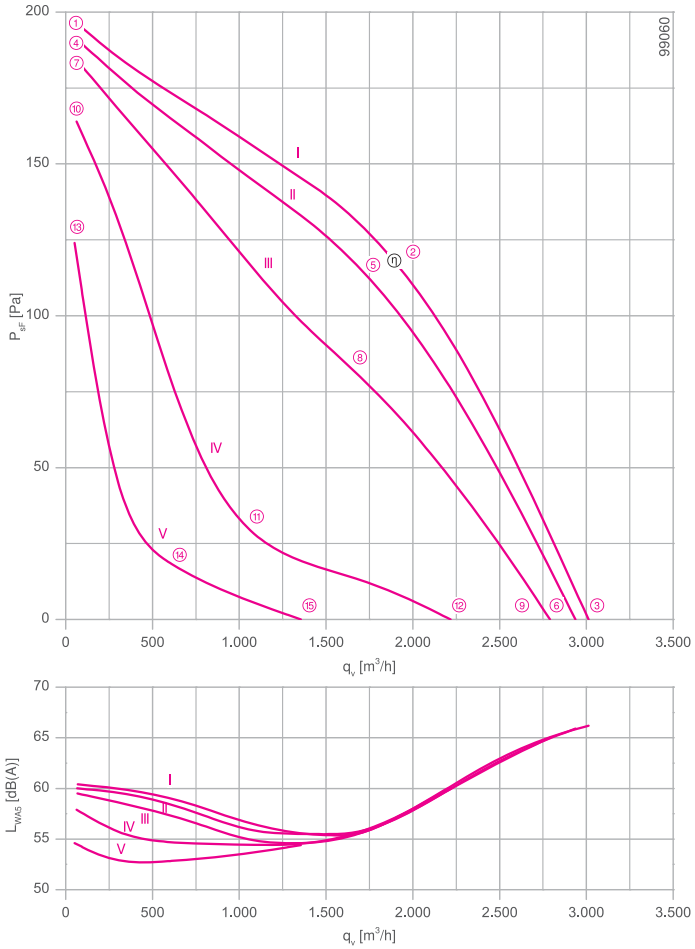
Page 492

V p r o

for single phase alternating current, 6 pole

R H 4 0 V - 6 E

Characteristic curve



measured with inlet ring, without guard grille according to ISO 5801

Description

Motor technology: AC
Rated voltage U_N: **1~ 230 V±10 %***
Rated frequency f_N: **50 Hz*** (60Hz data available)
Motor input power P_1: **0.15 kW***
Rated current I_N: **0.70 A***
Rated speed n_N: **900 min^{-1}***
Current increase ΔI: 15 %
Service capacitor C_{400V}: 5.0 µF
Dynamic pressure: $p_{d2} = 2.3 \cdot 10^{-6} \cdot q_V^2$ [Pa]
Thermal class: **THCL155***
Min. permitted ambient temperature $t_{R(min)}$: -15 °C
Max. permitted ambient temperature $t_{R(max)}$: 60 °C
Protection class: IP54
Motor protection: Thermal contact
Impeller : High Performance Composite Material, uncoated, black
Motor: 1 coat paint, pebble grey
Conformity: ErP 2015, CE

ErP-Daten

Efficiency η_{statA}: 41.1 %
Efficiency: $N_{actual} = 63.1$ / $N_{target} = 62$**
Frequency inverter required
* Rated data
**ErP 2015

Inlet ring	00275570	Page 450
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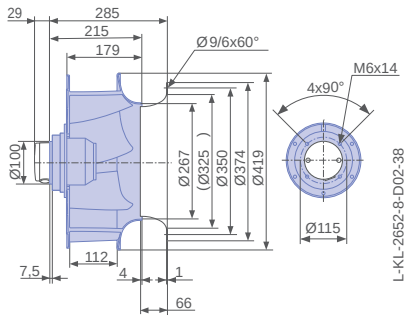
System components		Page 448

Dimensions [mm]

Free-running motor impeller RH
in installation position H/Vu/Vo



Performance data

Type	Characteristic curve	Voltage U [V]	Operating point	Current I [A]	Motor input power P_1 [W]	Speed n [min^{-1}]	Suction side sound power level L_{WA5} [dB]
RH40V-6EK.4C.1R	I	230	①	0.48	100	960	60
		230*	②	**0.70***	**150***	**900***	57
		230	③	0.58	130	930	66
	II	200	④	0.44	85	950	60
		200	⑤	0.72	140	870	56
		200	⑥	0.58	110	910	66
	III	170	⑦	0.42	70	930	60
		170	⑧	0.78	130	770	55
		170	⑨	0.60	100	870	65
	IV	135	⑩	0.44	60	880	58
		135	⑪	0.80	95	470	55
		135	⑫	0.70	85	690	60
	V	110	⑬	0.50	55	770	55
		110	⑭	0.64	65	420	54
		110	⑮	0.64	65	420	54

*rated data

Fan ordering information

Design	RH*
Installation position	H/Vu/Vo
Electrical connection	Cable box D02 with cable lateral 105cm

Type	**RH40V-6EK.4C.1R**
Article no.	**161865**
Weight [kg]	7.30

* Inlet ring not included

Control technology

Frequency inverter Fcontrol 1~

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Motor protection units 1~

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Transformer-based controllers 1~

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Electronic voltage controllers 1~

Page 492

Vpro

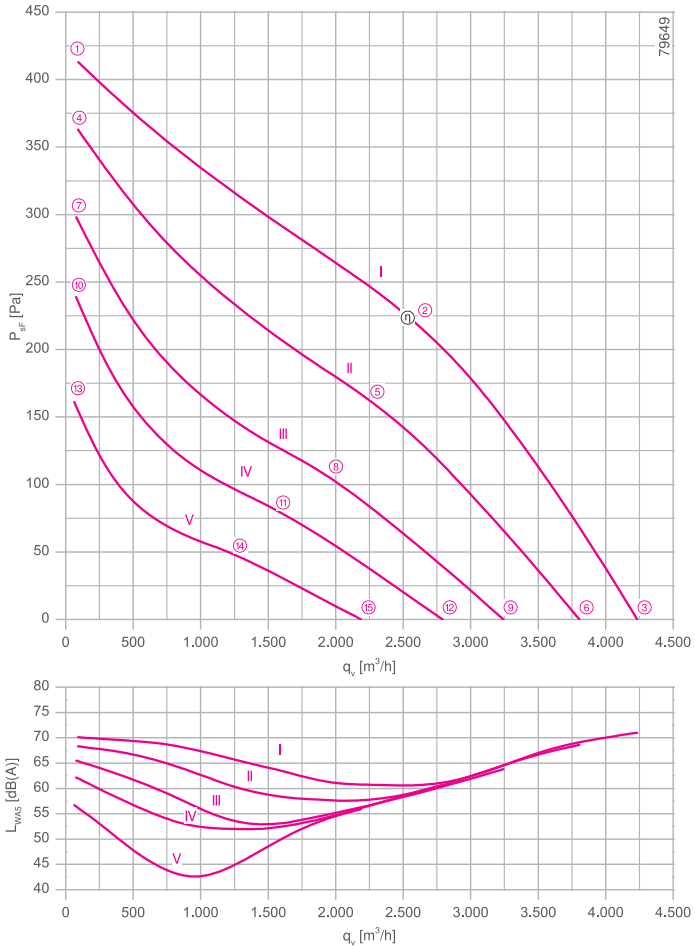
for three phase alternating current, 4 pole

R H 4 0 V - 4 D

Description

Motor technology: AC
Rated voltage U_N: **3~ 230/400 V (Δ/Y) ±10 %***
Rated frequency f_N: **50 Hz***
Motor input power P_1: **0.39 kW***
Rated current I_N: **1.15/0.68 A***
Rated speed n_N: **1220 min^{-1}***
Starting current I_A: 3.40 A / 2.00 A
Current increase ΔI: 0 %
Dynamic pressure: $p_{d2} = 2.3 \cdot 10^{-6} \cdot q_V^2$ [Pa]
Thermal class: **THCL155***
Min. permitted ambient temperature $t_{R(min)}$: -15 °C
Max. permitted ambient temperature $t_{R(max)}$: 60 °C
Protection class: IP44
Motor protection: Thermal contact
Impeller : High Performance Composite Material, uncoated, black
Motor: 1 coat paint, pebble grey
Conformity: ErP 2013, CE
ErP-Daten
Efficiency η_{statA}: 41.3 %
Efficiency: N_{actual} = 58.5 / N_{target} = 58**
Frequency inverter required
* Rated data
**ErP 2013

Characteristic curve



measured with inlet ring, without guard grille according to ISO 5801

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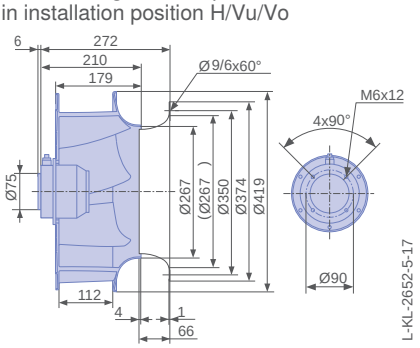
Dimensions [mm]

Free-running motor impeller RH
in installation position H/Vu/Vo



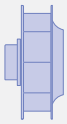
Performance data

Type	Characteristic curve	Voltage U [V]	Operating point	Current I [A]	Motor input power P_1 [W]	Speed n [min^{-1}]	Suction side sound power level L_{WA5} [dB]
RH40V-4DK.2F.1R	I	400	①	0.48	210	1380	70
		400*	②	**0.68***	**390***	**1220***	61
		400	③	0.56	310	1300	71
	II	300	④	0.42	180	1290	68
		300	⑤	0.66	310	1060	58
		300	⑥	0.56	250	1170	69
	III	230	⑦	0.42	150	1170	66
		230	⑧	0.64	230	870	54
		230	⑨	0.56	200	1000	64
	IV	190	⑩	0.42	130	1050	62
		190	⑪	0.58	180	750	52
		190	⑫	0.54	160	860	61
	V	145	⑬	0.42	95	860	57
		145	⑭	0.52	120	580	44
		145	⑮	0.48	110	680	56

*rated data

Fan ordering information

Design	RH*
Installation position	H/Vu/Vo
Electrical connection	Supply cable lateral 105cm



Type	**RH40V-4DK.2F.1R**
Article no.	**113254**
Weight [kg]	6.20

* Inlet ring not included

Control technology

Frequency inverter Fcontrol 3~

Page 484

Motor protection units 3~

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Transformer-based controllers 3~

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Electronic voltage controllers 3~

Page 506

V p r o

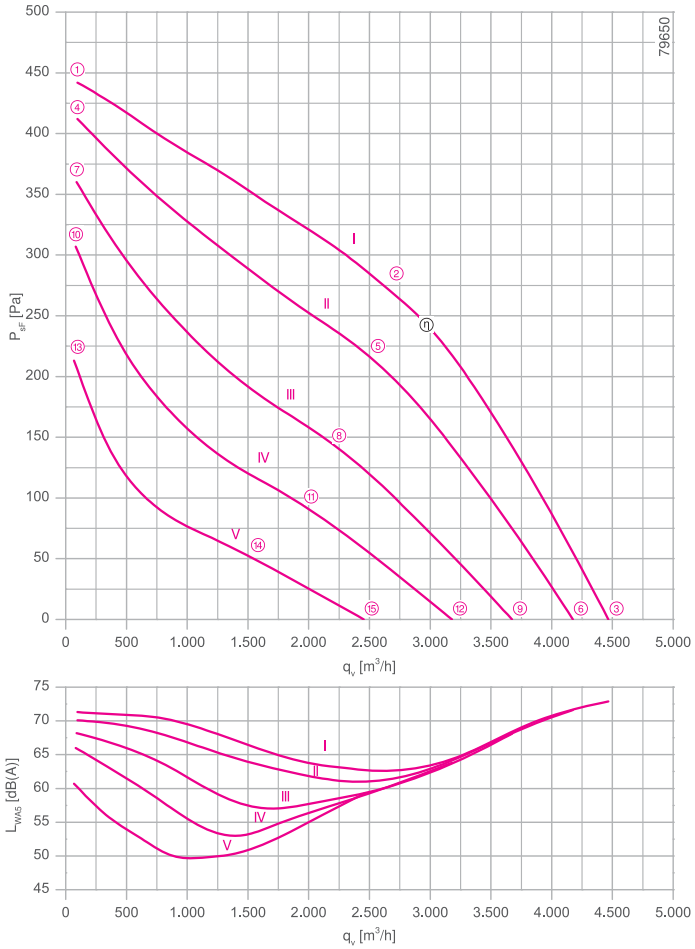
for three phase alternating current, 4 pole

R H 4 0 V - 4 D

Description

Motor technology: AC
Rated voltage U_N: **3~ 230/400 V (Δ/Y) ±10 %***
Rated frequency f_N: **50 Hz***
Motor input power P_1: **0.44 kW***
Rated current I_N: **1.35/0.78 A***
Rated speed n_N: **1320 min^{-1}***
Starting current I_A: 4.0 A / 2.80 A
Current increase ΔI: 10 %
Dynamic pressure: $p_{d2} = 2.3 \cdot 10^{-6} \cdot q_V^2$ [Pa]
Thermal class: **THCL155***
Min. permitted ambient temperature $t_{R(min)}$: -15 °C
Max. permitted ambient temperature $t_{R(max)}$: 60 °C
Protection class: IP54
Motor protection: Thermal contact
Impeller : High Performance Composite Material, uncoated, black
Motor: 1 coat paint, pebble grey
Conformity: ErP 2015, CE
ErP-Daten
Efficiency η_{statA}: 47.7 %
Efficiency: N_{actual} = 62.0 / N_{target} = 62**
* Rated data
**ErP 2015

Characteristic curve



measured with inlet ring, without guard grille according to ISO 5801

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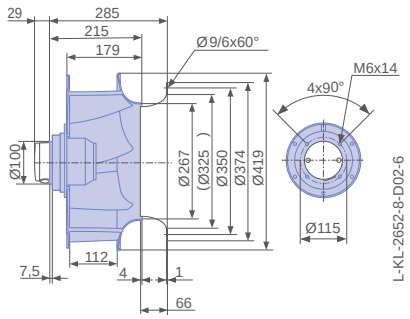
Dimensions [mm]

Free-running motor impeller RH
in installation position H/Vu/Vo



Performance data

Type	Characteristic curve	Voltage U [V]	Operating point	Current I [A]	Motor input power P_1 [W]	Speed n [min^{-1}]	Suction side sound power level L_{WA5} [dB]
RH40V-4DK.4C.1R	I	400	①	0.54	220	1430	71
		400*	②	**0.78***	**440***	**1320***	63
		400	③	0.66	330	1380	73
	II	300	④	0.46	190	1380	70
		300	⑤	0.82	380	1200	61
		300	⑥	0.64	290	1290	72
	III	230	⑦	0.48	170	1290	68
		230	⑧	0.86	310	1010	58
		230	⑨	0.70	250	1140	68
	IV	190	⑩	0.52	150	1190	66
		190	⑪	0.82	240	850	55
		190	⑫	0.72	210	990	64
	V	145	⑬	0.56	120	990	61
		145	⑭	0.72	160	640	49
		145	⑮	0.68	150	770	59

*rated data

Fan ordering information

Design	RH*
Installation position	H/Vu/Vo
Electrical connection	Cable box D02 with cable lateral 105cm

Type	**RH40V-4DK.4C.1R**
Article no.	**113263**
Weight [kg]	7.30

* Inlet ring not included

Control technology

Frequency inverter Fcontrol 3~

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Motor protection units 3~

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Transformer-based controllers 3~

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Electronic voltage controllers 3~

Page 506

Vpro

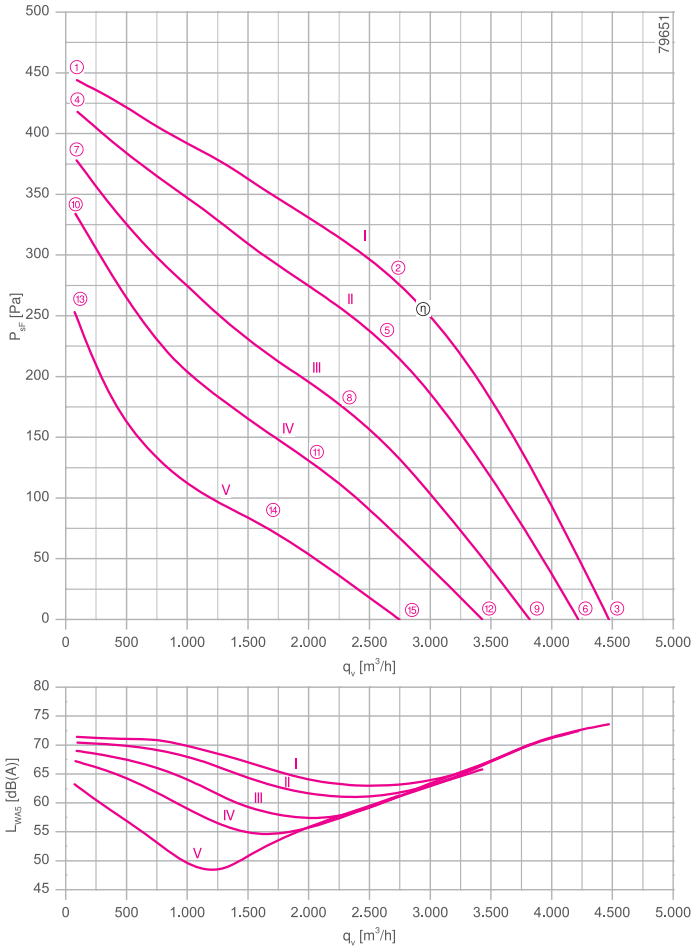
for three phase alternating current, 4 pole

RH40V-4D

Description

Motor technology: AC
Rated voltage U_N: **3~ 230/400 V (Δ/Y) ±10 %***
Rated frequency f_N: **50 Hz*** (60Hz data available)
Motor input power P_1: **0.44 kW***
Rated current I_N: **1.80/1.05 A***
Rated speed n_N: **1360 min^{-1}***
Starting current I_A: 6.00 A / 3.40 A
Current increase ΔI: 0 %
Dynamic pressure: $p_{d2} = 2.3 \cdot 10^{-6} \cdot q_V^2$ [Pa]
Thermal class: **THCL155***
Min. permitted ambient temperature $t_{R(min)}$: -15 °C
Max. permitted ambient temperature $t_{R(max)}$: 60 °C
Protection class: IP54
Motor protection: Thermal contact
Impeller : High Performance Composite Material, uncoated, black
Motor: 1 coat paint, pebble grey
Conformity: ErP 2015, CE
ErP-Daten
Efficiency η_{statA}: 48.0 %
Efficiency: N_{actual} = 62.1 / N_{target} = 62**
* Rated data
**ErP 2015

Characteristic curve



measured with inlet ring, without guard grille according to ISO 5801

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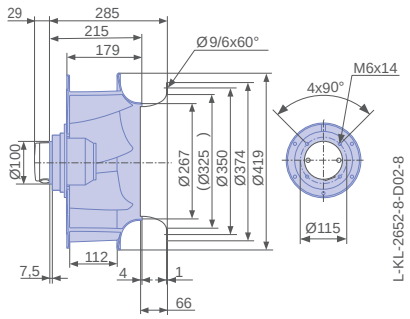
Dimensions [mm]

Free-running motor impeller RH
in installation position H/Vu/Vo



Performance data

Type	Characteristic curve	Voltage U [V]	Operating point	Current I [A]	Motor input power P_1 [W]	Speed n [min^{-1}]	Suction side sound power level L_{WA5} [dB]
RH40V-4DK.4F.1R	I	400	①	0.90	230	1440	71
		400*	②	**1.05***	**440***	**1360***	64
		400	③	0.96	350	1400	74
	II	300	④	0.66	190	1400	70
		300	⑤	0.96	380	1250	61
		300	⑥	0.82	300	1320	72
	III	230	⑦	0.60	170	1330	69
		230	⑧	0.96	300	1100	58
		230	⑨	0.82	250	1200	70
	IV	190	⑩	0.60	150	1240	67
		190	⑪	0.94	240	960	55
		190	⑫	0.82	210	1080	66
	V	145	⑬	0.62	120	1090	63
		145	⑭	0.84	160	750	51
		145	⑮	0.78	150	870	61

*rated data

Fan ordering information

Design	RH*
Installation position	H/Vu/Vo
Electrical connection	Cable box D02 with cable lateral 105cm

Type	**RH40V-4DK.4F.1R**
Article no.	**113280**
Weight [kg]	8.70

* Inlet ring not included

Control technology

Frequency inverter Fcontrol 3~

Page 484

Motor protection units 3~

Page 526

Transformer-based controllers 3~

Page 521

Electronic voltage controllers 3~

Page 506

V p r o

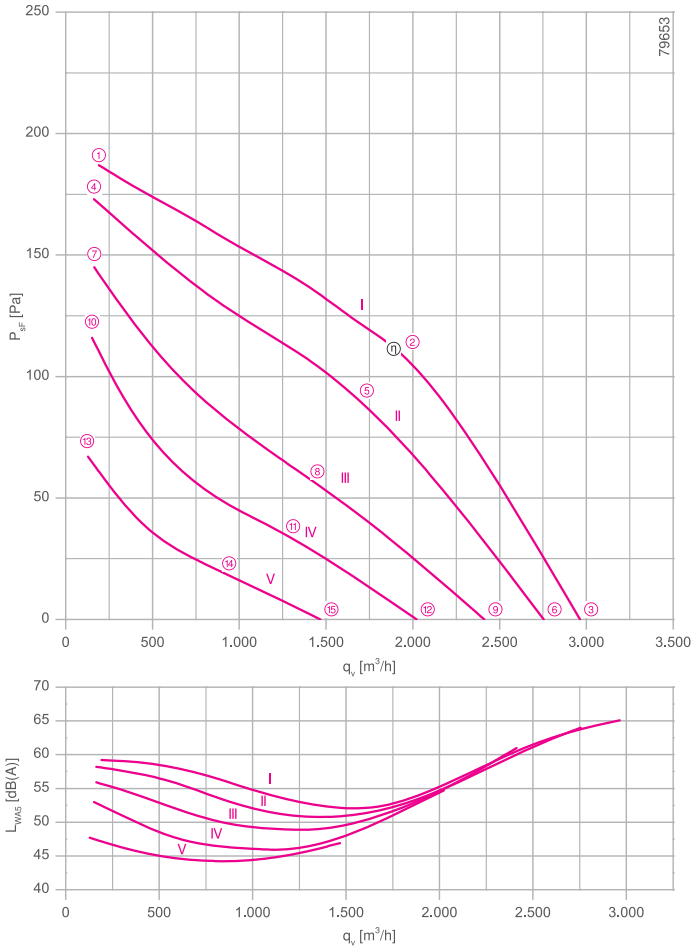
for three phase alternating current, 6 pole

R H 4 0 V - 6 D

Description

Motor technology: AC
Rated voltage U_N: **3~ 230/400 V (Δ/Y) ±10 %***
Rated frequency f_N: **50 Hz*** (60Hz data available)
Motor input power P_1: **0.16 kW***
Rated current I_N: **0.64/0.37 A***
Rated speed n_N: **880 min^{-1}***
Starting current I_A: 1.70 A / 1.00 A
Current increase ΔI: 0 %
Dynamic pressure: $p_{d2} = 2.3 \cdot 10^{-6} \cdot q_V^2$ [Pa]
Thermal class: **THCL155***
Min. permitted ambient temperature $t_{R(min)}$: -15 °C
Max. permitted ambient temperature $t_{R(max)}$: 60 °C
Protection class: IP54
Motor protection: Thermal contact
Impeller : High Performance Composite Material, uncoated, black
Motor: 1 coat paint, pebble grey
Conformity: ErP 2013, CE
ErP-Daten
Efficiency η_{statA}: 39.0 %
Efficiency: N_{actual} = 58.0 / N_{target} = 58**
* Rated data
**ErP 2013

Characteristic curve



measured with inlet ring, without guard grille according to ISO 5801

Inlet ring	00275570	Page 450
Connection diagram	1360-106XA SW	Page 549
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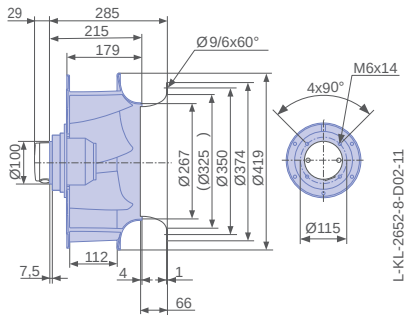
Dimensions [mm]

Free-running motor impeller RH
in installation position H/Vu/Vo



Performance data

Type	Characteristic curve	Voltage U [V]	Operating point	Current I [A]	Motor input power P_1 [W]	Speed n [min^{-1}]	Suction side sound power level L_{WA5} [dB]
RH40V-6DK.4A.1R	I	400	①	0.32	100	940	59
		400*	②	**0.37***	**160***	**880***	54
		400	③	0.34	120	920	65
	II	300	④	0.25	75	910	58
		300	⑤	0.34	120	790	52
		300	⑥	0.29	100	850	64
	III	230	⑦	0.24	65	830	56
		230	⑧	0.33	95	650	49
		230	⑨	0.29	80	750	61
	IV	190	⑩	0.24	55	740	53
		190	⑪	0.30	70	540	46
		190	⑫	0.28	65	630	55
	V	145	⑬	0.22	38	570	48
		145	⑭	0.25	42	400	44
		145	⑮	0.24	40	470	47

*rated data

Fan ordering information

Design	RH*
Installation position	H/Vu/Vo
Electrical connection	Cable box D02 with cable lateral 105cm

Type	**RH40V-6DK.4A.1R**
Article no.	**113453**
Weight [kg]	6.30

* Inlet ring not included

Control technology

Frequency inverter Fcontrol 3~

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Motor protection units 3~

Page 526

Transformer-based controllers 3~

Page 521

Electronic voltage controllers 3~

Page 506

Vpro

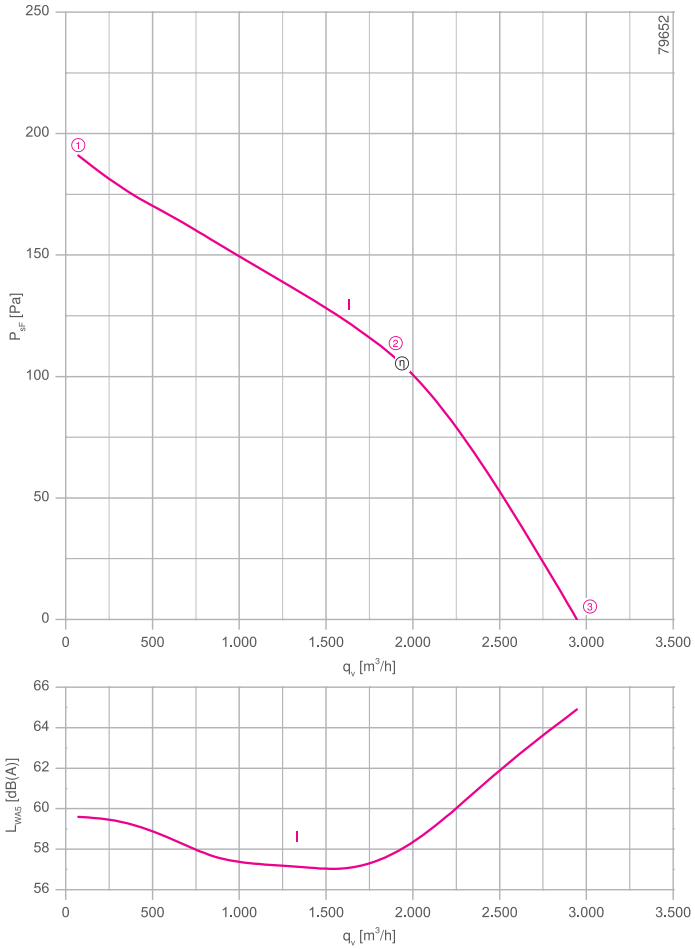
for three phase alternating current, 6 pole

RH40V-6D

Description

Motor technology: AC
Rated voltage U_N: **3~ 230/400 V (Δ/Y) ±10 %***
Rated frequency f_N: **50 Hz***
Motor input power P_1: **0.17 kW***
Rated current I_N: **0.69/0.40 A***
Rated speed n_N: **880 min^{-1}***
Starting current I_A: 1.50 A / 0.85 A
Dynamic pressure: $p_{d2} = 2.3 \cdot 10^{-6} \cdot q_V^2$ [Pa]
Thermal class: **THCL155***
Min. permitted ambient temperature $t_{R(min)}$: -15 °C
Max. permitted ambient temperature $t_{R(max)}$: 60 °C
Protection class: IP44
Motor protection: Thermal contact
Impeller : High Performance Composite Material, uncoated, black
Motor: 1 coat paint, pebble grey
* Rated data

Characteristic curve



measured with inlet ring, without guard grille according to ISO 5801
not voltage controllable

Inlet ring	00275570	Page 450
Connection diagram	1360-106XA SW	Page 549
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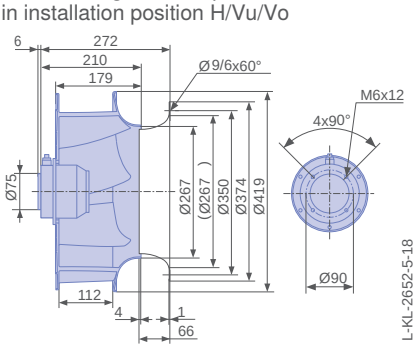
Dimensions [mm]

Free-running motor impeller RH
in installation position H/Vu/Vo



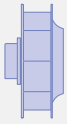
Performance data

Type	Characteristic curve	Voltage U [V]	Operating point	Current I [A]	Motor input power P_1 [W]	Speed n [min^{-1}]	Suction side sound power level L_{WA5} [dB]
RH40V-6DK.2C.1R	I	400	①	0.36	110	940	60
		400*	②	**0.40***	**170***	**880***	57
		400	③	0.38	140	910	65

*rated data

Fan ordering information

Design	RH*
Installation position	H/Vu/Vo
Electrical connection	Supply cable lateral 105cm



Type	**RH40V-6DK.2C.1R**
Article no.	**113255**
Weight [kg]	5.40

* Inlet ring not included

Control technology

Frequency inverter Fcontrol 3~	Motor protection units 3~	Transformer-based controllers 3~	Electronic voltage controllers 3~
			
Page 484	Page 526	Page 521	Page 506

Vpro

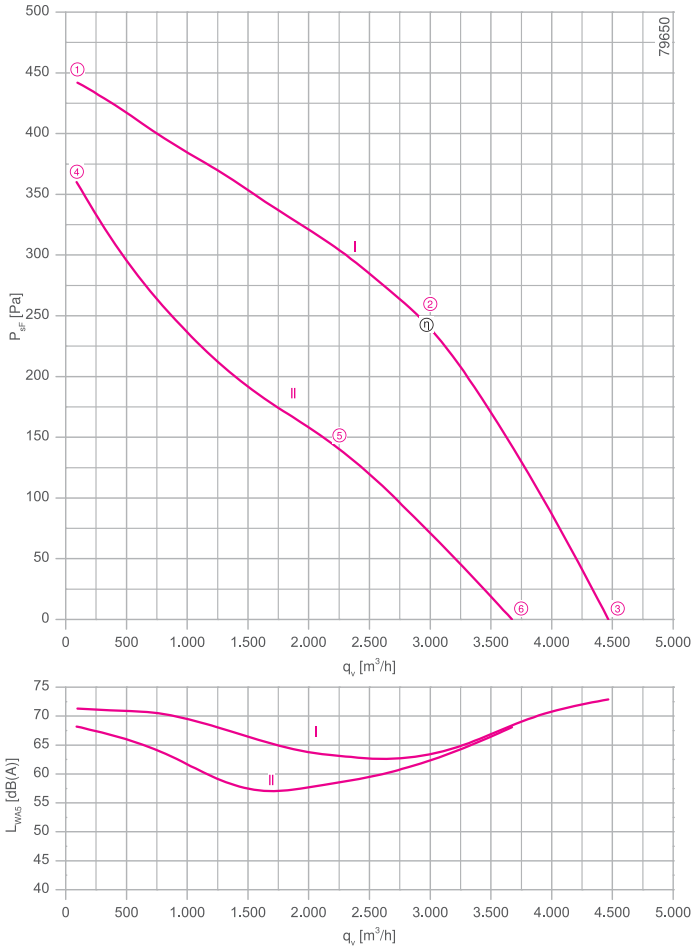
for three phase alternating current, 4-4 pole

RH40V-VD

Description

Motor technology: AC
Rated voltage U_N: **3~ 400 V (Δ/Y) ±10 %***
Rated frequency f_N: **50 Hz***
Motor input power P_1: **0.44/0.31 kW***
Rated current I_N: **0.78/0.50 A***
Rated speed n_N: **1320/1010 min^{-1}***
Starting current I_A: 2.80 A / 0.85 A
Dynamic pressure: $p_{d2} = 2.3 \cdot 10^{-6} \cdot q_V^2$ [Pa]
Thermal class: **THCL155***
Min. permitted ambient temperature $t_{R(min)}$: -15 °C
Max. permitted ambient temperature $t_{R(max)}$: 60 °C
Protection class: IP54
Motor protection: Thermal contact
Impeller : High Performance Composite Material, uncoated, black
Motor: 1 coat paint, pebble grey
Conformity: ErP 2015, CE
ErP-Daten
Efficiency η_{statA}: 47.7 %
Efficiency: N_{actual} = 62.0 / N_{target} = 62**
* Rated data
**ErP 2015

Characteristic curve

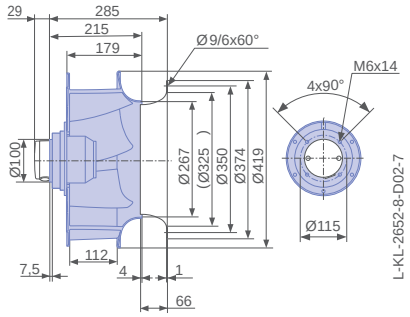


measured with inlet ring, without guard grille according to ISO 5801

Inlet ring	00275570	Page 450
Connection diagram	1360-108XA SW	Page 549
System components		Page 448

Dimensions [mm]

Free-running motor impeller RH
in installation position H/Vu/Vo



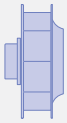
Performance data

Type	Connection	Characteristic curve	Voltage U [V]	Operating point	Current I [A]	Motor input power P_1 [W]	Speed n [min^{-1}]	Suction side sound power level L_{WA5} [dB]
RH40V-VDK.4C.1R	Δ	I	400	①	0.54	220	1430	71
			400*	②	**0.78***	**440***	**1320***	63
			400	③	0.66	330	1380	73
	Y	II	400	④	0.28	170	1290	68
			400*	⑤	**0.50***	**310***	**1010***	58
			400	⑥	0.40	250	1140	68

*rated data

Fan ordering information

Design	RH*
Installation position	H/Vu/Vo
Electrical connection	Cable box D02 with cable lateral 105cm



Type	**RH40V-VDK.4C.1R**
Article no.	**113281**
Weight [kg]	7.30

* Inlet ring not included

Control technology

Frequency inverter Fcontrol 3~

Page 484

Motor protection units 3~

Page 526

Transformer-based controllers 3~

Page 521

Electronic voltage controllers 3~

Page 506

V p r o

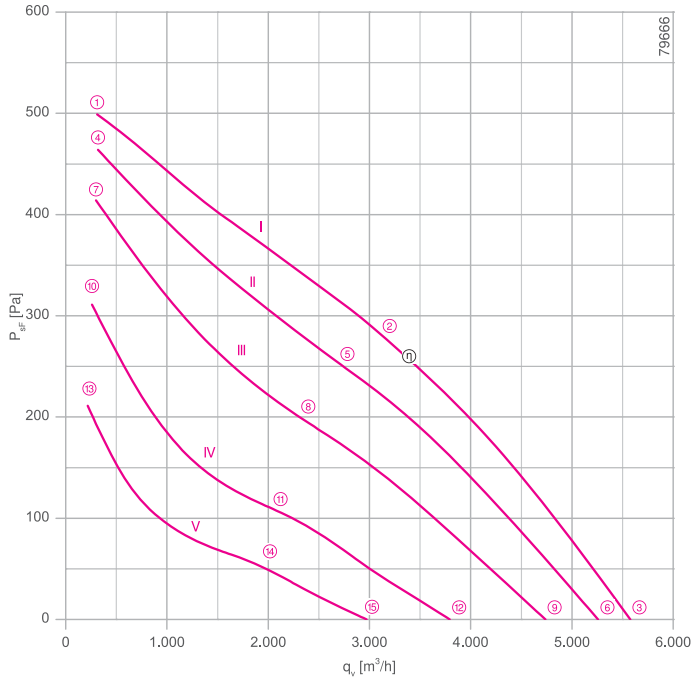
for single phase alternating current, 4 pole

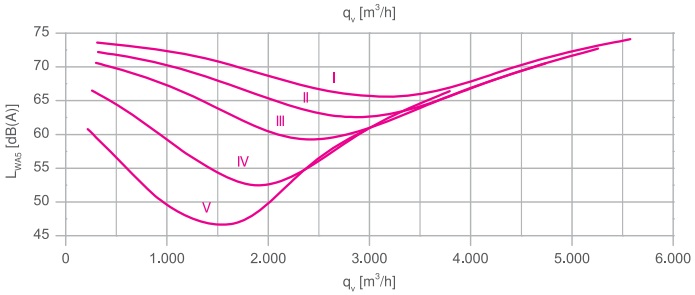
R H 4 5 V - 4 E

Description

Motor technology: AC
Rated voltage U_N: **1~ 230 V±10 %***
Rated frequency f_N: **50 Hz***
Motor input power P_1: **0.62 kW***
Rated current I_N: **2.80 A***
Rated speed n_N: **1240 min^{-1}***
Service capacitor C_{400V}: 12.0 μF
Dynamic pressure: $p_{d2} = 1.4 \cdot 10^{-6} \cdot q_v^2$ [Pa]
Thermal class: **THCL155***
Min. permitted ambient temperature $t_{R(min)}$: -15 °C
Max. permitted ambient temperature $t_{R(max)}$: 60 °C
Protection class: IP54
Motor protection: Thermal contact
Impeller : High Performance Composite Material, uncoated, black
Motor: 1 coat paint, pebble grey
* Rated data

Characteristic curve



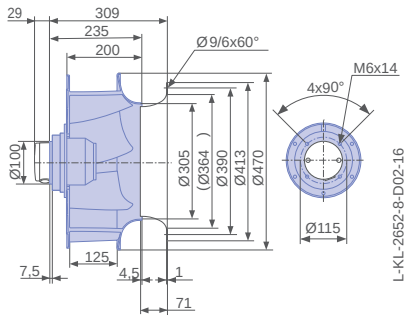


measured with inlet ring, without guard grille according to ISO 5801

Inlet ring	00275571	Page 451
Connection diagram	1360-104XA SW	Page 549
System components		Page 448

Dimensions [mm]

Free-running motor impeller RH
in installation position H/Vu/Vo



Performance data

Type	Characteristic curve	Voltage U [V]	Operating point	Current I [A]	Motor input power P_1 [W]	Speed n [min^{-1}]	Suction side sound power level L_{WA5} [dB]
RH45V-4EK.4I.1R	I	230	①	1.95	420	1360	74
		230*	②	**2.80***	**620***	**1230***	66
		230	③	2.50	540	1290	74
	II	200	④	1.90	370	1310	72
		200	⑤	2.80	540	1140	63
		200	⑥	2.50	480	1220	73
	III	170	⑦	1.95	330	1240	71
		170	⑧	2.80	460	1010	60
		170	⑨	2.50	420	1100	71
	IV	135	⑩	2.10	270	1080	67
		135	⑪	2.60	330	780	53
		135	⑫	2.50	310	890	66
	V	110	⑬	2.00	210	880	61
		110	⑭	2.30	230	610	47
		110	⑮	2.20	230	700	61

*rated data

Fan ordering information

Design	RH*
Installation position	H/Vu/Vo
Electrical connection	Cable box D02 with cable lateral 105cm

Type	**RH45V-4EK.4I.1R**
Article no.	**113308**
Weight [kg]	11.10

* Inlet ring not included

Control technology

Frequency inverter Fcontrol 1~

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Motor protection units 1~

Page 526

Transformer-based controllers 1~

Page 517

Electronic voltage controllers 1~

Page 492

V p r o

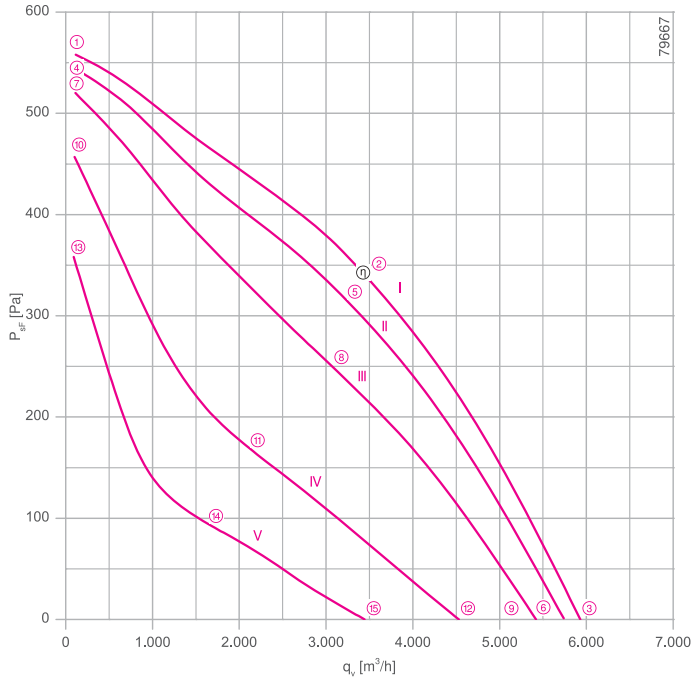
for single phase alternating current, 4 pole

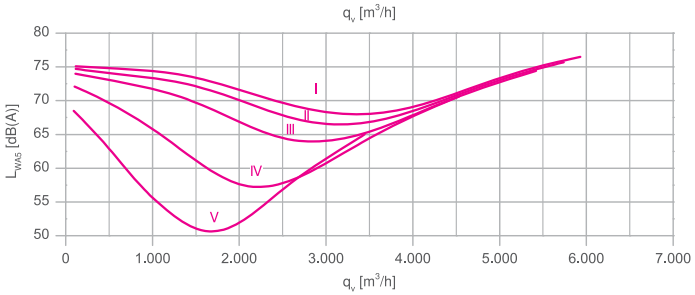
R H 4 5 V - 4 E

Description

Motor technology: AC
Rated voltage U_N: **1~ 230 V±10 %***
Rated frequency f_N: **50 Hz*** (60Hz data available)
Motor input power P_1: **0.76 kW***
Rated current I_N: **3.60 A***
Rated speed n_N: **1340 min^{-1}***
Current increase ΔI: 5 %
Service capacitor C_{400V}: 20.0 µF
Dynamic pressure: $p_{d2} = 1.4 \cdot 10^{-6} \cdot q_V^2$ [Pa]
Thermal class: **THCL155***
Min. permitted ambient temperature $t_{R(min)}$: -15 °C
Max. permitted ambient temperature $t_{R(max)}$: 60 °C
Protection class: IP54
Motor protection: Thermal contact
Impeller : High Performance Composite Material, uncoated, black
Motor: 1 coat paint, pebble grey
* Rated data

Characteristic curve





measured with inlet ring, without guard grille according to ISO 5801

Inlet ring	00275571	Page 451
Connection diagram	1360-104XA SW	Page 549
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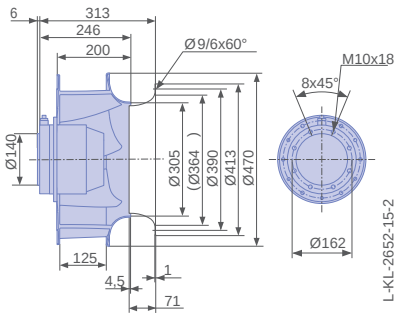
Dimensions [mm]

Free-running motor impeller RH
in installation position H/Vu/Vo



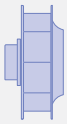
Performance data

Type	Characteristic curve	Voltage U [V]	Operating point	Current I [A]	Motor input power P_1 [W]	Speed n [min^{-1}]	Suction side sound power level L_{WA5} [dB]
RH45V-4EK.6F.1R	I	230	①	2.50	480	1430	75
		230*	②	**3.60***	**760***	**1340***	68
		230	③	3.20	660	1380	77
	II	200	④	2.20	420	1410	75
		200	⑤	3.60	680	1280	67
		200	⑥	3.10	600	1340	76
	III	170	⑦	2.20	370	1380	74
		170	⑧	3.70	600	1170	64
		170	⑨	3.20	520	1260	74
	IV	135	⑩	2.30	310	1290	72
		135	⑪	3.60	440	910	57
		135	⑫	3.30	420	1060	71
	V	110	⑬	2.40	260	1140	69
		110	⑭	3.20	300	690	51
		110	⑮	3.10	290	810	65

*rated data

Fan ordering information

Design	RH*
Installation position	H/Vu/Vo
Electrical connection	Supply cable lateral 105cm



Type	**RH45V-4EK.6F.1R**
Article no.	**113378**
Weight [kg]	16.00

* Inlet ring not included

Control technology

Frequency inverter Fcontrol 1~

Page 478

Motor protection units 1~

Page 526

Transformer-based controllers 1~

Page 517

Electronic voltage controllers 1~

Page 492

Vpro

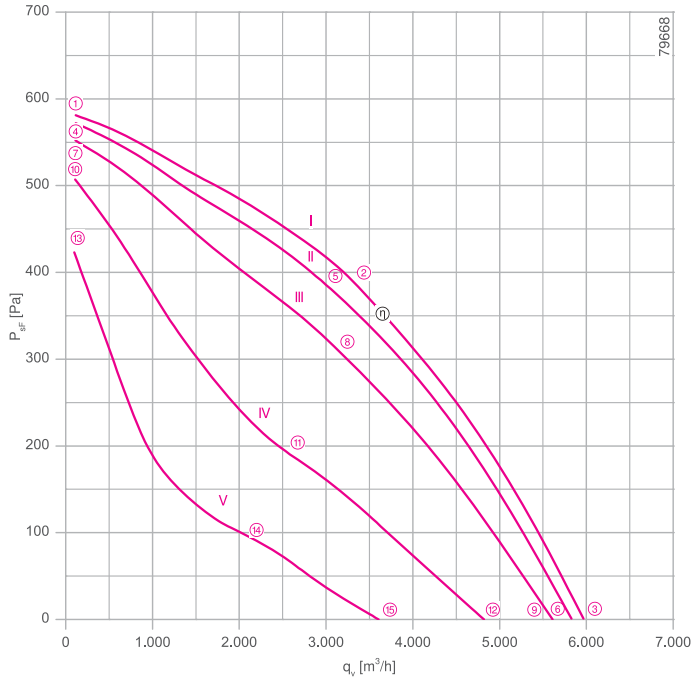
for single phase alternating current, 4 pole

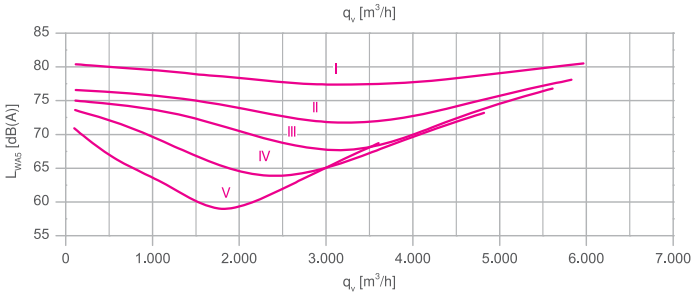
RH45V-4E

Description

Motor technology: AC
Rated voltage U_N: **1~ 230 V±10 %***
Rated frequency f_N: **50 Hz*** (60Hz data available)
Motor input power P_1: **0.80 kW***
Rated current I_N: **3.60 A***
Rated speed n_N: **1400 min^{-1}***
Current increase ΔI: 20 %
Service capacitor C_{400V}: 20.0 µF
Dynamic pressure: $p_{d2} = 1.4 \cdot 10^{-6} \cdot q_V^2$ [Pa]
Thermal class: **THCL155***
Min. permitted ambient temperature $t_{R(min)}$: -15 °C
Max. permitted ambient temperature $t_{R(max)}$: 60 °C
Protection class: IP54
Motor protection: Thermal contact
Impeller : High Performance Composite Material, uncoated, black
Motor: 1 coat paint, pebble grey
Conformity: ErP 2013, CE
ErP-Daten
Efficiency η_{statA}: 46.4 %
Efficiency: N_{actual} = 58.0 / N_{target} = 58**
* Rated data
**ErP 2013

Characteristic curve





measured with inlet ring, without guard grille according to ISO 5801

Inlet ring	00275571	Page 450
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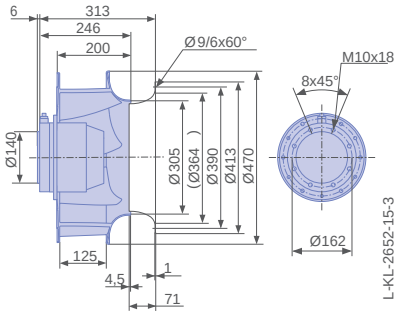
Dimensions [mm]

Free-running motor impeller RH
in installation position H/Vu/Vo



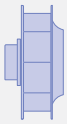
Performance data

Type	Characteristic curve	Voltage U [V]	Operating point	Current I [A]	Motor input power P_1 [W]	Speed n [min^{-1}]	Suction side sound power level L_{WA5} [dB]
RH45V-4EK.6K.1R	I	230	①	2.20	460	1450	80
		230*	②	**3.60***	**800***	**1400***	77
		230	③	3.20	680	1420	81
	II	200	④	2.10	420	1440	77
		200	⑤	3.80	740	1360	72
		200	⑥	3.30	640	1390	78
	III	170	⑦	2.20	380	1420	75
		170	⑧	4.20	680	1280	68
		170	⑨	3.60	600	1340	77
	IV	135	⑩	2.50	330	1360	74
		135	⑪	4.80	560	1020	64
		135	⑫	4.20	520	1150	73
	V	110	⑬	2.90	300	1240	71
		110	⑭	4.40	400	800	61
		110	⑮	4.20	390	870	69

*rated data

Fan ordering information

Design	RH*
Installation position	H/Vu/Vo
Electrical connection	Supply cable lateral 105cm



Type	**RH45V-4EK.6K.1R**
Article no.	**113379**
Weight [kg]	19.80

* Inlet ring not included

Control technology

Frequency inverter Fcontrol 1~

Page 478

Motor protection units 1~

Page 526

Transformer-based controllers 1~

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Electronic voltage controllers 1~

Page 492

Vpro

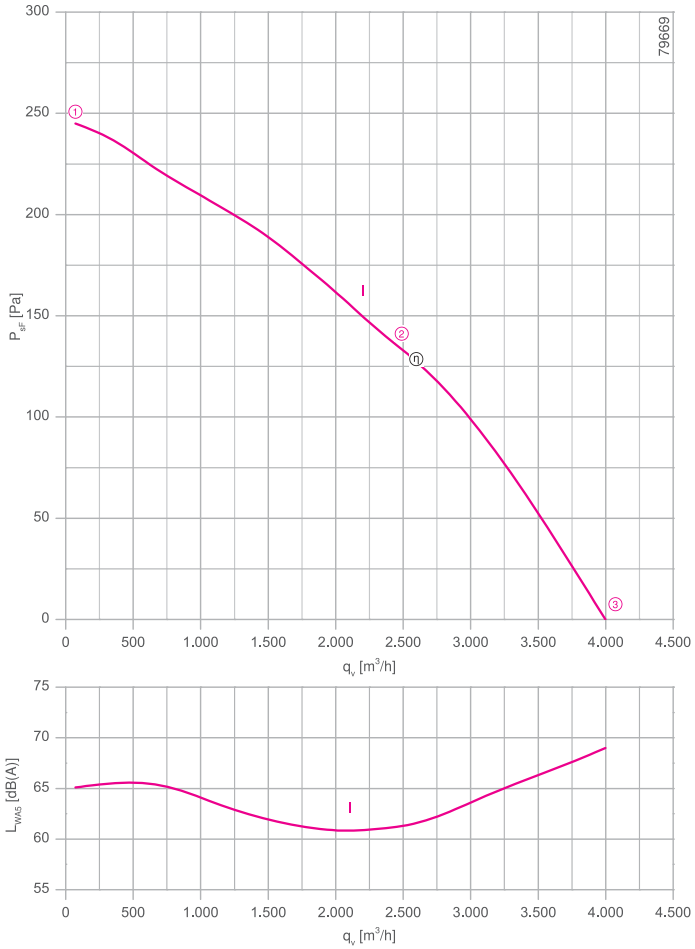
for single phase alternating current, 6 pole

RH45V-6E

Description

Motor technology: AC
Rated voltage U_N: **1~ 230 V±10 %***
Rated frequency f_N: **50 Hz*** (60Hz data available)
Motor input power P_1: **0.25 kW***
Rated current I_N: **1.10 A***
Rated speed n_N: **900 min^{-1}***
Current increase ΔI: 5 %
Service capacitor C_{400V}: 8.0 µF
Dynamic pressure: $p_{d2} = 1.4 \cdot 10^{-6} \cdot q_V^2$ [Pa]
Thermal class: **THCL155***
Min. permitted ambient temperature $t_{R(min)}$: -15 °C
Max. permitted ambient temperature $t_{R(max)}$: 60 °C
Protection class: IP54
Motor protection: Thermal contact
Impeller : High Performance Composite Material, uncoated, black
Motor: 1 coat paint, pebble grey
* Rated data

Characteristic curve

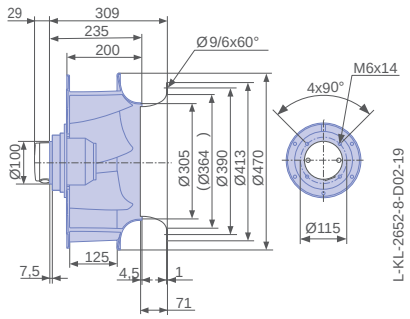


measured with inlet ring, without guard grille according to ISO 5801
not voltage controllable

Inlet ring	00275571	Page 450
Connection diagram	1360-104XA SW	Page 549
System components		Page 448

Dimensions [mm]

Free-running motor impeller RH
in installation position H/Vu/Vo



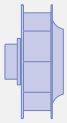
Performance data

Type	Characteristic curve	Voltage U [V]	Operating point	Current I [A]	Motor input power P_1 [W]	Speed n [min^{-1}]	Suction side sound power level L_{WA5} [dB]
RH45V-6EK.4C.1R	I	230	①	0.84	180	960	65
		230*	②	**1.10***	**250***	**900***	61
		230	③	1.00	220	930	69

*rated data

Fan ordering information

Design	RH*
Installation position	H/Vu/Vo
Electrical connection	Cable box D02 with cable lateral 105cm



Type	**RH45V-6EK.4C.1R**
Article no.	**113309**
Weight [kg]	8.10

* Inlet ring not included

Control technology

Frequency inverter Fcontrol 1~

Page 478

Motor protection units 1~

Page 526

Transformer-based controllers 1~

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Electronic voltage controllers 1~

Page 492

V p r o

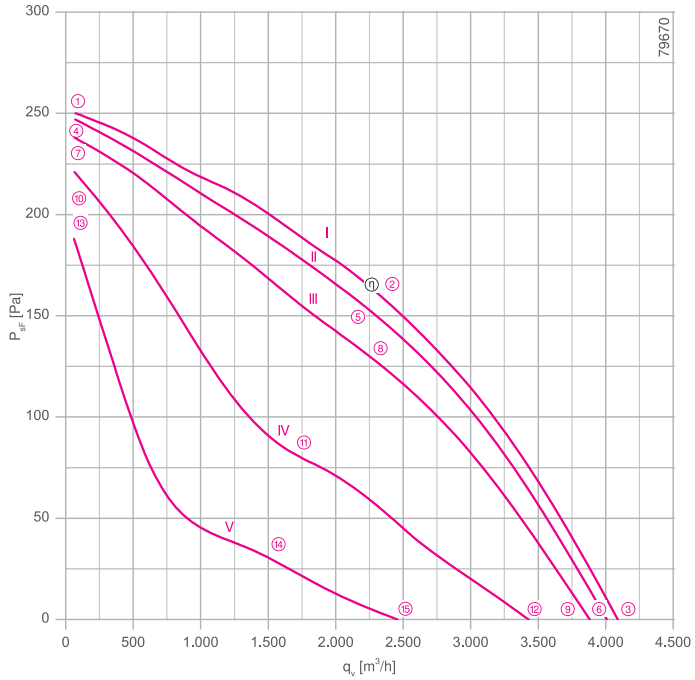
for single phase alternating current, 6 pole

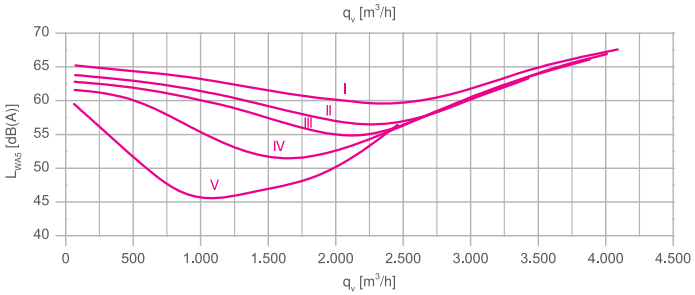
R H 4 5 V - 6 E

Description

Motor technology: AC
Rated voltage U_N: **1~ 230 V±10 %***
Rated frequency f_N: **50 Hz*** (60Hz data available)
Motor input power P_1: **0.30 kW***
Rated current I_N: **1.40 A***
Rated speed n_N: **920 min^{-1}***
Current increase ΔI: 0 %
Service capacitor C_{400V}: 12.0 µF
Dynamic pressure: $p_{d2} = 1.4 \cdot 10^{-6} \cdot q_V^2$ [Pa]
Thermal class: **THCL155***
Min. permitted ambient temperature $t_{R(min)}$: -15 °C
Max. permitted ambient temperature $t_{R(max)}$: 60 °C
Protection class: IP54
Motor protection: Thermal contact
Impeller : High Performance Composite Material, uncoated, black
Motor: 1 coat paint, pebble grey
* Rated data

Characteristic curve





measured with inlet ring, without guard grille according to ISO 5801

Inlet ring	00275571	Page 450
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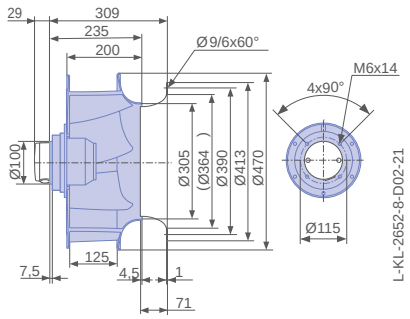
System components		Page 448

Dimensions [mm]

Free-running motor impeller RH
in installation position H/Vu/Vo



Performance data

Type	Characteristic curve	Voltage U [V]	Operating point	Current I [A]	Motor input power P_1 [W]	Speed n [min^{-1}]	Suction side sound power level L_{WA5} [dB]
RH45V-6EK.4F.1R	I	230	①	1.15	230	960	65
		230*	②	**1.40***	**300***	**920***	60
		230	③	1.30	270	940	68
	II	200	④	0.94	180	960	64
		200	⑤	1.30	250	900	57
		200	⑥	1.15	220	920	67
	III	170	⑦	0.86	140	940	63
		170	⑧	1.30	220	850	55
		170	⑨	1.10	190	900	66
	IV	135	⑩	0.84	110	900	62
		135	⑪	1.35	170	670	52
		135	⑫	1.15	150	790	63
	V	110	⑬	0.88	95	830	60
		110	⑭	1.20	120	490	46
		110	⑮	1.15	110	570	56

*rated data

Fan ordering information

Design	RH*
Installation position	H/Vu/Vo
Electrical connection	Cable box D02 with cable lateral 105cm

Type	**RH45V-6EK.4F.1R**
Article no.	**113398**
Weight [kg]	9.50

* Inlet ring not included

Control technology

Frequency inverter Fcontrol 1~

Page 478

Motor protection units 1~

Page 526

Transformer-based controllers 1~

Page 517

Electronic voltage controllers 1~

Page 492

Vpro

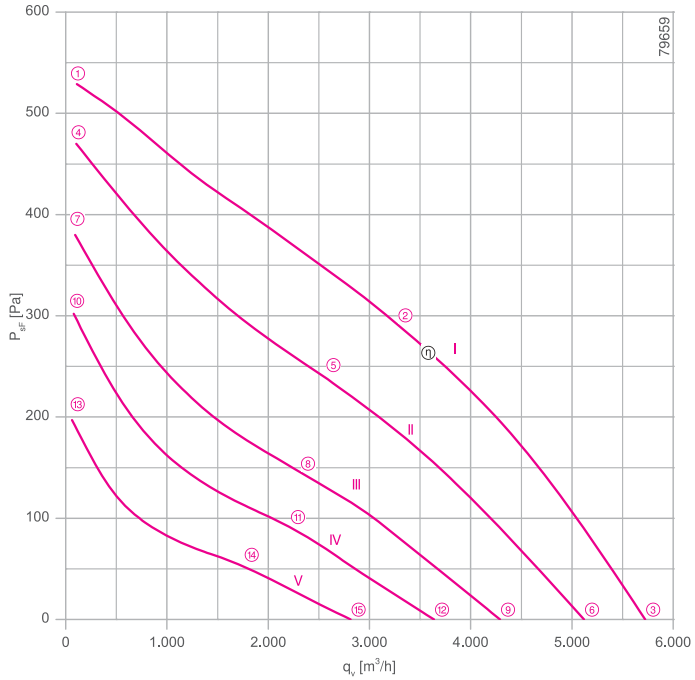
for three phase alternating current, 4 pole

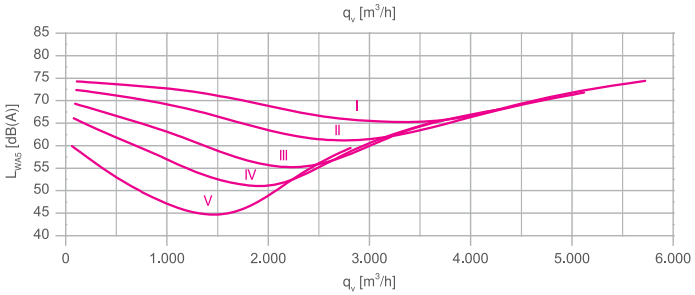
R H 4 5 V - 4 D

Description

Motor technology: AC
Rated voltage U_N: **3~ 230/400 V (Δ/Y) ±10 %***
Rated frequency f_N: **50 Hz***
Motor input power P_1: **0.64 kW***
Rated current I_N: **2.25/1.30 A***
Rated speed n_N: **1250 min^{-1}***
Starting current I_A: 6.00 A / 3.40 A
Current increase ΔI: 0 %
Dynamic pressure: $p_{d2} = 1.4 \cdot 10^{-6} \cdot q_V^2$ [Pa]
Thermal class: **THCL155***
Min. permitted ambient temperature $t_{R(min)}$: -15 °C
Max. permitted ambient temperature $t_{R(max)}$: 55 °C
Protection class: IP54
Motor protection: Thermal contact
Impeller : High Performance Composite Material, uncoated, black
Motor: 1 coat paint, pebble grey
* Rated data

Characteristic curve





measured with inlet ring, without guard grille according to ISO 5801

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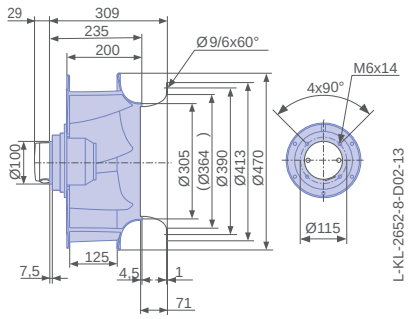
Dimensions [mm]

Free-running motor impeller RH
in installation position H/Vu/Vo



Performance data

Type	Characteristic curve	Voltage U [V]	Operating point	Current I [A]	Motor input power P_1 [W]	Speed n [min^{-1}]	Suction side sound power level L_{WA5} [dB]
RH45V-4DK.4F.1R	I	400	①	0.96	360	1380	74
		400*	②	**1.30***	**640***	**1250***	65
		400	③	1.15	540	1300	74
	II	300	④	0.82	310	1300	72
		300	⑤	1.25	500	1080	62
		300	⑥	1.10	440	1170	72
	III	230	⑦	0.82	260	1170	69
		230	⑧	1.15	360	890	56
		230	⑨	1.05	330	980	68
	IV	190	⑩	0.82	210	1050	66
		190	⑪	1.05	270	750	51
		190	⑫	1.00	250	840	65
	V	145	⑬	0.76	150	850	60
		145	⑭	0.88	170	580	45
		145	⑮	0.86	160	650	60

*rated data

Fan ordering information

Design	RH*
Installation position	H/Vu/Vo
Electrical connection	Cable box D02 with cable lateral 105cm

Type	**RH45V-4DK.4F.1R**
Article no.	**113265**
Weight [kg]	9.50

* Inlet ring not included

Control technology

Frequency inverter Fcontrol 3~

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Motor protection units 3~

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Transformer-based controllers 3~

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Electronic voltage controllers 3~

Page 506

V p r o

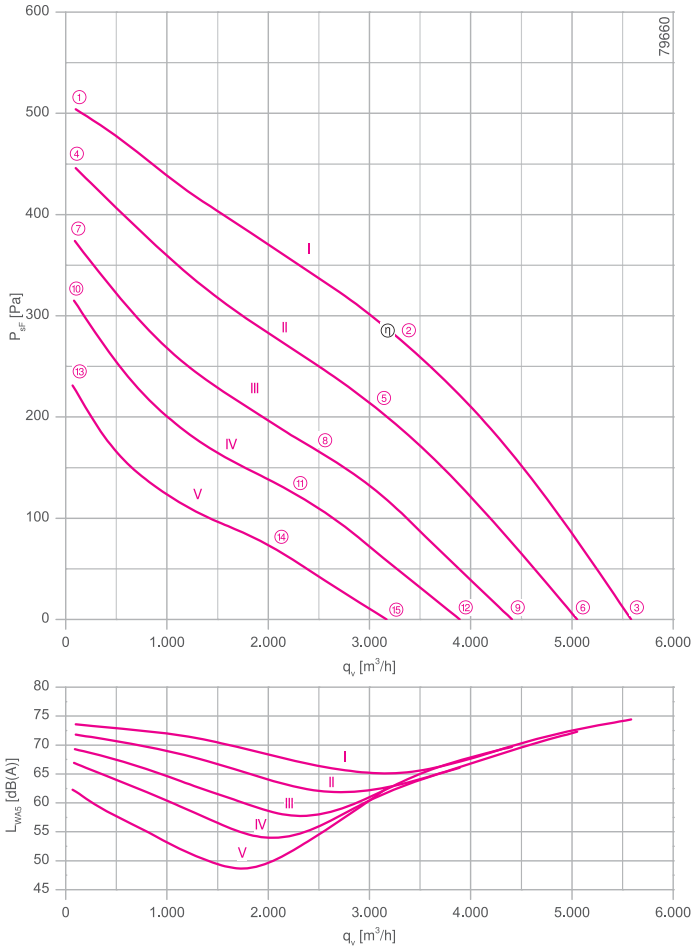
for three phase alternating current, 4 pole

R H 4 5 V - 4 D

Description

Motor technology: AC
Rated voltage U_N: **3~ 230/400 V (Δ/Y) ±10 %***
Rated frequency f_N: **50 Hz*** (60Hz data available)
Motor input power P_1: **0.58 kW***
Rated current I_N: **2.20/1.25 A***
Rated speed n_N: **1240 min^{-1}***
Starting current I_A: 7.50 A / 4.20 A
Current increase ΔI: 0 %
Dynamic pressure: $p_{d2} = 1.4 \cdot 10^{-6} \cdot q_V^2$ [Pa]
Thermal class: **THCL155***
Min. permitted ambient temperature $t_{R(min)}$: -15 °C
Max. permitted ambient temperature $t_{R(max)}$: 60 °C
Protection class: IP54
Motor protection: Thermal contact
Impeller : High Performance Composite Material, uncoated, black
Motor: 1 coat paint, pebble grey
Conformity: ErP 2013, CE
ErP-Daten
Efficiency η_{statA}: 45.0 %
Efficiency: N_{actual} = 58.0 / N_{target} = 58**
* Rated data
**ErP 2013

Characteristic curve



measured with inlet ring, without guard grille according to ISO 5801

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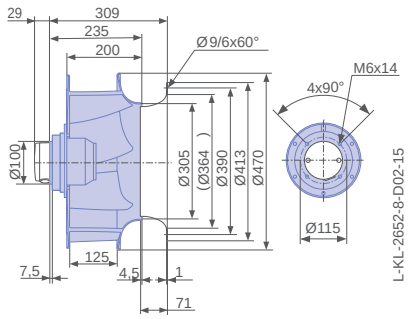
Dimensions [mm]

Free-running motor impeller RH
in installation position H/Vu/Vo



Performance data

Type	Characteristic curve	Voltage U [V]	Operating point	Current I [A]	Motor input power P_1 [W]	Speed n [min^{-1}]	Suction side sound power level L_{WA5} [dB]
RH45V-4DK.4I.1R	I	400	①	0.98	340	1370	74
		400*	②	**1.25***	**580***	**1240***	65
		400	③	1.15	500	1290	74
	II	300	④	0.80	280	1290	72
		300	⑤	1.10	460	1110	62
		300	⑥	1.00	400	1170	72
	III	230	⑦	0.76	230	1180	69
		230	⑧	1.05	350	960	58
		230	⑨	0.98	320	1030	70
	IV	190	⑩	0.74	200	1090	67
		190	⑪	1.00	270	840	54
		190	⑫	0.92	250	910	66
	V	145	⑬	0.70	150	930	62
		145	⑭	0.88	190	690	49
		145	⑮	0.84	180	740	63

*rated data

Fan ordering information

Design	RH*
Installation position	H/Vu/Vo
Electrical connection	Cable box D02 with cable lateral 105cm

Type	**RH45V-4DK.4I.1R**
Article no.	**113256**
Weight [kg]	11.10

* Inlet ring not included

Control technology

Frequency inverter Fcontrol 3~

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Motor protection units 3~

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Transformer-based controllers 3~

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Electronic voltage controllers 3~

Page 506

Vpro

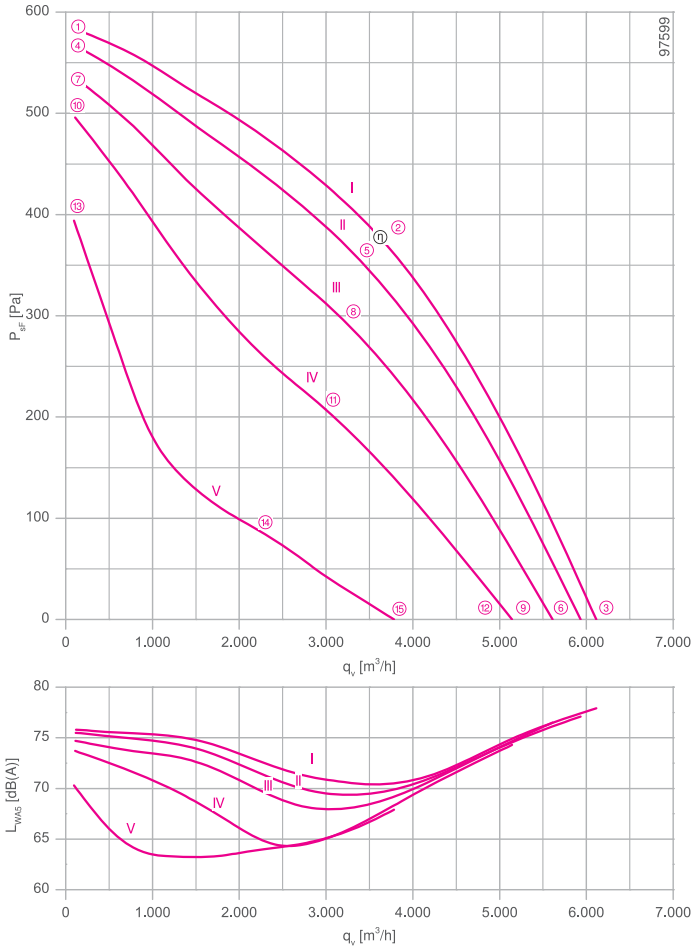
for three phase alternating current, 4 pole

R H 4 5 V - 4 D

Description

Motor technology: AC
Rated voltage U_N: **3~ 230/400 V (Δ/Y) ±10 %***
Rated frequency f_N: **50 Hz*** (60Hz data available)
Motor input power P_1: **0.78 kW***
Rated current I_N: **2.70/1.55 A***
Rated speed n_N: **1430 min^{-1}***
Current increase ΔI: 50 %
Dynamic pressure: $p_{d2} = 1.4 \cdot 10^{-6} \cdot q_V^2$ [Pa]
Thermal class: **THCL155***
Min. permitted ambient temperature $t_{R(min)}$: -15 °C
Max. permitted ambient temperature $t_{R(max)}$: 40 °C
Protection class: IP54
Motor protection: Thermal contact
Impeller : High Performance Composite Material, uncoated, black
Motor: 1 coat paint, pebble grey
Conformity: ErP 2015, CE
ErP-Daten
Efficiency η_{statA}: 50.8 %
Efficiency: N_{actual} = 62.5 / N_{target} = 62**
* Rated data
**ErP 2015

Characteristic curve



measured with inlet ring, without guard grille according to ISO 5801

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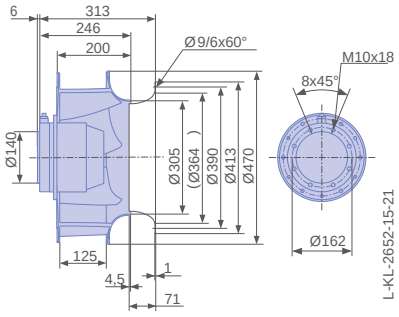
Dimensions [mm]

Free-running motor impeller RH
in installation position H/Vu/Vo



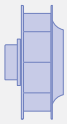
Performance data

Type	Characteristic curve	Voltage U [V]	Operating point	Current I [A]	Motor input power P_1 [W]	Speed n [min^{-1}]	Suction side sound power level L_{WA5} [dB]
RH45V-4DK.6F.1R	I	400	①	1.20	400	1470	76
		400*	②	**1.55***	**780***	**1430***	70
		400	③	1.40	620	1450	78
	II	300	④	0.96	360	1450	76
		300	⑤	1.65	740	1380	70
		300	⑥	1.35	580	1410	77
	III	230	⑦	1.05	350	1410	75
		230	⑧	2.00	700	1270	68
		230	⑨	1.60	560	1330	77
	IV	190	⑩	1.15	340	1350	74
		190	⑪	2.30	640	1110	65
		190	⑫	1.90	540	1220	74
	V	145	⑬	1.40	310	1210	70
		145	⑭	2.30	440	760	64
		145	⑮	2.20	420	900	68

*rated data

Fan ordering information

Design	RH*
Installation position	H/Vu/Vo
Electrical connection	Supply cable lateral 105cm



Type	**RH45V-4DK.6F.1R**
Article no.	**161823**
Weight [kg]	17.00

* Inlet ring not included

Control technology

Frequency inverter Fcontrol 3~

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Motor protection units 3~

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Transformer-based controllers 3~

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Electronic voltage controllers 3~

Page 506

Vpro

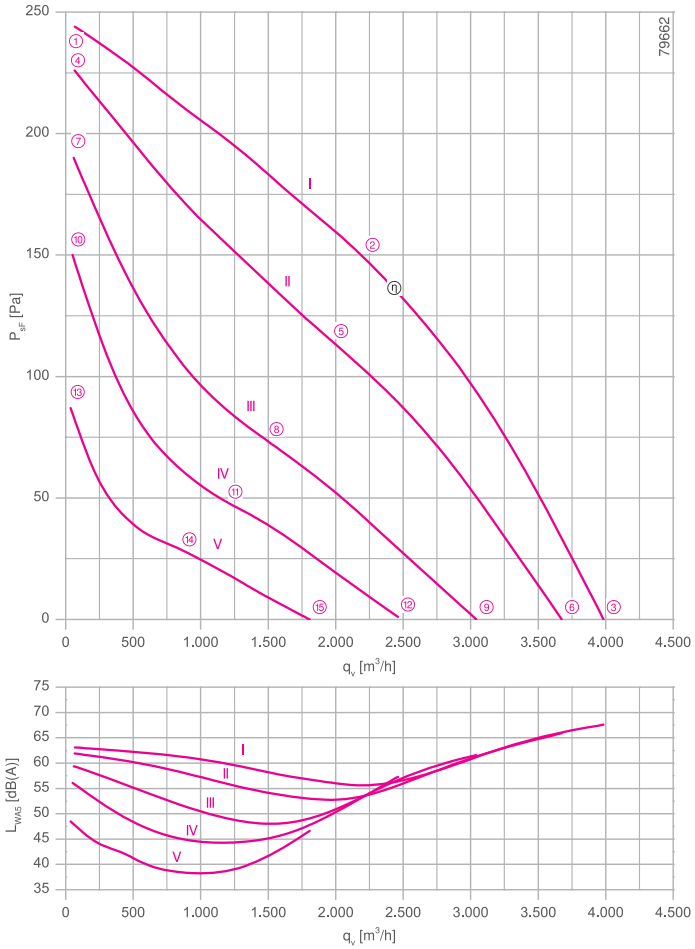
for three phase alternating current, 6 pole

R H 4 5 V - 6 D

Description

Motor technology: AC
Rated voltage U_N: **3~ 230/400 V (Δ/Y) ±10 %***
Rated frequency f_N: **50 Hz*** (60Hz data available)
Motor input power P_1: **0.25 kW***
Rated current I_N: **1.00/0.58 A***
Rated speed n_N: **880 min^{-1}***
Starting current I_A: 2.40 A / 1.40 A
Current increase ΔI: 0 %
Dynamic pressure: $p_{d2} = 1.4 \cdot 10^{-6} \cdot q_V^2$ [Pa]
Thermal class: **THCL155***
Min. permitted conveyor temperature $t_{R(min)}$: -15 °C
Max. permitted conveyor temperature $t_{R(max)}$: 60 °C
Protection class: IP54
Motor protection: Thermal contact
Impeller : High Performance Composite Material, uncoated, black
Motor: 1 coat paint, pebble grey
* Rated data

Characteristic curve



measured with inlet ring, without guard grille according to ISO 5801

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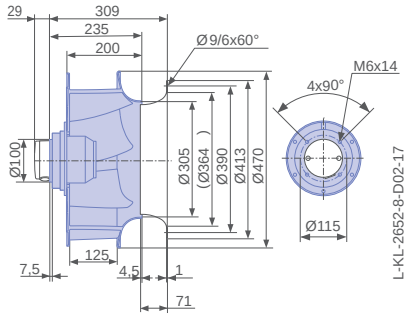
Dimensions [mm]

Free-running motor impeller RH
in installation position H/Vu/Vo



Performance data

Type	Characteristic curve	Voltage U [V]	Operating point	Current I [A]	Motor input power P_1 [W]	Speed n [min^{-1}]	Suction side sound power level L_{WA5} [dB]
RH45V-6DK.4C.1R	I	400	①	0.48	140	950	63
		400*	②	**0.58***	**250***	**880***	56
		400	③	0.54	210	910	68
	II	300	④	0.38	110	910	62
		300	⑤	0.56	200	780	53
		300	⑥	0.48	170	840	66
	III	230	⑦	0.37	100	830	59
		230	⑧	0.52	140	610	48
		230	⑨	0.48	130	700	62
	IV	190	⑩	0.37	80	740	56
		190	⑪	0.46	100	500	45
		190	⑫	0.44	95	570	57
	V	145	⑬	0.34	55	570	49
		145	⑭	0.38	60	370	39
		145	⑮	0.37	60	420	47

*rated data

Fan ordering information

Design	RH*
Installation position	H/Vu/Vo
Electrical connection	Cable box D02 with cable lateral 105cm

Type	**RH45V-6DK.4C.1R**
Article no.	**113266**
Weight [kg]	8.10

* Inlet ring not included

Control technology

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Transformer-based controllers 3~

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Electronic voltage controllers 3~

Page 506

V p r o

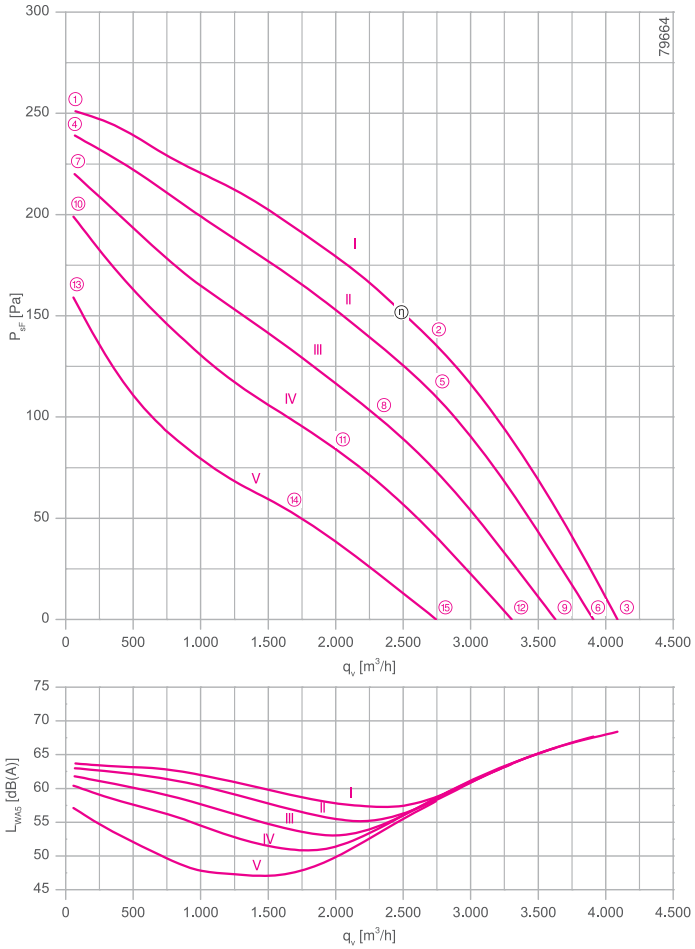
for three phase alternating current, 6 pole

R H 4 5 V - 6 D

Description

Motor technology: AC
Rated voltage U_N: **3~ 230/400 V (Δ/Y) ±10 %***
Rated frequency f_N: **50 Hz*** (60Hz data available)
Motor input power P_1: **0.24 kW***
Rated current I_N: **0.94/0.54 A***
Rated speed n_N: **920 min^{-1}***
Starting current I_A: 3.80 A / 2.20 A
Current increase ΔI: 0 %
Dynamic pressure: $p_{d2} = 1.4 \cdot 10^{-6} \cdot q_V^2$ [Pa]
Thermal class: **THCL155***
Min. permitted ambient temperature $t_{R(min)}$: -15 °C
Max. permitted ambient temperature $t_{R(max)}$: 60 °C
Protection class: IP54
Motor protection: Thermal contact
Impeller : High Performance Composite Material, uncoated, black
Motor: 1 coat paint, pebble grey
Conformity: ErP 2015, CE
ErP-Daten
Efficiency η_{statA}: 45.0 %
Efficiency: N_{actual} = 62.0 / N_{target} = 62**
* Rated data
**ErP 2015

Characteristic curve



measured with inlet ring, without guard grille according to ISO 5801

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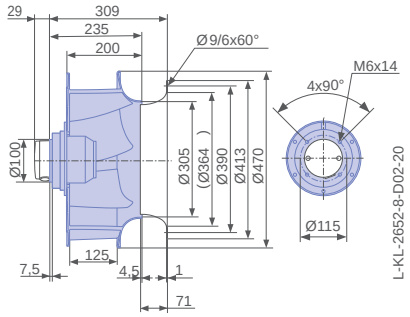
Dimensions [mm]

Free-running motor impeller RH
in installation position H/Vu/Vo



Performance data

Type	Characteristic curve	Voltage U [V]	Operating point	Current I [A]	Motor input power P_1 [W]	Speed n [min^{-1}]	Suction side sound power level L_{WA5} [dB]
RH45V-6DK.4F.1R	I	400	①	0.46	140	960	64
		400*	②	**0.54***	**240***	**920***	59
		400	③	0.50	200	940	68
	II	300	④	0.36	110	940	63
		300	⑤	0.50	210	870	58
		300	⑥	0.44	170	900	68
	III	230	⑦	0.33	100	900	62
		230	⑧	0.52	180	790	53
		230	⑨	0.46	150	840	66
	IV	190	⑩	0.34	90	860	60
		190	⑪	0.52	150	710	51
		190	⑫	0.46	130	760	64
	V	145	⑬	0.35	75	770	57
		145	⑭	0.50	110	570	47
		145	⑮	0.46	100	640	58

*rated data

Fan ordering information

Design	RH*
Installation position	H/Vu/Vo
Electrical connection	Cable box D02 with cable lateral 105cm

Type	**RH45V-6DK.4F.1R**
Article no.	**113257**
Weight [kg]	9.50

* Inlet ring not included

Control technology

Frequency inverter Fcontrol 3~

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Motor protection units 3~

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Transformer-based controllers 3~

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Electronic voltage controllers 3~

Page 506

V p r o

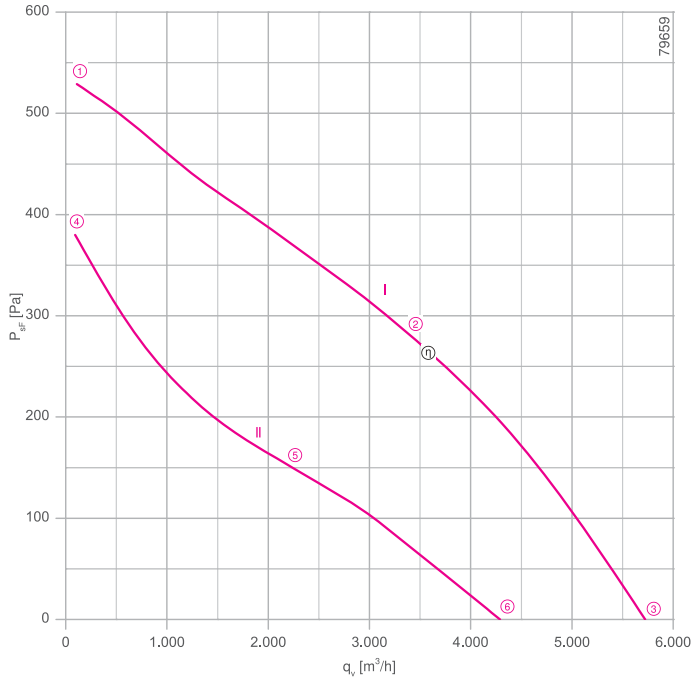
for three phase alternating current, 4-4 pole

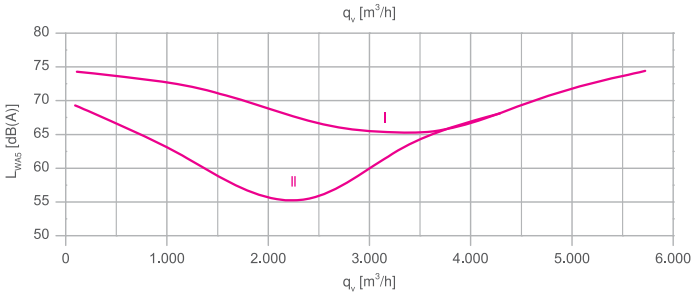
R H 4 5 V-V D

Description

Motor technology: AC
Rated voltage U_N: **3~ 400 V (Δ/Y) ±10 %***
Rated frequency f_N: **50 Hz***
Motor input power P_1: **0,64/0,36 kW***
Rated current I_N: **1.30/0.66 A***
Rated speed n_N: **1250/ 890 min^{-1}***
Starting current I_A: 3.40 A / 1.00 A
Current increase ΔI: 0 %
Dynamic pressure: $p_{d2} = 1.4 \cdot 10^{-6} \cdot q_V^2$ [Pa]
Thermal class: **THCL155***
Min. permitted ambient temperature $t_{R(min)}$: -15 °C
Max. permitted ambient temperature $t_{R(max)}$: 55 °C
Protection class: IP54
Motor protection: Thermal contact
Impeller : High Performance Composite Material, uncoated, black
Motor: 1 coat paint, pebble grey
* Rated data

Characteristic curve





measured with inlet ring, without guard grille according to ISO 5801

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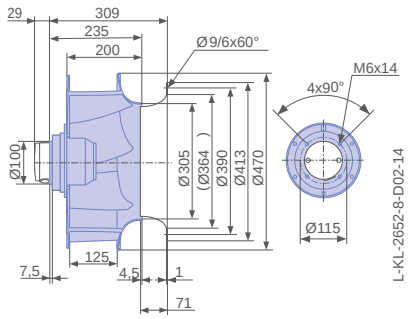
Dimensions [mm]

Free-running motor impeller RH
in installation position H/Vu/Vo



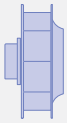
Performance data

Type	Connection	Characteristic curve	Voltage U [V]	Operating point	Current I [A]	Motor input power P_1 [W]	Speed n [min^{-1}]	Suction side sound power level L_{WA5} [dB]
RH45V-VDK.4F.1R	Δ	I	400	①	0.96	360	1380	74
			400*	②	**1.30***	**640***	**1250***	65
			400	③	1.15	540	1300	74
	Y	II	400	④	0.48	260	1170	69
			400*	⑤	**0.66***	**360***	**890***	56
			400	⑥	0.62	330	980	68

*rated data

Fan ordering information

Design	RH*
Installation position	H/Vu/Vo
Electrical connection	Cable box D02 with cable lateral 105cm



Type	**RH45V-VDK.4F.1R**
Article no.	**113282**
Weight [kg]	9.50

* Inlet ring not included

Control technology

Frequency inverter Fcontrol 3~

Page 484

Motor protection units 3~

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Transformer-based controllers 3~

Page 521

Electronic voltage controllers 3~

Page 506

Vpro

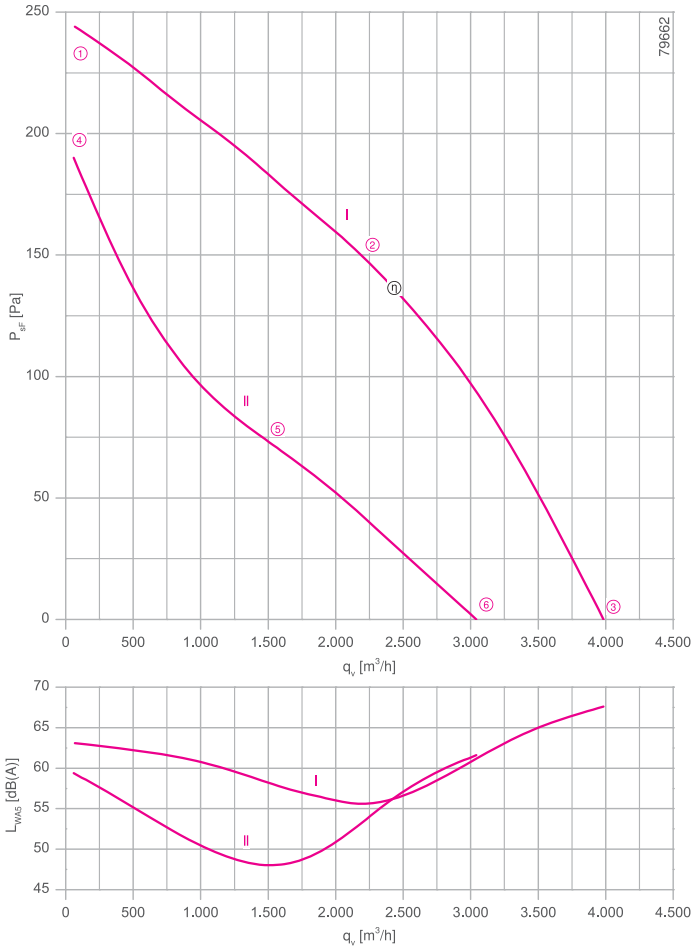
for three phase alternating current, 6-6 pole

RH45V-SD

Description

Motor technology: AC
Rated voltage U_N: **3~ 400 V (Δ/Y) ±10 %***
Rated frequency f_N: **50 Hz*** (60Hz data available)
Motor input power P_1: **0.25/0.14 kW***
Rated current I_N: **0.58/0.30 A***
Rated speed n_N: **880/ 610 min^{-1}***
Starting current I_A: 1.40 A / 0.40 A
Current increase ΔI: 0 %
Dynamic pressure: $p_{d2} = 1.4 \cdot 10^{-6} \cdot q_V^2$ [Pa]
Thermal class: **THCL155***
Min. permitted ambient temperature $t_{R(min)}$: -15 °C
Max. permitted ambient temperature $t_{R(max)}$: 60 °C
Protection class: IP54
Motor protection: Thermal contact
Impeller : High Performance Composite Material, uncoated, black
Motor: 1 coat paint, pebble grey
* Rated data

Characteristic curve



measured with inlet ring, without guard grille according to ISO 5801

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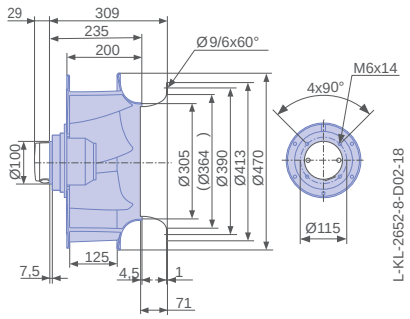
Dimensions [mm]

Free-running motor impeller RH
in installation position H/Vu/Vo



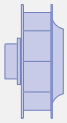
Performance data

Type	Connection	Characteristic curve	Voltage U [V]	Operating point	Current I [A]	Motor input power P_1 [W]	Speed n [min^{-1}]	Suction side sound power level L_{WA5} [dB]
RH45V-SDK.4C.1R	Δ	I	400	①	0.48	140	950	63
			400*	②	**0.58***	**250***	**880***	56
			400	③	0.54	210	910	68
	Y	II	400	④	0.21	100	830	59
			400*	⑤	**0.30***	**140***	**610***	48
			400	⑥	0.28	130	700	62

*rated data

Fan ordering information

Design	RH*
Installation position	H/Vu/Vo
Electrical connection	Cable box D02 with cable lateral 105cm



Type	**RH45V-SDK.4C.1R**
Article no.	**113283**
Weight [kg]	8.10

* Inlet ring not included

Control technology

Frequency inverter Fcontrol 3~

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Motor protection units 3~

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Transformer-based controllers 3~

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Electronic voltage controllers 3~

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Vpro

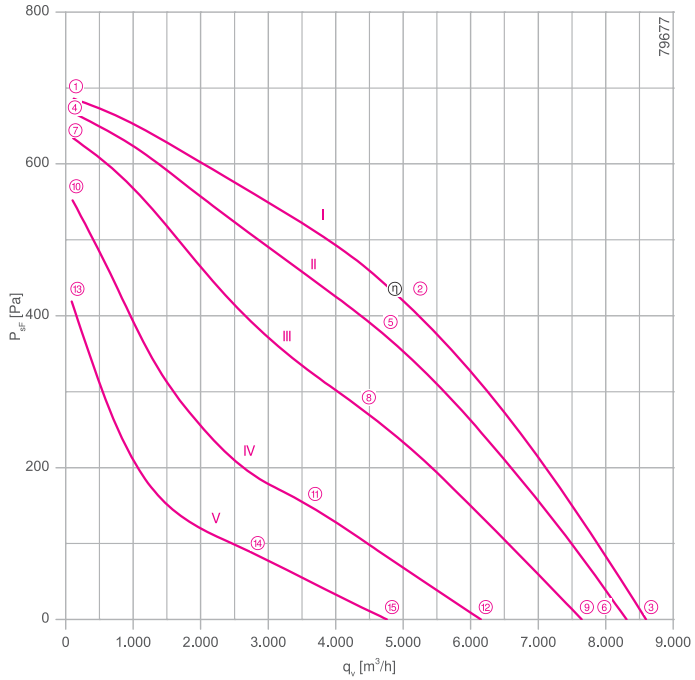
for single phase alternating current, 4 pole

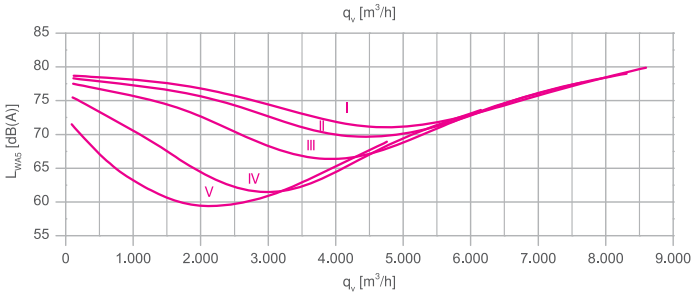
RH 50V-4E

Description

Motor technology: AC
Rated voltage U_N: **1~ 230 V±10 %***
Rated frequency f_N: **50 Hz***
Motor input power P_1: **1.30 kW***
Rated current I_N: **5.80 A***
Rated speed n_N: **1340 min^{-1}***
Current increase ΔI: 5 %
Service capacitor C_{400V}: 30.0 µF
Dynamic pressure: $p_{d2} = 9.3 \cdot 10^{-7} \cdot q_V^2$ [Pa]
Thermal class: **THCL155***
Min. permitted ambient temperature $t_{R(min)}$: -15 °C
Max. permitted ambient temperature $t_{R(max)}$: 60 °C
Protection class: IP54
Motor protection: Thermal contact
Impeller : High Performance Composite Material, uncoated, black
Motor: 1 coat paint, pebble grey
* Rated data

Characteristic curve





measured with inlet ring, without guard grille according to ISO 5801

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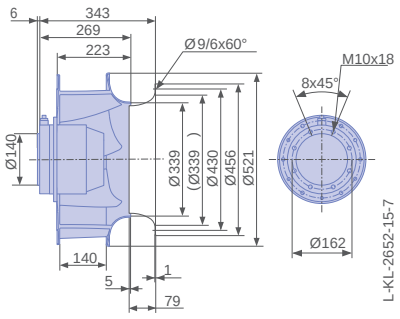
Dimensions [mm]

Free-running motor impeller RH
in installation position H/Vu/Vo



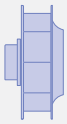
Performance data

Type	Characteristic curve	Voltage U [V]	Operating point	Current I [A]	Motor input power P_1 [W]	Speed n [min^{-1}]	Suction side sound power level L_{WA5} [dB]
RH50V-4EK.6K.1R	I	230	①	3.40	740	1440	79
		230*	②	**5.80***	**1300***	**1340***	71
		230	③	4.80	1100	1380	80
	II	200	④	3.40	680	1420	78
		200	⑤	6.00	1200	1260	70
		200	⑥	5.00	1000	1340	79
	III	170	⑦	3.60	600	1380	78
		170	⑧	6.20	1000	1120	67
		170	⑨	5.20	880	1240	78
	IV	135	⑩	3.80	500	1290	76
		135	⑪	5.80	700	860	62
		135	⑫	5.20	660	1010	74
	V	110	⑬	3.90	420	1130	72
		110	⑭	5.00	480	660	60
		110	⑮	4.80	480	780	69

*rated data

Fan ordering information

Design	RH*
Installation position	H/Vu/Vo
Electrical connection	Supply cable lateral 105cm



Type	**RH50V-4EK.6K.1R**
Article no.	**113310**
Weight [kg]	20.70

* Inlet ring not included

Control technology

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Transformer-based controllers 1~

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Electronic voltage controllers 1~

Page 492

Vpro

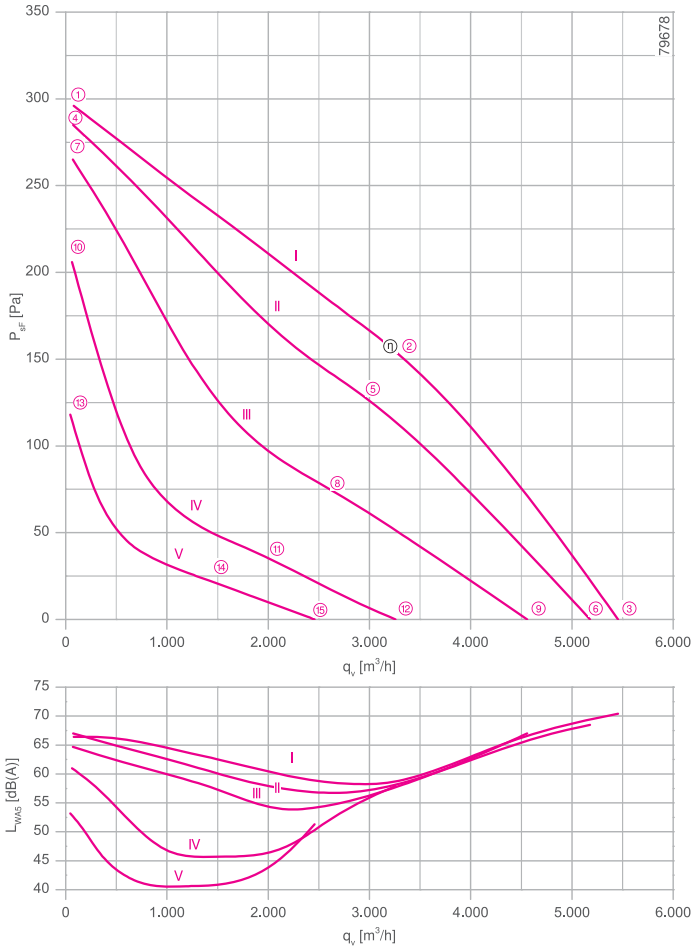
for single phase alternating current, 6 pole

RH50V-6E

Description

Motor technology: AC
Rated voltage U_N: **1~ 230 V±10 %***
Rated frequency f_N: **50 Hz***
Motor input power P_1: **0.38 kW***
Rated current I_N: **1.65 A***
Rated speed n_N: **840 min^{-1}***
Starting current I_A: 2.60 A
Current increase ΔI: 0 %
Service capacitor C_{400V}: 12.0 µF
Dynamic pressure: $p_{d2} = 9.3 \cdot 10^{-7} \cdot q_v^2$ [Pa]
Thermal class: **THCL155***
Min. permitted ambient temperature $t_{R(min)}$: -15 °C
Max. permitted ambient temperature $t_{R(max)}$: 60 °C
Protection class: IP54
Motor protection: Thermal contact
Impeller : High Performance Composite Material, uncoated, black
Motor: 1 coat paint, pebble grey
* Rated data

Characteristic curve

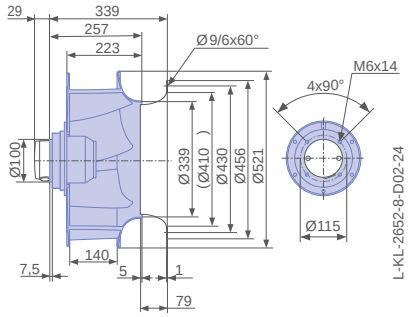


measured with inlet ring, without guard grille according to ISO 5801

- Inlet ring 00275572 Page 450
- Connection diagram 1360-104XA SW Page 549
- System components Page 448

Dimensions [mm]

Free-running motor impeller RH
in installation position H/Vu/Vo



Performance data

Type	Characteristic curve	Voltage U [V]	Operating point	Current I [A]	Motor input power P_1 [W]	Speed n [min^{-1}]	Suction side sound power level L_{WA5} [dB]
RH50V-6EK.4F.1R	I	230	①	1.20	270	940	66
		230*	②	**1.65***	**380***	**840***	59
		230	③	1.45	330	890	70
	II	200	④	1.10	220	920	67
		200	⑤	1.60	320	770	57
		200	⑥	1.40	280	850	69
	III	170	⑦	1.10	180	890	65
		170	⑧	1.50	240	620	54
		170	⑨	1.35	230	750	67
	IV	135	⑩	1.05	140	790	61
		135	⑪	1.20	160	490	47
		135	⑫	1.20	150	540	58
	V	110	⑬	0.96	100	600	53
		110	⑭	1.00	100	350	41
		110	⑮	1.00	100	410	51

*rated data

Fan ordering information

Design	RH*
Installation position	H/Vu/Vo
Electrical connection	Cable box D02 with cable lateral 105cm

Type	**RH50V-6EK.4F.1R**
Article no.	**113311**
Weight [kg]	10.50

* Inlet ring not included

Control technology

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V p r o

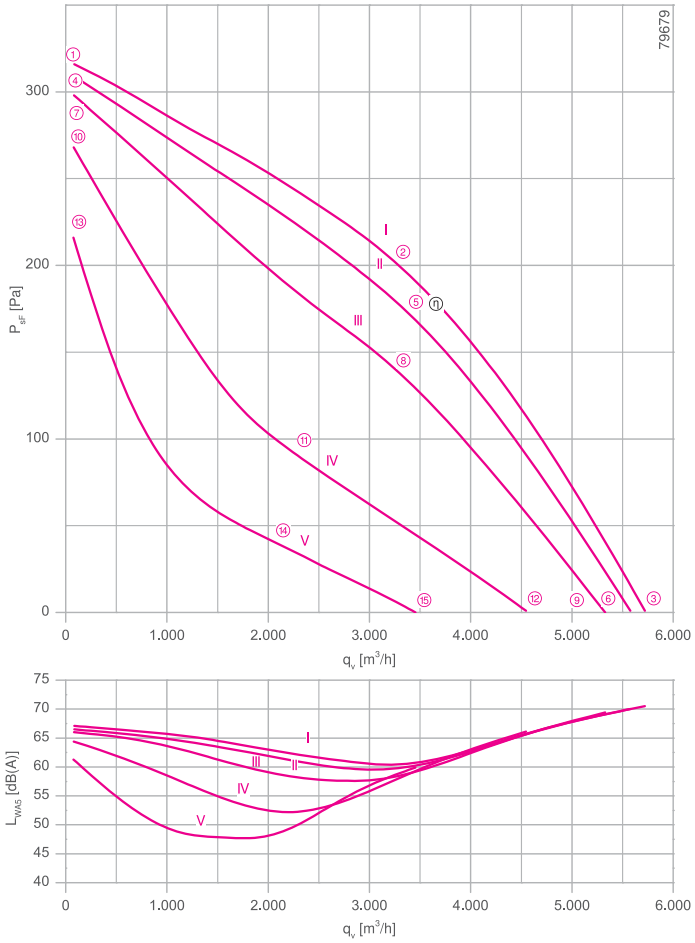
for single phase alternating current, 6 pole

R H 5 0 V - 6 E

Description

Motor technology: AC
Rated voltage U_N: **1~ 230 V±10 %***
Rated frequency f_N: **50 Hz*** (60Hz data available)
Motor input power P_1: **0.46 kW***
Rated current I_N: **2.20 A***
Rated speed n_N: **910 min^{-1}***
Service capacitor C_{400V}: 10.0 μF
Dynamic pressure: $p_{d2} = 9.3 \cdot 10^{-7} \cdot q_V^2$ [Pa]
Thermal class: **THCL155***
Min. permitted ambient temperature $t_{R(min)}$: -15 °C
Max. permitted ambient temperature $t_{R(max)}$: 40 °C
Protection class: IP54
Motor protection: Thermal contact
Impeller : High Performance Composite Material, uncoated, black
Motor: 1 coat paint, pebble grey
* Rated data

Characteristic curve



measured with inlet ring, without guard grille according to ISO 5801

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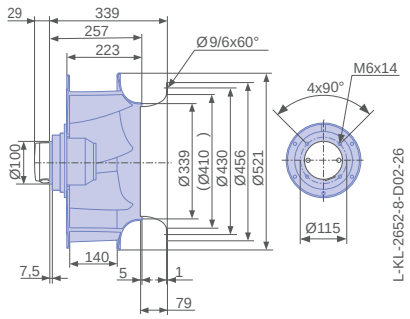
Dimensions [mm]

Free-running motor impeller RH
in installation position H/Vu/Vo



Performance data

Type	Characteristic curve	Voltage U [V]	Operating point	Current I [A]	Motor input power P_1 [W]	Speed n [min^{-1}]	Suction side sound power level L_{WA5} [dB]
RH50V-6EK.4I.1R	I	230	①	1.60	300	960	67
		230*	②	**2.20***	**460***	**910***	60
		230	③	1.90	380	930	71
	II	200	④	1.35	250	950	67
		200	⑤	2.10	400	870	60
		200	⑥	1.80	330	910	70
	III	170	⑦	1.30	210	930	66
		170	⑧	2.20	360	810	58
		170	⑨	1.80	290	870	69
	IV	135	⑩	1.35	170	890	64
		135	⑪	2.30	280	620	52
		135	⑫	1.95	250	750	66
	V	110	⑬	1.45	150	800	61
		110	⑭	2.00	200	470	48
		110	⑮	1.95	190	570	60

*rated data

Fan ordering information

Design	RH*
Installation position	H/Vu/Vo
Electrical connection	Cable box D02 with cable lateral 105cm

Type	**RH50V-6EK.4I.1R**
Article no.	**113380**
Weight [kg]	12.10

* Inlet ring not included

Control technology

Frequency inverter Fcontrol 1~

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Transformer-based controllers 1~

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Electronic voltage controllers 1~

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V p r o

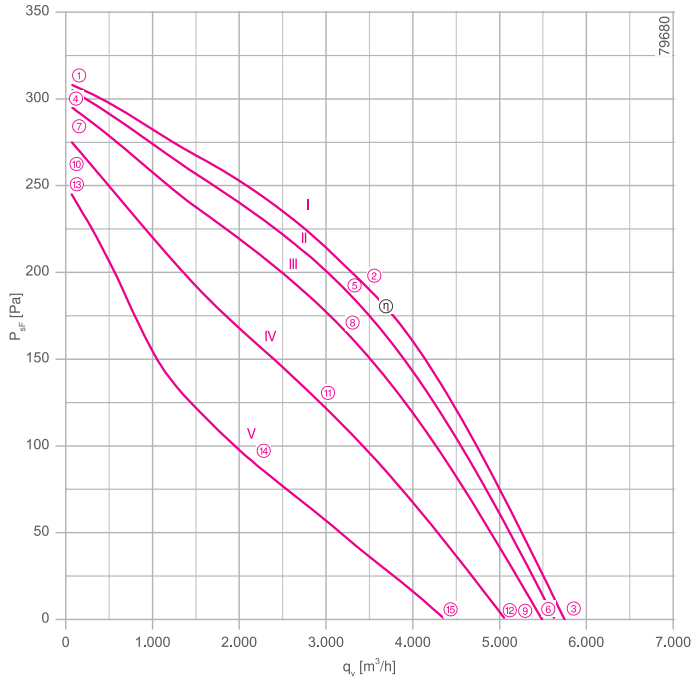
for single phase alternating current, 6 pole

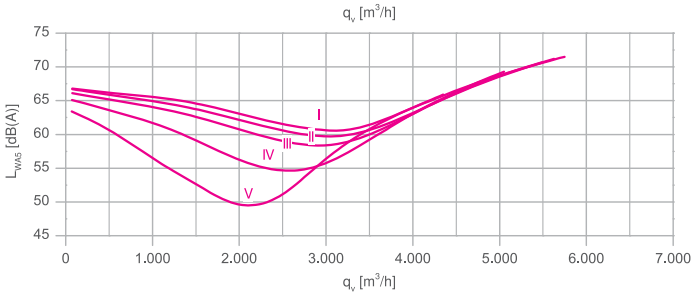
R H 5 0 V - 6 E

Description

Motor technology: AC
Rated voltage U_N: **1~ 230 V±10 %***
Rated frequency f_N: **50 Hz*** (60Hz data available)
Motor input power P_1: **0.48 kW***
Rated current I_N: **2.40 A***
Rated speed n_N: **930 min^{-1}***
Current increase ΔI: 10 %
Service capacitor C_{400V}: 14.0 µF
Dynamic pressure: $p_{d2} = 9.3 \cdot 10^{-7} \cdot q_V^2$ [Pa]
Thermal class: **THCL155***
Min. permitted ambient temperature $t_{R(min)}$: -15 °C
Max. permitted ambient temperature $t_{R(max)}$: 60 °C
Protection class: IP54
Motor protection: Thermal contact
Impeller : High Performance Composite Material, uncoated, black
Motor: 1 coat paint, pebble grey
* Rated data

Characteristic curve





measured with inlet ring, without guard grille according to ISO 5801

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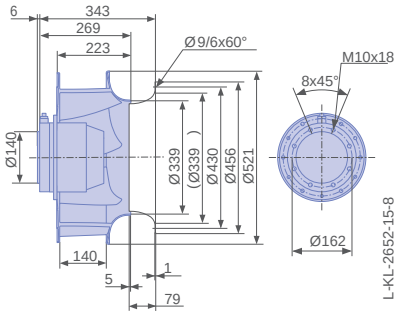
Dimensions [mm]

Free-running motor impeller RH
in installation position H/Vu/Vo



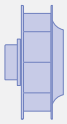
Performance data

Type	Characteristic curve	Voltage U [V]	Operating point	Current I [A]	Motor input power P_1 [W]	Speed n [min^{-1}]	Suction side sound power level L_{WA5} [dB]
RH50V-6EK.6F.1R	I	230	①	2.00	330	970	67
		230*	②	**2.40***	**480***	**930***	63
		230	③	2.20	420	950	72
	II	200	④	1.65	270	960	67
		200	⑤	2.30	420	910	60
		200	⑥	1.95	350	930	71
	III	170	⑦	1.45	220	940	66
		170	⑧	2.30	360	870	59
		170	⑨	1.90	310	900	71
	IV	135	⑩	1.40	180	910	65
		135	⑪	2.40	300	770	55
		135	⑫	2.00	260	840	69
	V	110	⑬	1.50	150	860	63
		110	⑭	2.40	240	630	50
		110	⑮	2.10	220	720	66

*rated data

Fan ordering information

Design	RH*
Installation position	H/Vu/Vo
Electrical connection	Supply cable lateral 105cm



Type	**RH50V-6EK.6F.1R**
Article no.	**113381**
Weight [kg]	16.90

* Inlet ring not included

Control technology

Frequency inverter Fcontrol 1~

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Motor protection units 1~

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Transformer-based controllers 1~

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Electronic voltage controllers 1~

Page 492

V p r o

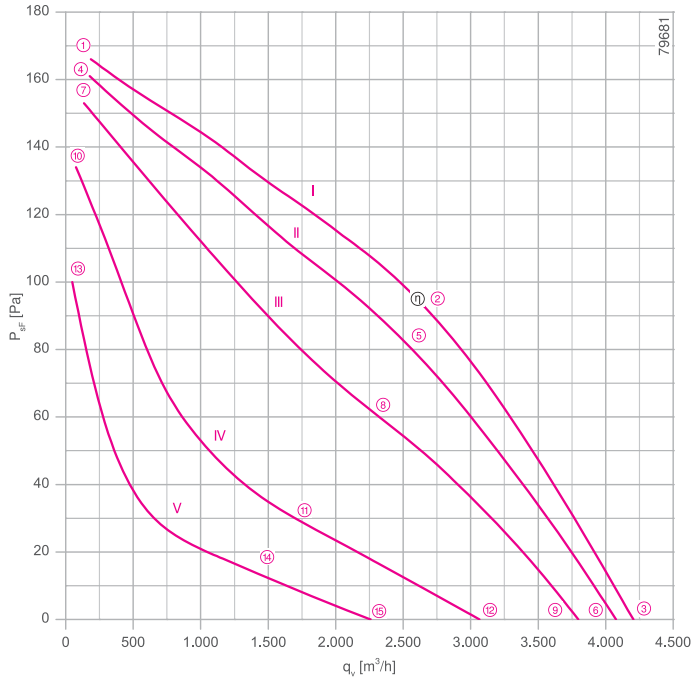
for single phase alternating current, 8 pole

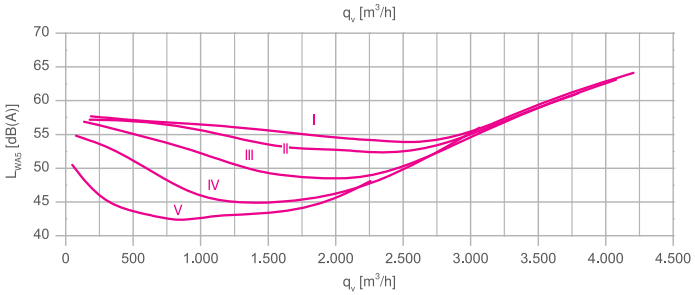
R H 5 0 V - 8 E

Description

Motor technology: AC
Rated voltage U_N: **1~ 230 V±10 %***
Rated frequency f_N: **50 Hz***
Motor input power P_1: **0.21 kW***
Rated current I_N: **0,98 A***
Rated speed n_N: **660 min^{-1}***
Current increase ΔI: 0 %
Service capacitor C_{400V}: 5.0 µF
Dynamic pressure: $p_{d2} = 9.3 \cdot 10^{-7} \cdot q_V^2$ [Pa]
Thermal class: **THCL155***
Min. permitted ambient temperature $t_{R(min)}$: -15 °C
Max. permitted ambient temperature $t_{R(max)}$: 60 °C
Protection class: IP54
Motor protection: Thermal contact
Impeller : High Performance Composite Material, uncoated, black
Motor: 1 coat paint, pebble grey
* Rated data

Characteristic curve





measured with inlet ring, without guard grille according to ISO 5801

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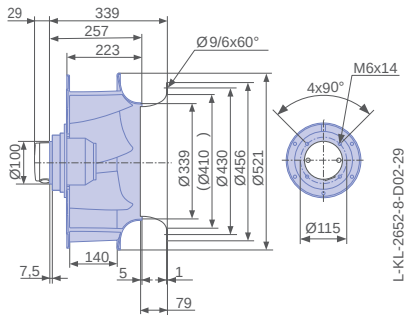
Dimensions [mm]

Free-running motor impeller RH
in installation position H/Vu/Vo



Performance data

Type	Characteristic curve	Voltage U [V]	Operating point	Current I [A]	Motor input power P_1 [W]	Speed n [min^{-1}]	Suction side sound power level L_{WA5} [dB]
RH50V-8EK.4F.1R	I	230	①	0.80	160	700	58
		230*	②	**0.98***	**210***	**660***	54
		230	③	0.88	190	680	64
	II	200	④	0.70	130	690	57
		200	⑤	0.98	180	620	52
		200	⑥	0.82	160	660	63
	III	170	⑦	0.66	110	680	57
		170	⑧	0.98	150	550	48
		170	⑨	0.82	130	620	61
	IV	135	⑩	0.64	80	630	55
		135	⑪	0.92	110	390	45
		135	⑫	0.84	100	500	56
	V	110	⑬	0.64	65	550	51
		110	⑭	0.78	75	300	43
		110	⑮	0.76	75	370	48

*rated data

Fan ordering information

Design	RH*
Installation position	H/Vu/Vo
Electrical connection	Cable box D02 with cable lateral 105cm

Type	**RH50V-8EK.4F.1R**
Article no.	**113312**
Weight [kg]	10.50

* Inlet ring not included

Control technology

Frequency inverter Fcontrol 1~

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Motor protection units 1~

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Electronic voltage controllers 1~

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Vpro

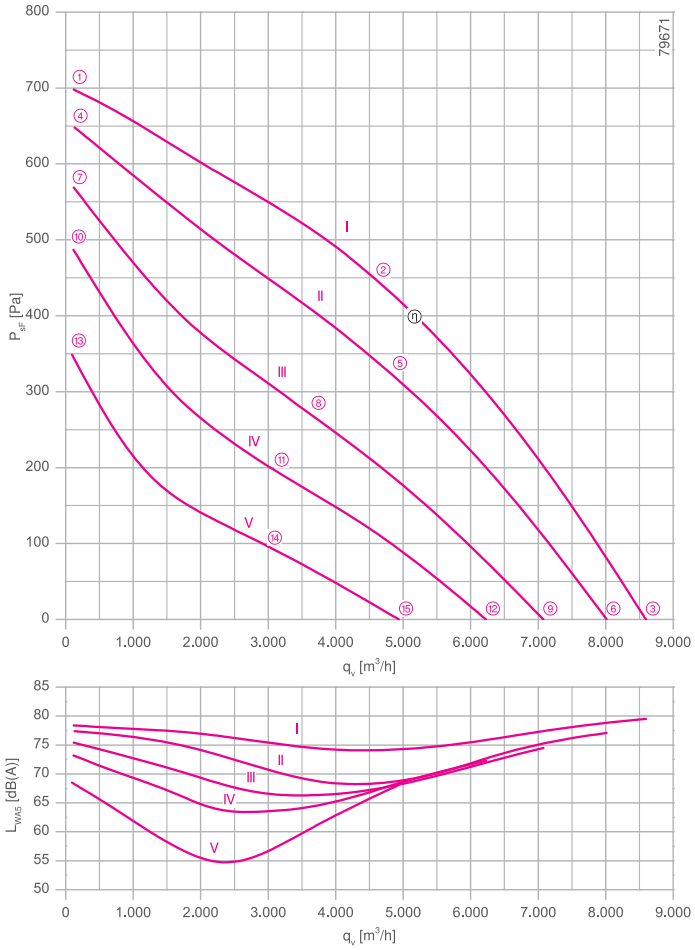
for three phase alternating current, 4 pole

RH50V-4D

Description

Motor technology: AC
Rated voltage U_N: **3~ 230/400 V (Δ/Y) ±10 %***
Rated frequency f_N: **50 Hz***
Motor input power P_1: **1.20 kW***
Rated current I_N: **3.70/2.10 A***
Rated speed n_N: **1330 min^{-1}***
Starting current I_A: 17.00 A / 9,50 A
Current increase ΔI: 10 %
Dynamic pressure: $p_{d2} = 9.3 \cdot 10^{-7} \cdot q_V^2$ [Pa]
Thermal class: **THCL155***
Min. permitted ambient temperature $t_{R(min)}$: -15 °C
Max. permitted ambient temperature $t_{R(max)}$: 55 °C
Protection class: IP54
Motor protection: Thermal contact
Impeller : High Performance Composite Material, uncoated, black
Motor: 1 coat paint, pebble grey
Conformity: ErP 2013, CE
ErP-Daten
Efficiency η_{statA}: 48.5 %
Efficiency: N_{actual} = 58.1 / N_{target} = 58**
* Rated data
**ErP 2013

Characteristic curve



measured with inlet ring, without guard grille according to ISO 5801

Inlet ring	00275572	Page 450
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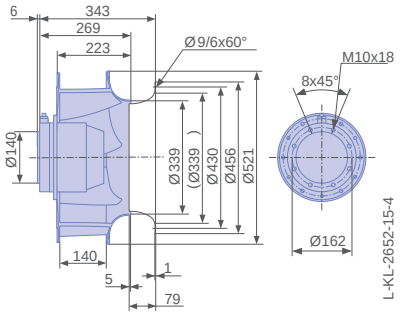
Dimensions [mm]

Free-running motor impeller RH
in installation position H/Vu/Vo



Performance data

Type	Characteristic curve	Voltage U [V]	Operating point	Current I [A]	Motor input power P_1 [W]	Speed n [min^{-1}]	Suction side sound power level L_{WA5} [dB]
RH50V-4DK.6F.1R	I	400	①	1.60	800	1400	78
		400*	②	**2.10***	**1200***	**1330***	74
		400	③	1.80	960	1370	80
	II	300	④	1.30	540	1370	77
		300	⑤	2.30	1050	1210	69
		300	⑥	1.95	860	1280	77
	III	230	⑦	1.40	480	1280	75
		230	⑧	2.40	820	1040	66
		230	⑨	2.10	720	1140	75
	IV	190	⑩	1.50	420	1190	73
		190	⑪	2.30	640	890	64
		190	⑫	2.10	580	1000	72
	V	145	⑬	1.55	330	1010	69
		145	⑭	2.00	420	710	56
		145	⑮	1.90	400	800	68

*rated data

J

Fan ordering information

Design	RH*
Installation position	H/Vu/Vo
Electrical connection	Supply cable lateral 105cm

Type	**RH50V-4DK.6F.1R**
Article no.	**113267**
Weight [kg]	16.90

* Inlet ring not included

Control technology

Frequency inverter Fcontrol 3~

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Motor protection units 3~

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Transformer-based controllers 3~

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Electronic voltage controllers 3~

Page 506

Vpro

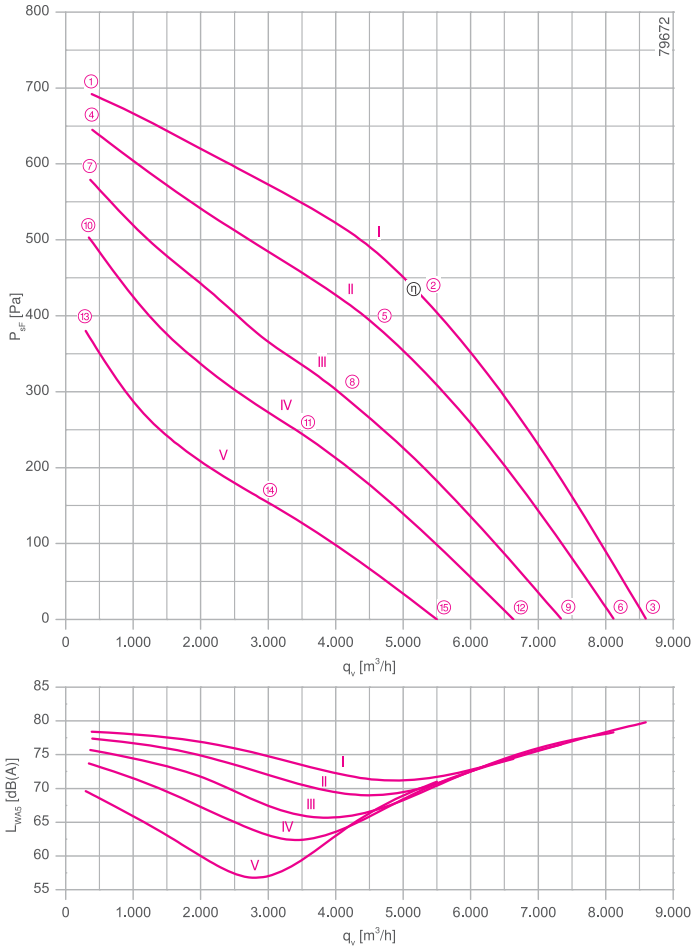
for three phase alternating current, 4 pole

RH50V-4D

Description

Motor technology: AC
Rated voltage U_N: **3~ 230/400 V (Δ/Y) ±10 %***
Rated frequency f_N: **50 Hz*** (60Hz data available)
Motor input power P_1: **1.25 kW***
Rated current I_N: **4.90/2.80 A***
Rated speed n_N: **1360 min^{-1}***
Starting current I_A: 20,00 A / 11.00 A
Current increase ΔI: 0 %
Dynamic pressure: $p_{d2} = 9.3 \cdot 10^{-7} \cdot q_V^2$ [Pa]
Thermal class: **THCL155***
Min. permitted ambient temperature $t_{R(min)}$: -15 °C
Max. permitted ambient temperature $t_{R(max)}$: 60 °C
Protection class: IP54
Motor protection: Thermal contact
Impeller : High Performance Composite Material, uncoated, black
Motor: 1 coat paint, pebble grey
Conformity: ErP 2015, CE
ErP-Daten
Efficiency η_{statA}: 52.5 %
Efficiency: $N_{actual} = 62.0$ / $N_{target} = 62$**
* Rated data
**ErP 2015

Characteristic curve



measured with inlet ring, without guard grille according to ISO 5801

Inlet ring	00275572	Page 450
Connection diagram	1360-106XA SW	Page 549
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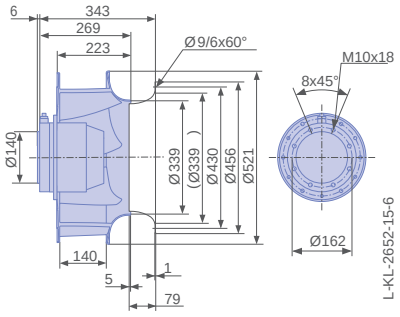
Dimensions [mm]

Free-running motor impeller RH
in installation position H/Vu/Vo



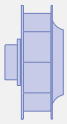
Performance data

Type	Characteristic curve	Voltage U [V]	Operating point	Current I [A]	Motor input power P_1 [W]	Speed n [min^{-1}]	Suction side sound power level L_{WA5} [dB]
RH50V-4DK.6K.1R	I	400	①	2.10	660	1440	78
		400*	②	**2.80***	**1250***	**1360***	71
		400	③	2.50	1000	1400	80
	II	300	④	1.75	600	1390	77
		300	⑤	2.60	1050	1260	69
		300	⑥	2.30	880	1320	78
	III	230	⑦	1.80	540	1310	76
		230	⑧	2.70	840	1110	66
		230	⑨	2.30	720	1200	77
	IV	190	⑩	1.80	460	1220	74
		190	⑪	2.60	680	1000	64
		190	⑫	2.30	600	1090	74
	V	145	⑬	1.80	360	1070	70
		145	⑭	2.30	460	820	58
		145	⑮	2.10	420	910	71

*rated data

Fan ordering information

Design	RH*
Installation position	H/Vu/Vo
Electrical connection	Supply cable lateral 105cm



Type	**RH50V-4DK.6K.1R**
Article no.	**113290**
Weight [kg]	20.70

* Inlet ring not included

Control technology

Frequency inverter Fcontrol 3~

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Motor protection units 3~

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Transformer-based controllers 3~

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Electronic voltage controllers 3~

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V p r o

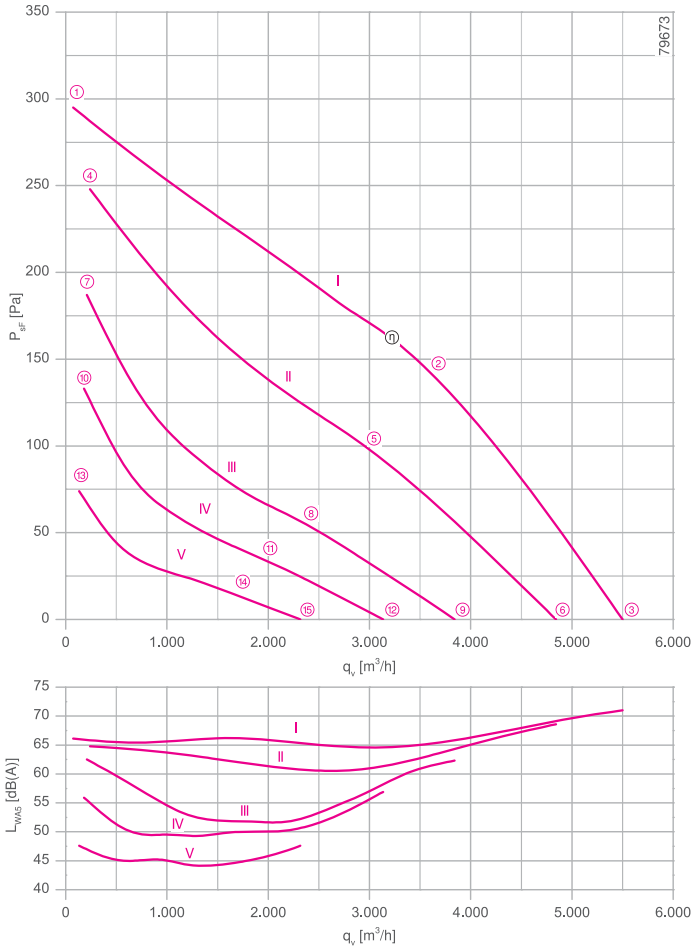
for three phase alternating current, 6 pole

R H 5 0 V - 6 D

Description

Motor technology: AC
Rated voltage U_N: **3~ 230/400 V (Δ/Y) ±10 %***
Rated frequency f_N: **50 Hz***
Motor input power P_1: **0.39 kW***
Rated current I_N: **1.40/0.80 A***
Rated speed n_N: **840 min^{-1}***
Starting current I_A: 3.20 A / 1.80 A
Current increase ΔI: 0 %
Dynamic pressure: $p_{d2} = 9.3 \cdot 10^{-7} \cdot q_V^2$ [Pa]
Thermal class: **THCL155***
Min. permitted ambient temperature $t_{R(min)}$: -15 °C
Max. permitted ambient temperature $t_{R(max)}$: 60 °C
Protection class: IP54
Motor protection: Thermal contact
Impeller : High Performance Composite Material, uncoated, black
Motor: 1 coat paint, pebble grey
* Rated data

Characteristic curve



measured with inlet ring, without guard grille according to ISO 5801

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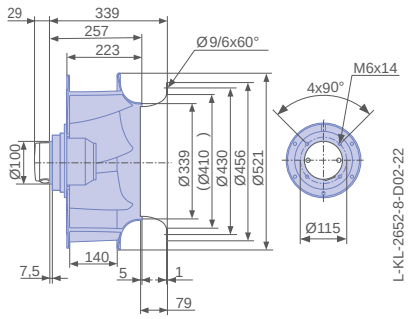
Dimensions [mm]

Free-running motor impeller RH
in installation position H/Vu/Vo



Performance data

Type	Characteristic curve	Voltage U [V]	Operating point	Current I [A]	Motor input power P_1 [W]	Speed n [min^{-1}]	Suction side sound power level L_{WA5} [dB]
RH50V-6DK.4F.1R	I	400	①	0.56	200	940	66
		400*	②	**0.80***	**390***	**840***	65
		400	③	0.70	310	890	71
	II	300	④	0.54	190	860	65
		300	⑤	0.80	300	700	61
		300	⑥	0.68	250	780	69
	III	230	⑦	0.54	160	750	63
		230	⑧	0.72	200	540	52
		230	⑨	0.66	190	620	62
	IV	190	⑩	0.54	120	640	56
		190	⑪	0.62	140	440	50
		190	⑫	0.60	140	510	57
	V	145	⑬	0.46	80	480	48
		145	⑭	0.50	80	320	44
		145	⑮	0.50	80	380	48

*rated data

Fan ordering information

Design	RH*
Installation position	H/Vu/Vo
Electrical connection	Cable box D02 with cable lateral 105cm

Type	**RH50V-6DK.4F.1R**
Article no.	**113268**
Weight [kg]	10.50

* Inlet ring not included

Control technology

Frequency inverter Fcontrol 3~

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Motor protection units 3~

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Transformer-based controllers 3~

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Electronic voltage controllers 3~

Page 506

V p r o

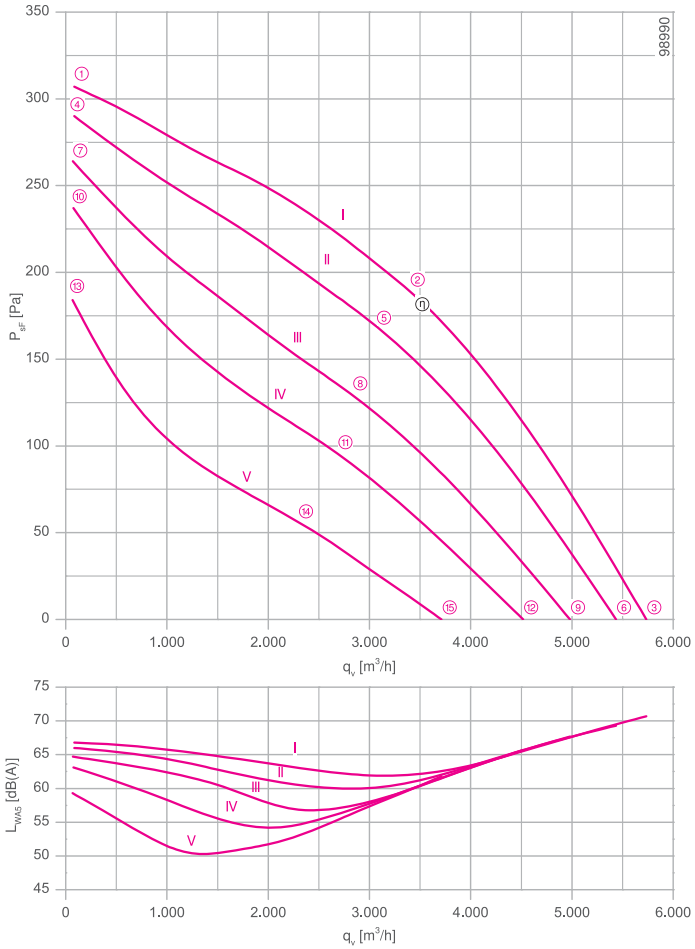
for three phase alternating current, 6 pole

R H 5 0 V - 6 D

Description

Motor technology: AC
Rated voltage U_N: **3~ 230/400 V (Δ/Y) ±10 %***
Rated frequency f_N: **50 Hz*** (60Hz data available)
Motor input power P_1: **0.39 kW***
Rated current I_N: **1.40/0.80 A***
Rated speed n_N: **920 min^{-1}***
Starting current I_A: 6.50 A / 3.60 A
Current increase ΔI: 10 %
Thermal class: **THCL155***
Min. permitted ambient temperature $t_{R(min)}$: -15 °C
Max. permitted ambient temperature $t_{R(max)}$: 60 °C
Protection class: IP54
Motor protection: Thermal contact
Impeller : High Performance Composite Material, uncoated, black
Motor: 1 coat paint, pebble grey
Conformity: ErP 2015, CE
ErP-Daten
Efficiency η_{statA}: 47.3 %
Efficiency: N_{actual} = 62.0 / N_{target} = 62**
* Rated data
**ErP 2015

Characteristic curve



measured with inlet ring, without guard grille according to ISO 5801

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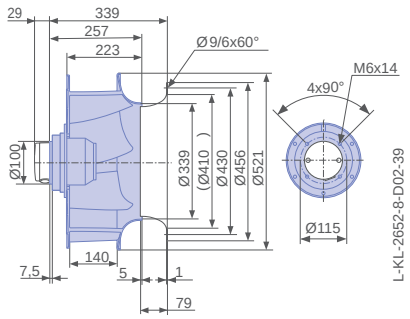
Dimensions [mm]

Free-running motor impeller RH
in installation position H/Vu/Vo



Performance data

Type	Characteristic curve	Voltage U [V]	Operating point	Current I [A]	Motor input power P_1 [W]	Speed n [min^{-1}]	Suction side sound power level L_{WA5} [dB]
RH50V-6DK.4I.1R	I	400	①	0.64	200	960	67
		400*	②	**0.80***	**390***	**920***	62
		400	③	0.72	310	940	71
	II	300	④	0.52	170	940	66
		300	⑤	0.78	340	850	60
		300	⑥	0.66	270	890	69
	III	230	⑦	0.50	150	890	65
		230	⑧	0.82	290	760	57
		230	⑨	0.70	240	820	68
	IV	190	⑩	0.52	140	840	63
		190	⑪	0.84	240	670	56
		190	⑫	0.72	210	740	66
	V	145	⑬	0.54	120	750	59
		145	⑭	0.78	170	540	52
		145	⑮	0.70	160	610	62

*rated data

Fan ordering information

Design	RH*
Installation position	H/Vu/Vo
Electrical connection	Cable box D02 with cable lateral 65cm

Type	**RH50V-6DK.4I.1R**
Article no.	**160178**
Weight [kg]	12.10

* Inlet ring not included

Control technology

Frequency inverter Fcontrol 3~

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Motor protection units 3~

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Transformer-based controllers 3~

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Electronic voltage controllers 3~

Page 506

V p r o

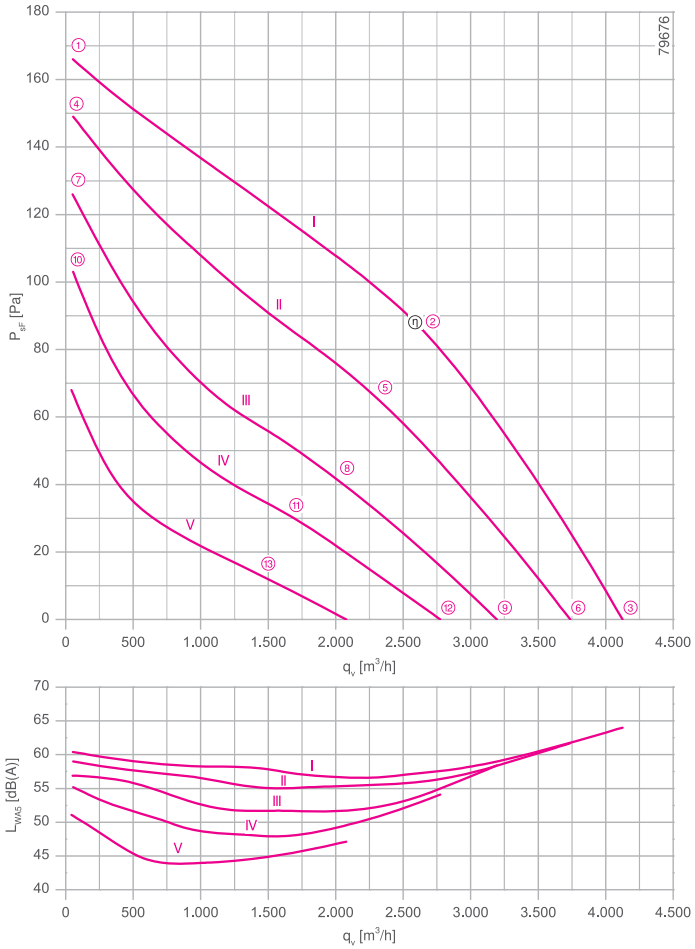
for three phase alternating current, 8 pole

R H 5 0 V - 8 D

Description

Motor technology: AC
Rated voltage U_N: **3~ 230/400 V (Δ/Y) ±10 %***
Rated frequency f_N: **50 Hz*** (60Hz data available)
Motor input power P_1: **0.18 kW***
Rated current I_N: **0.68/0.39 A***
Rated speed n_N: **640 min^{-1}***
Starting current I_A: 1.50 A / 0.85 A
Current increase ΔI: 0 %
Dynamic pressure: $p_{d2} = 9.3 \cdot 10^{-7} \cdot q_V^2$ [Pa]
Thermal class: **THCL155***
Min. permitted ambient temperature $t_{R(min)}$: -15 °C
Max. permitted ambient temperature $t_{R(max)}$: 60 °C
Protection class: IP54
Motor protection: Thermal contact
Impeller : High Performance Composite Material, uncoated, black
Motor: 1 coat paint, pebble grey
* Rated data

Characteristic curve



measured with inlet ring, without guard grille according to ISO 5801

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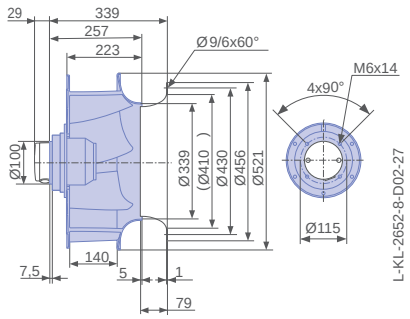
Dimensions [mm]

Free-running motor impeller RH
in installation position H/Vu/Vo



Performance data

Type	Characteristic curve	Voltage U [V]	Operating point	Current I [A]	Motor input power P_1 [W]	Speed n [min^{-1}]	Suction side sound power level L_{WA5} [dB]
RH50V-8DK.4C.1R	I	400	①	0.33	110	700	60
		400*	②	**0.39***	**180***	**640***	57
		400	③	0.36	150	670	64
	II	300	④	0.26	85	670	59
		300	⑤	0.36	140	560	56
		300	⑥	0.32	120	600	62
	III	230	⑦	0.24	70	610	57
		230	⑧	0.34	110	460	51
		230	⑨	0.30	95	520	58
	IV	190	⑩	0.23	60	550	55
		190	⑪	0.31	80	390	48
		190	⑫	0.29	75	450	54
	V	145	⑬	0.22	44	450	51
		145	⑭	0.26	50	290	44
		145	⑮	0.25	50	340	47

*rated data

Fan ordering information

Design	RH*
Installation position	H/Vu/Vo
Electrical connection	Cable box D02 with cable lateral 105cm

Type	**RH50V-8DK.4C.1R**
Article no.	**113269**
Weight [kg]	9.10

* Inlet ring not included

Control technology

Frequency inverter Fcontrol 3~

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Transformer-based controllers 3~

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Electronic voltage controllers 3~

Page 506

Vpro

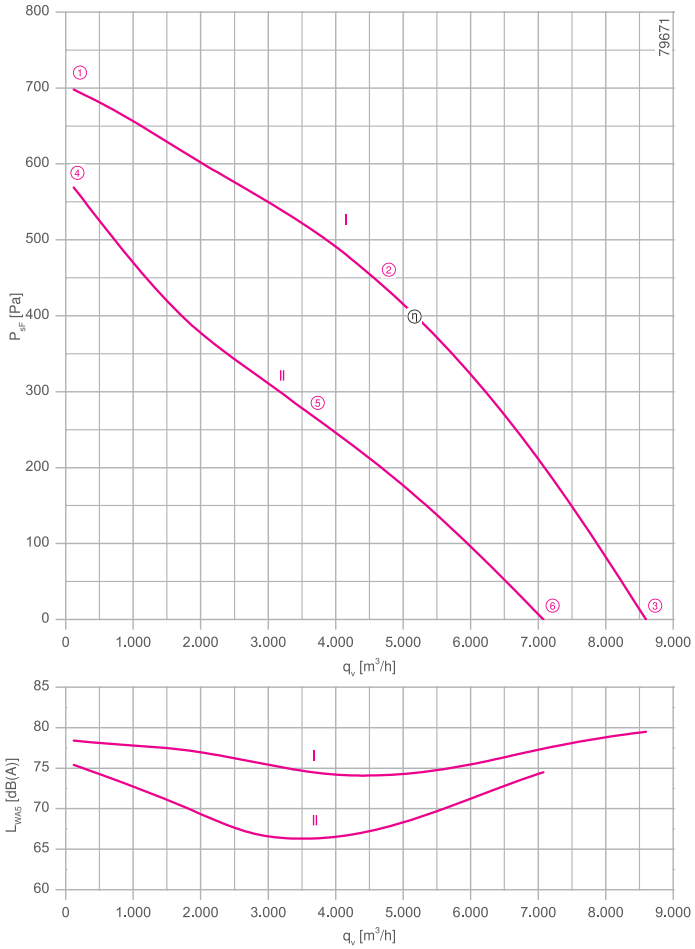
for three phase alternating current, 4-4 pole

RH50V-VD

Description

Motor technology: AC
Rated voltage U_N: **3~ 400 V (Δ/Y) ±10 %***
Rated frequency f_N: **50 Hz***
Motor input power P_1: **1,20/0,82 kW***
Rated current I_N: **2.10/1.40 A***
Rated speed n_N: **1330/1040 min^{-1}***
Starting current I_A: 9,50 A / 3.00 A
Current increase ΔI: 10 %
Dynamic pressure: $p_{d2} = 9.3 \cdot 10^{-7} \cdot q_V^2$ [Pa]
Thermal class: **THCL155***
Min. permitted ambient temperature $t_{R(min)}$: -15 °C
Max. permitted ambient temperature $t_{R(max)}$: 55 °C
Protection class: IP54
Motor protection: Thermal contact
Impeller : High Performance Composite Material, uncoated, black
Motor: 1 coat paint, pebble grey
Conformity: ErP 2013, CE
ErP-Daten
Efficiency η_{statA}: 48.5 %
Efficiency: $N_{actual} = 58.1$ / $N_{target} = 58$**
* Rated data
**ErP 2013

Characteristic curve



measured with inlet ring, without guard grille according to ISO 5801

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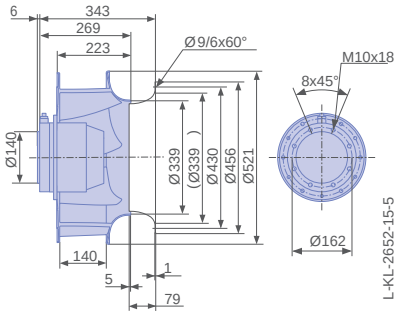
Dimensions [mm]

Free-running motor impeller RH
in installation position H/Vu/Vo



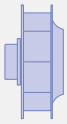
Performance data

Type	Connection	Characteristic curve	Voltage U [V]	Operating point	Current I [A]	Motor input power P_1 [W]	Speed n [min^{-1}]	Suction side sound power level L_{WA5} [dB]
RH50V-VDK.6F.1R	Δ	I	400	①	1.60	800	1400	78
			400*	②	**2.10***	**1200***	**1330***	74
			400	③	1.80	960	1370	80
	Y	II	400	④	0.80	480	1280	75
			400*	⑤	**1.40***	**820***	**1040***	66
			400	⑥	1.20	720	1140	75

*rated data

Fan ordering information

Design	RH*
Installation position	H/Vu/Vo
Electrical connection	Supply cable lateral 105cm



Type	**RH50V-VDK.6F.1R**
Article no.	**113289**
Weight [kg]	16.90

* Inlet ring not included

Control technology

Frequency inverter Fcontrol 3~

Page 484

Motor protection units 3~

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Transformer-based controllers 3~

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Electronic voltage controllers 3~

Page 506

Vpro

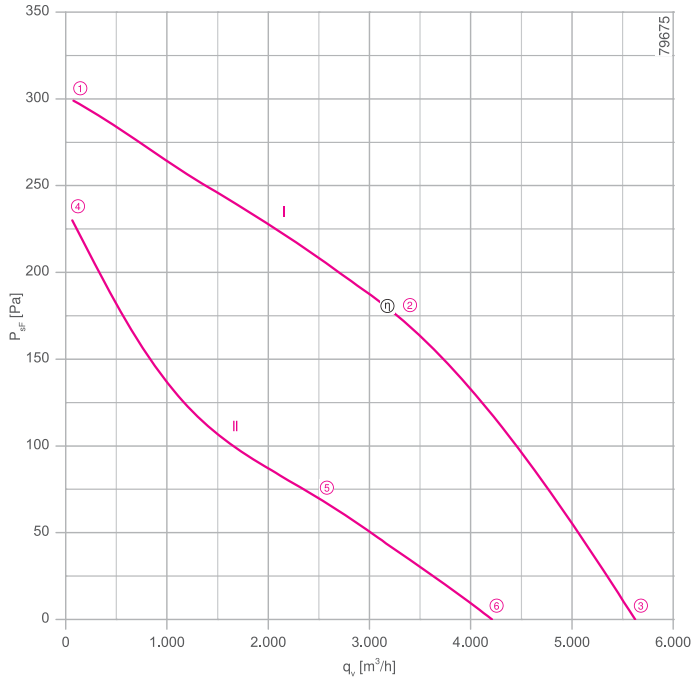
for three phase alternating current, 6-6 pole

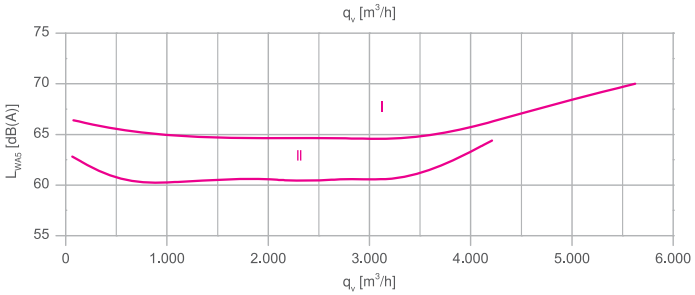
RH50V-SD

Description

Motor technology: AC
Rated voltage U_N: **3~ 400 V (Δ/Y) ±10 %***
Rated frequency f_N: **50 Hz***
Motor input power P_1: **0,42/0,23 kW***
Rated current I_N: **0,94/0,48 A***
Rated speed n_N: **870/ 590 min^{-1}***
Starting current I_A: 2.40 A / 0.70 A
Current increase ΔI: 0 %
Dynamic pressure: $p_{d2} = 9.3 \cdot 10^{-7} \cdot q_V^2$ [Pa]
Thermal class: **THCL155***
Min. permitted ambient temperature $t_{R(min)}$: -15 °C
Max. permitted ambient temperature $t_{R(max)}$: 55 °C
Protection class: IP54
Motor protection: Thermal contact
Impeller : High Performance Composite Material, uncoated, black
Motor: 1 coat paint, pebble grey
* Rated data

Characteristic curve





measured with inlet ring, without guard grille according to ISO 5801

Inlet ring	00275572	Page 450
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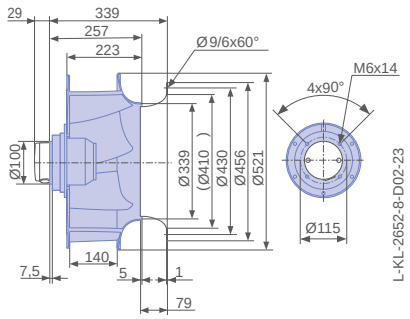
Dimensions [mm]

Free-running motor impeller RH
in installation position H/Vu/Vo



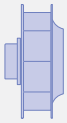
Performance data

Type	Connection	Characteristic curve	Voltage U [V]	Operating point	Current I [A]	Motor input power P_1 [W]	Speed n [min^{-1}]	Suction side sound power level L_{WA5} [dB]
RH50V-SDK.4F.1R	Δ	I	400	①	0.72	230	950	66
			400*	②	**0.94***	**420***	**870***	65
			400	③	0.82	330	900	70
	Y	II	400	④	0.32	160	830	63
			400*	⑤	**0.48***	**230***	**590***	60
			400	⑥	0.44	210	680	64

*rated data

Fan ordering information

Design	RH*
Installation position	H/Vu/Vo
Electrical connection	Cable box D02 with cable lateral 105cm



Type	**RH50V-SDK.4F.1R**
Article no.	**113284**
Weight [kg]	10.50

* Inlet ring not included

Control technology

Frequency inverter Fcontrol 3~

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Motor protection units 3~

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Transformer-based controllers 3~

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Electronic voltage controllers 3~

Page 506

V p r o

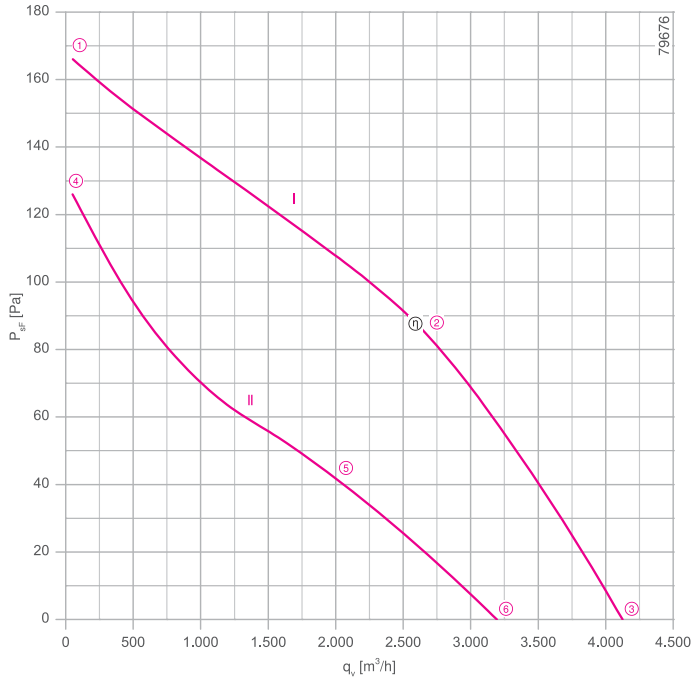
for three phase alternating current, 8-8 pole

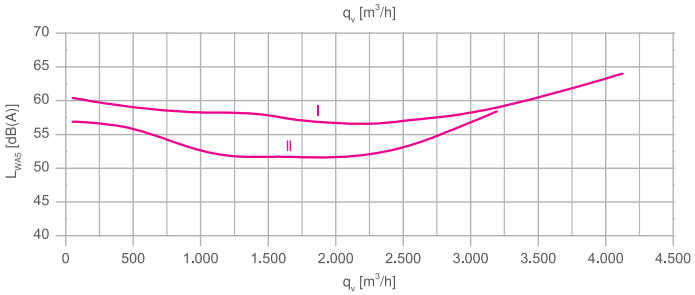
R H 5 0 V - A D

Description

Motor technology: AC
Rated voltage U_N: **3~ 400 V (Δ/Y) ±10 %***
Rated frequency f_N: **50 Hz***
Motor input power P_1: **0.18/0.11 kW***
Rated current I_N: **0.39/0.20 A***
Rated speed n_N: **640/ 460 min^{-1}***
Starting current I_A: 0.85 A / 0.26 A
Current increase ΔI: 0 %
Dynamic pressure: $p_{d2} = 9.3 \cdot 10^{-7} \cdot q_V^2$ [Pa]
Thermal class: **THCL155***
Min. permitted ambient temperature $t_{R(min)}$: -15 °C
Max. permitted ambient temperature $t_{R(max)}$: 60 °C
Protection class: IP54
Motor protection: Thermal contact
Impeller : High Performance Composite Material, uncoated, black
Motor: 1 coat paint, pebble grey
* Rated data

Characteristic curve





measured with inlet ring, without guard grille according to ISO 5801

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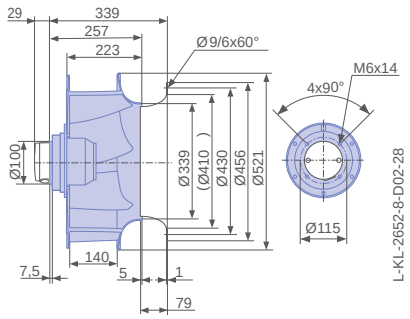
Dimensions [mm]

Free-running motor impeller RH
in installation position H/Vu/Vo



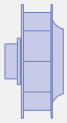
Performance data

Type	Connection	Characteristic curve	Voltage U [V]	Operating point	Current I [A]	Motor input power P_1 [W]	Speed n [min^{-1}]	Suction side sound power level L_{WA5} [dB]
RH50V-ADK.4C.1R	Y	I	400	①	0.33	110	700	60
			400*	②	**0.39***	**180***	**640***	57
			400	③	0.36	150	670	64
	Δ	II	400	④	0.14	70	610	57
			400*	⑤	**0.19***	**110***	**460***	51
			400	⑥	0.17	95	520	58

*rated data

Fan ordering information

Design	RH*
Installation position	H/Vu/Vo
Electrical connection	Cable box D02 with cable lateral 105cm



Type	**RH50V-ADK.4C.1R**
Article no.	**113286**
Weight [kg]	9.10

* Inlet ring not included

Control technology

Frequency inverter Fcontrol 3~

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Motor protection units 3~

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Electronic voltage controllers 3~

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Vpro

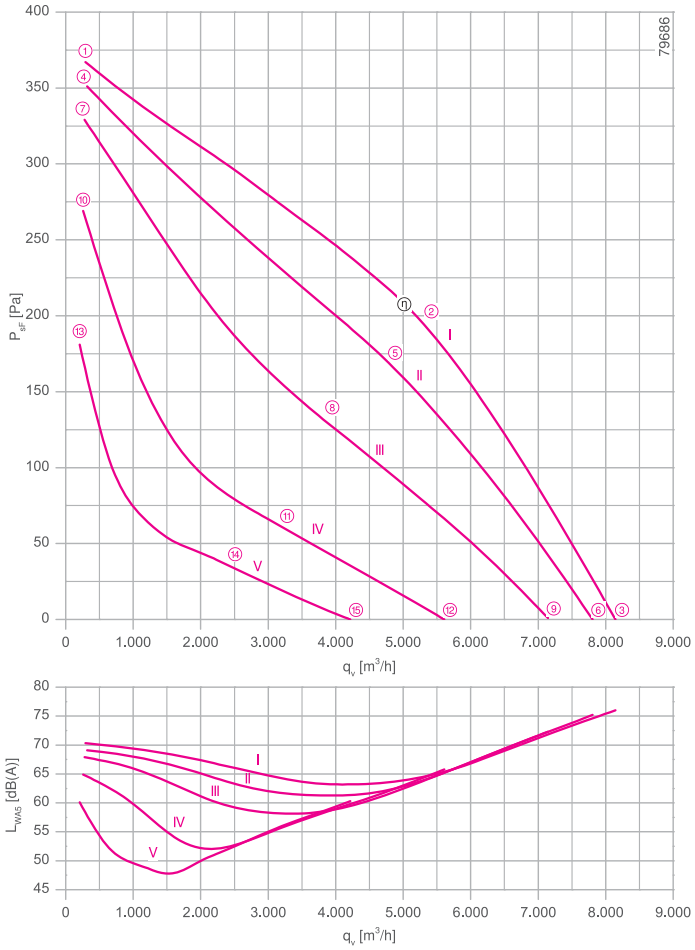
for single phase alternating current, 6 pole

RH56V-6E

Description

Motor technology: AC
Rated voltage U_N: **1~ 230 V±10 %***
Rated frequency f_N: **50 Hz***
Motor input power P_1: **0.66 kW***
Rated current I_N: **3.00 A***
Rated speed n_N: **860 min^{-1}***
Current increase ΔI: 0 %
Service capacitor C_{400V}: 14.0 µF
Dynamic pressure: $p_{d2} = 5.7 \cdot 10^{-7} \cdot q_V^2$ [Pa]
Thermal class: **THCL155***
Min. permitted ambient temperature $t_{R(min)}$: -15 °C
Max. permitted ambient temperature $t_{R(max)}$: 60 °C
Protection class: IP54
Motor protection: Thermal contact
Impeller : High Performance Composite Material, uncoated, black
Motor: 1 coat paint, pebble grey
Conformity: ErP 2013, CE
ErP-Daten
Efficiency η_{statA}: 45.6 %
Efficiency: $N_{actual} = 58.0$ / $N_{target} = 58$**
* Rated data
**ErP 2013

Characteristic curve

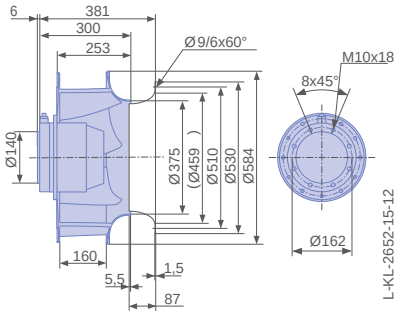


measured with inlet ring, without guard grille according to ISO 5801

Inlet ring	00278489	Page 450
Connection diagram	1360-104XA SW	Page 549
System components		Page 448

Dimensions [mm]

Free-running motor impeller RH
in installation position H/Vu/Vo



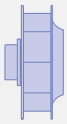
Performance data

Type	Characteristic curve	Voltage U [V]	Operating point	Current I [A]	Motor input power P_1 [W]	Speed n [min^{-1}]	Suction side sound power level L_{WA5} [dB]
RH56V-6EK.6F.1R	I	230	①	1.90	400	940	70
		230*	②	**3.00***	**660***	**860***	64
		230	③	2.40	540	910	76
	II	200	④	1.85	360	930	69
		200	⑤	3.10	580	790	62
		200	⑥	2.50	480	870	75
	III	170	⑦	1.85	310	900	68
		170	⑧	3.10	480	680	59
		170	⑨	2.60	420	800	72
	IV	135	⑩	1.95	260	810	65
		135	⑪	2.70	330	500	54
		135	⑫	2.50	320	630	66
	V	110	⑬	2.00	210	670	60
		110	⑭	2.30	220	390	52
		110	⑮	2.30	220	480	60

*rated data

Fan ordering information

Design	RH*
Installation position	H/Vu/Vo
Electrical connection	Supply cable lateral 105cm



Type	**RH56V-6EK.6F.1R**
Article no.	**113313**
Weight [kg]	18.70

* Inlet ring not included

Control technology

Frequency inverter Fcontrol 1~

Page 478

Motor protection units 1~

Page 526

Transformer-based controllers 1~

Page 517

Electronic voltage controllers 1~

Page 492

Vpro

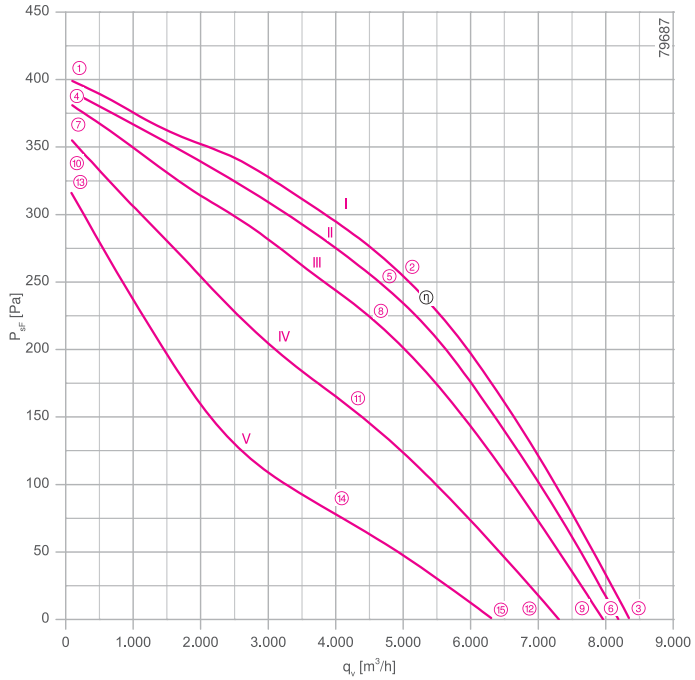
for single phase alternating current, 6 pole

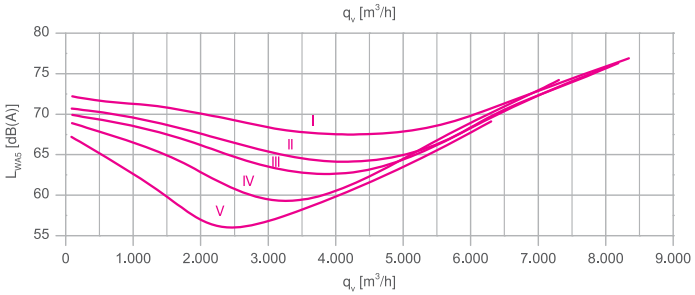
RH56V-6E

Description

Motor technology: AC
Rated voltage U_N: **1~ 230 V±10 %***
Rated frequency f_N: **50 Hz*** (60Hz data available)
Motor input power P_1: **0.84 kW***
Rated current I_N: **4.40 A***
Rated speed n_N: **920 min^{-1}***
Current increase ΔI: 10 %
Service capacitor C_{400V}: 20.0 µF
Thermal class: **THCL155***
Min. permitted ambient temperature $t_{R(min)}$: -15 °C
Max. permitted ambient temperature $t_{R(max)}$: 55°C
Protection class: IP54
Motor protection: Thermal contact
Impeller : High Performance Composite Material, uncoated, black
Motor: 1 coat paint, pebble grey
* Rated data

Characteristic curve





measured with inlet ring, without guard grille according to ISO 5801

Inlet ring	00278489	Page 450
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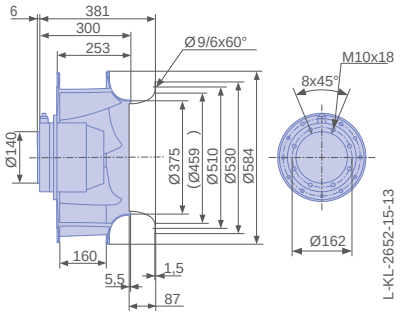
Dimensions [mm]

Free-running motor impeller RH
in installation position H/Vu/Vo



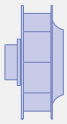
Performance data

Type	Characteristic curve	Voltage U [V]	Operating point	Current I [A]	Motor input power P_1 [W]	Speed n [min^{-1}]	Suction side sound power level L_{WA5} [dB]
RH56V-6EK.6K.1R	I	230	①	3.60	520	970	72
		230*	②	**4.40***	**840***	**920***	68
		230	③	4.00	680	940	77
	II	200	④	3.00	420	960	71
		200	⑤	4.20	740	890	64
		200	⑥	3.50	600	930	76
	III	170	⑦	2.60	360	950	70
		170	⑧	4.40	680	850	63
		170	⑨	3.50	540	900	76
	IV	135	⑩	2.60	300	910	69
		135	⑪	4.80	580	740	61
		135	⑫	3.80	460	830	74
	V	110	⑬	2.70	270	860	67
		110	⑭	4.80	460	590	59
		110	⑮	4.00	400	720	69

*rated data

Fan ordering information

Design	RH*
Installation position	H/Vu/Vo
Electrical connection	Supply cable lateral 105cm



Type	**RH56V-6EK.6K.1R**
Article no.	**113382**
Weight [kg]	22.50

* Inlet ring not included

Control technology

Frequency inverter Fcontrol 1~

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Motor protection units 1~

Page 526

Transformer-based controllers 1~

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Electronic voltage controllers 1~

Page 492

Vpro

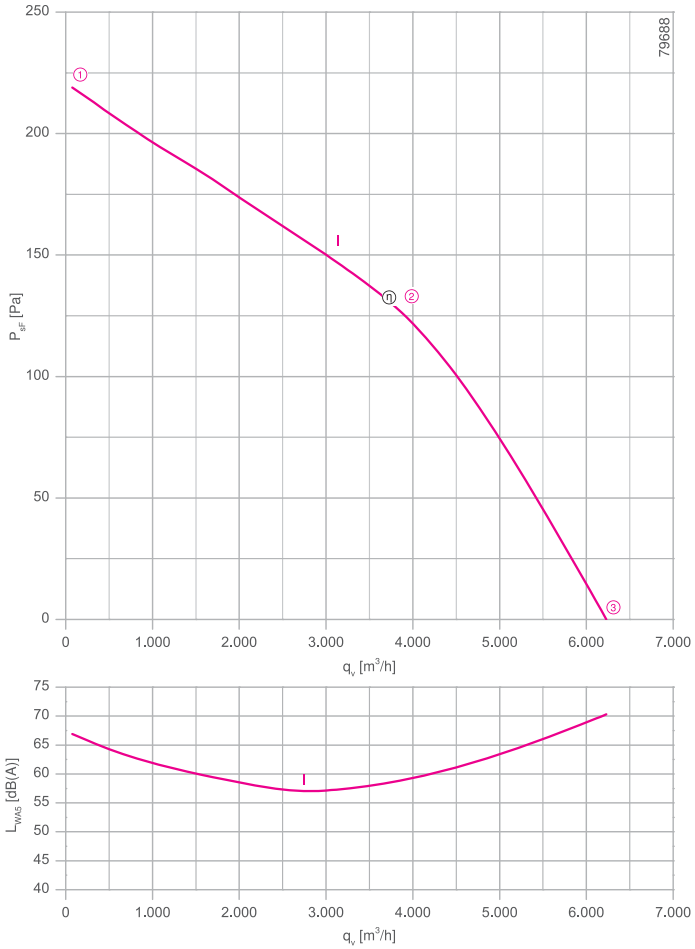
for single phase alternating current, 8 pole

RH56V-8E

Description

Motor technology: AC
Rated voltage U_N: **1~ 230 V±10 %***
Rated frequency f_N: **50 Hz***
Motor input power P_1: **0.35 kW***
Rated current I_N: **1.65 A***
Rated speed n_N: **670 min^{-1}***
Service capacitor C_{400V}: 8.0 μF
Dynamic pressure: $p_{d2} = 5.7 \cdot 10^{-7} \cdot q_v^2$ [Pa]
Thermal class: **THCL155***
Min. permitted ambient temperature $t_{R(min)}$: -15 °C
Max. permitted ambient temperature $t_{R(max)}$: 60 °C
Protection class: IP54
Motor protection: Thermal contact
Impeller : High Performance Composite Material, uncoated, black
Motor: 1 coat paint, pebble grey
* Rated data

Characteristic curve



measured with inlet ring, without guard grille according to ISO 5801
not voltage controllable

Inlet ring	00278489	Page 450
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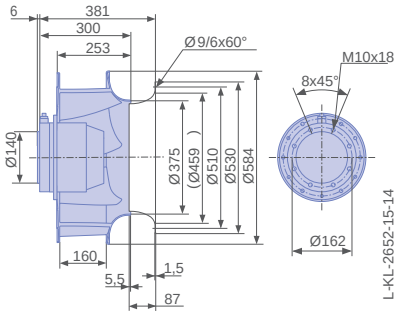
Dimensions [mm]

Free-running motor impeller RH
in installation position H/Vu/Vo



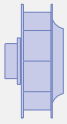
Performance data

Type	Characteristic curve	Voltage U [V]	Operating point	Current I [A]	Motor input power P_1 [W]	Speed n [min^{-1}]	Suction side sound power level L_{WA5} [dB]
RH56V-8EK.6C.1R	I	230	①	1.20	230	720	67
		230*	②	**1.65***	**350***	**670***	59
		230	③	1.40	290	690	70

*rated data

Fan ordering information

Design	RH*
Installation position	H/Vu/Vo
Electrical connection	Supply cable lateral 105cm



Type	**RH56V-8EK.6C.1R**
Article no.	**113314**
Weight [kg]	16.30

* Inlet ring not included

Control technology

Frequency inverter Fcontrol 1~

Page 478

Motor protection units 1~

Page 526

Transformer-based controllers 1~

Page 517

Electronic voltage controllers 1~

Page 492

V p r o

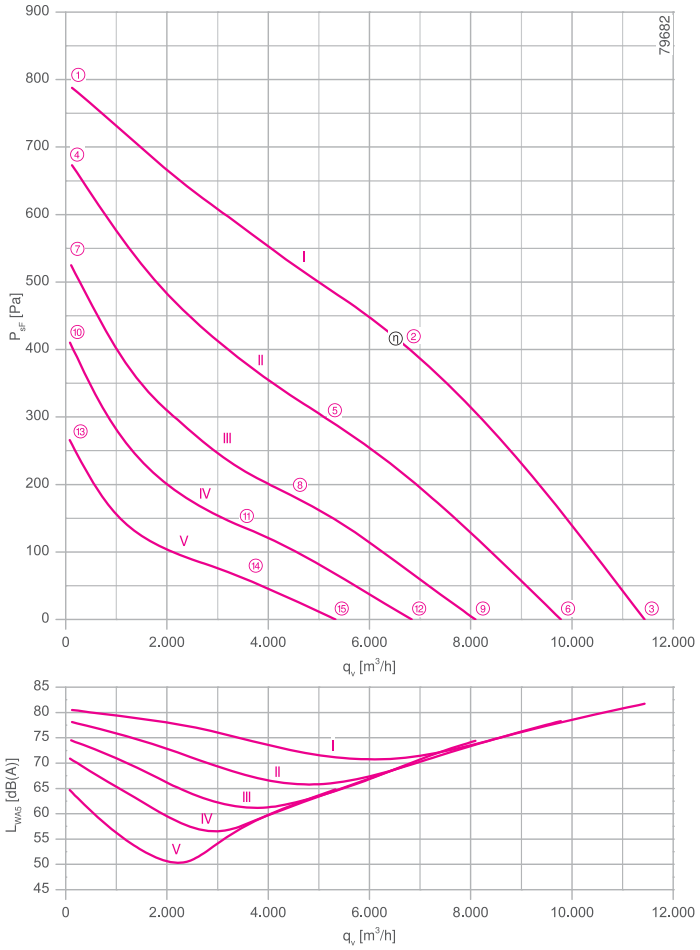
for three phase alternating current, 4 pole

R H 5 6 V - 4 D

Description

Motor technology: AC
Rated voltage U_N: **3~ 230/400 V (Δ/Y) ±10 %***
Rated frequency f_N: **50 Hz***
Motor input power P_1: **1.70 kW***
Rated current I_N: **5.60/3.20 A***
Rated speed n_N: **1180 min^{-1}***
Starting current I_A: 16.00 A / 9,50 A
Dynamic pressure: $p_{d2} = 5.7 \cdot 10^{-7} \cdot q_V^2$ [Pa]
Thermal class: **THCL155***
Min. permitted ambient temperature $t_{R(min)}$: -15 °C
Max. permitted ambient temperature $t_{R(max)}$: 50 °C
Protection class: IP54
Motor protection: Thermal contact
Impeller : High Performance Composite Material, uncoated, black
Motor: 1 coat paint, pebble grey
* Rated data

Characteristic curve



measured with inlet ring, without guard grille according to ISO 5801

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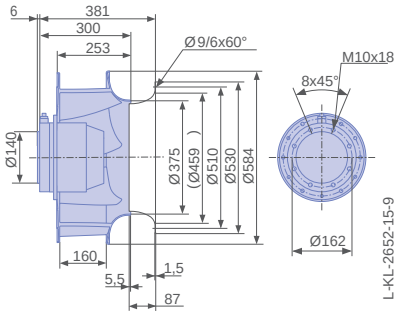
Dimensions [mm]

Free-running motor impeller RH
in installation position H/Vu/Vo



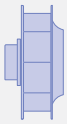
Performance data

Type	Characteristic curve	Voltage U [V]	Operating point	Current I [A]	Motor input power P_1 [W]	Speed n [min^{-1}]	Suction side sound power level L_{WA5} [dB]
RH56V-4DK.6K.1R	I	400	①	1.95	880	1370	81
		400*	②	**3.30***	**1700***	**1180***	71
		400	③	2.80	1400	1270	82
	II	300	④	2.00	760	1270	78
		300	⑤	3.20	1250	1000	66
		300	⑥	2.80	1100	1110	78
	III	230	⑦	1.95	600	1120	75
		230	⑧	2.80	820	800	63
		230	⑨	2.50	760	910	74
	IV	190	⑩	1.90	480	990	71
		190	⑪	2.40	580	670	59
		190	⑫	2.30	560	770	70
	V	145	⑬	1.70	320	800	65
		145	⑭	2.00	360	520	54
		145	⑮	1.90	350	610	65

*rated data

Fan ordering information

Design	RH*
Installation position	H/Vu/Vo
Electrical connection	Supply cable lateral 105cm



Type	**RH56V-4DK.6K.1R**
Article no.	**113270**
Weight [kg]	22.50

* Inlet ring not included

Control technology

Frequency inverter Fcontrol 3~

Page 484

Motor protection units 3~

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Transformer-based controllers 3~

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Electronic voltage controllers 3~

Page 506

V p r o

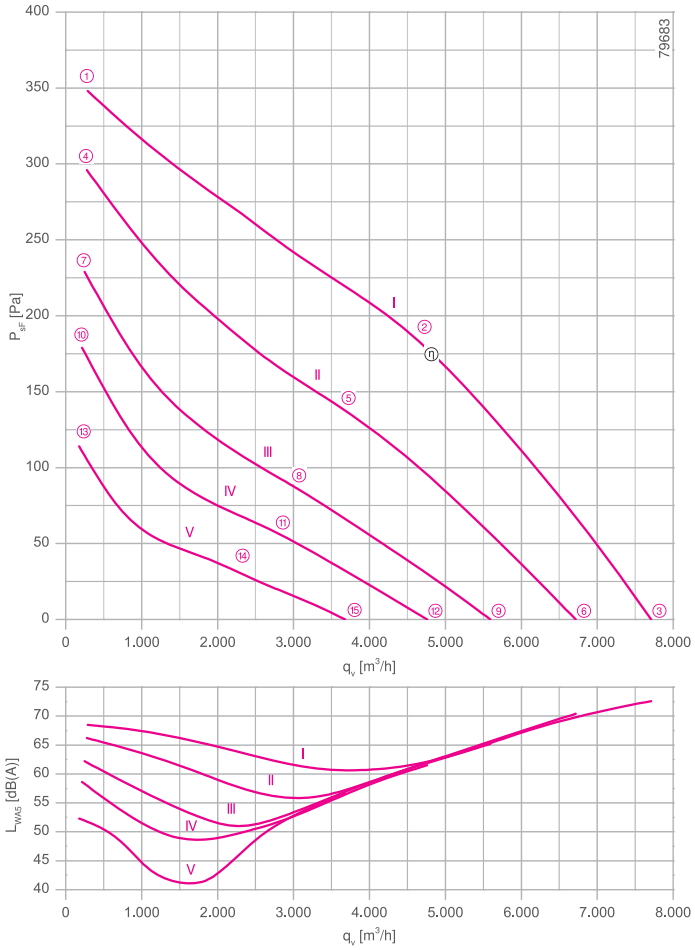
for three phase alternating current, 6 pole

R H 5 6 V - 6 D

Description

Motor technology: AC
Rated voltage U_N: **3~ 230/400 V (Δ/Y) ±10 %***
Rated frequency f_N: **50 Hz***
Motor input power P_1: **0.60 kW***
Rated current I_N: **1.80/1.05 A***
Rated speed n_N: **800 min^{-1}***
Starting current I_A: 4.0 A / 2.80 A
Current increase ΔI: 0 %
Dynamic pressure: $p_{d2} = 5.7 \cdot 10^{-7} \cdot q_V^2$ [Pa]
Thermal class: **THCL155***
Min. permitted ambient temperature $t_{R(min)}$: -15 °C
Max. permitted ambient temperature $t_{R(max)}$: 40 °C
Protection class: IP54
Motor protection: Thermal contact
Impeller : High Performance Composite Material, uncoated, black
Motor: 1 coat paint, pebble grey
* Rated data

Characteristic curve



measured with inlet ring, without guard grille according to ISO 5801

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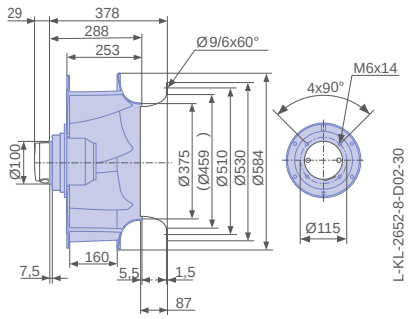
Dimensions [mm]

Free-running motor impeller RH
in installation position H/Vu/Vo



Performance data

Type	Characteristic curve	Voltage U [V]	Operating point	Current I [A]	Motor input power P_1 [W]	Speed n [min^{-1}]	Suction side sound power level L_{WA5} [dB]
RH56V-6DK.4F.1R	I	400	①	0.76	340	910	69
		400*	②	**1.05***	**600***	**800***	61
		400	③	0.92	480	860	73
	II	300	④	0.68	290	840	66
		300	⑤	1.00	460	680	59
		300	⑥	0.88	390	750	70
	III	230	⑦	0.68	240	740	62
		230	⑧	0.94	330	550	56
		230	⑨	0.84	300	630	65
	IV	190	⑩	0.68	200	650	59
		190	⑪	0.86	250	460	52
		190	⑫	0.80	230	540	62
	V	145	⑬	0.62	140	520	52
		145	⑭	0.72	160	360	42
		145	⑮	0.68	150	420	57

*rated data

Fan ordering information

Design	RH*
Installation position	H/Vu/Vo
Electrical connection	Cable box D02 with cable lateral 105cm

Type	**RH56V-6DK.4F.1R**
Article no.	**113271**
Weight [kg]	12.20

* Inlet ring not included

Control technology

Frequency inverter Fcontrol 3~

Page 484

Motor protection units 3~

Page 526

Transformer-based controllers 3~

Page 521

Electronic voltage controllers 3~

Page 506

V p r o

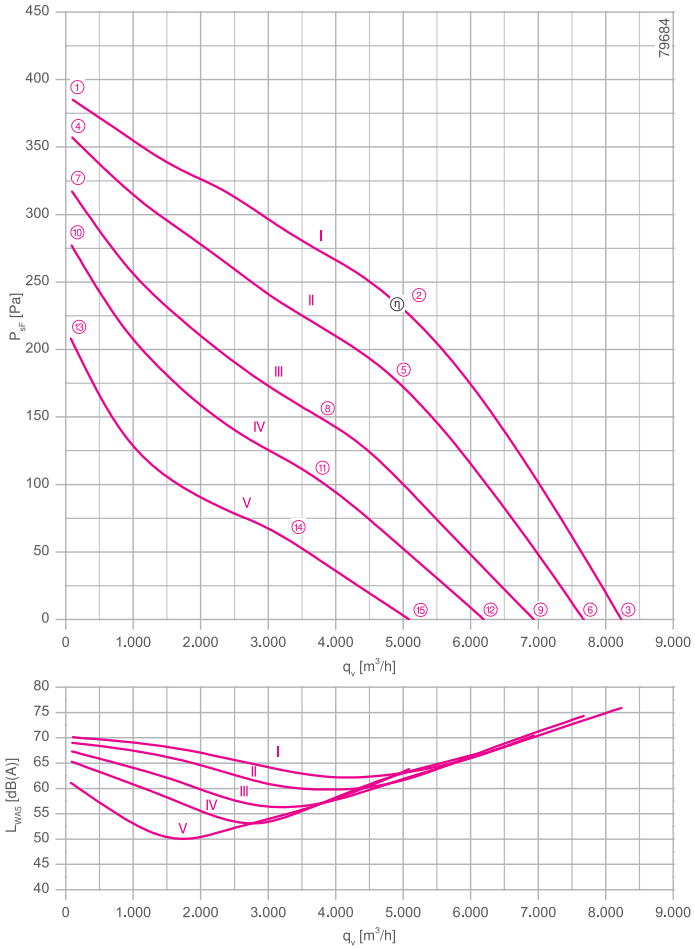
for three phase alternating current, 6 pole

R H 5 6 V - 6 D

Description

Motor technology: AC
Rated voltage U_N: **3~ 230/400 V (Δ/Y) ±10 %***
Rated frequency f_N: **50 Hz*** (60Hz data available)
Motor input power P_1: **0.66 kW***
Rated current I_N: **2.40/1.40 A***
Rated speed n_N: **880 min^{-1}***
Starting current I_A: 8.50 A / 5.00 A
Current increase ΔI: 0 %
Dynamic pressure: $p_{d2} = 5.7 \cdot 10^{-7} \cdot q_V^2$ [Pa]
Thermal class: **THCL155***
Min. permitted ambient temperature $t_{R(min)}$: -15 °C
Max. permitted ambient temperature $t_{R(max)}$: 60 °C
Protection class: IP54
Motor protection: Thermal contact
Impeller : High Performance Composite Material, uncoated, black
Motor: 1 coat paint, pebble grey
Conformity: ErP 2015, CE
ErP-Daten
Efficiency η_{statA}: 49.9 %
Efficiency: $N_{actual} = 62.3$ / $N_{target} = 62$**
* Rated data
**ErP 2015

Characteristic curve



measured with inlet ring, without guard grille according to ISO 5801

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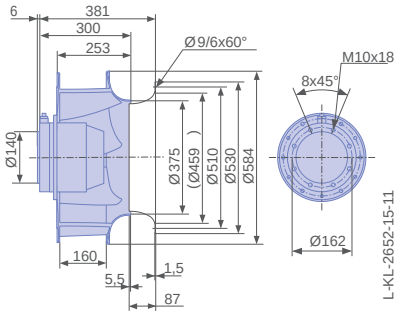
Dimensions [mm]

Free-running motor impeller RH
in installation position H/Vu/Vo



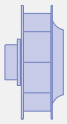
Performance data

Type	Characteristic curve	Voltage U [V]	Operating point	Current I [A]	Motor input power P_1 [W]	Speed n [min^{-1}]	Suction side sound power level L_{WA5} [dB]
RH56V-6DK.6F.1R	I	400	①	1.10	330	950	70
		400*	②	**1.40***	**660***	**880***	63
		400	③	1.25	500	920	76
	II	300	④	0.88	280	920	69
		300	⑤	1.35	540	810	61
		300	⑥	1.15	440	860	74
	III	230	⑦	0.84	240	860	67
		230	⑧	1.30	420	700	57
		230	⑨	1.10	360	770	70
	IV	190	⑩	0.84	220	810	65
		190	⑪	1.30	340	620	56
		190	⑫	1.10	300	690	67
	V	145	⑬	0.84	170	700	61
		145	⑭	1.15	230	500	54
		145	⑮	1.05	210	570	64

*rated data

Fan ordering information

Design	RH*
Installation position	H/Vu/Vo
Electrical connection	Supply cable lateral 105cm



Type	**RH56V-6DK.6F.1R**
Article no.	**113446**
Weight [kg]	18.70

* Inlet ring not included

Control technology

Frequency inverter Fcontrol 3~

Page 484

Motor protection units 3~

Page 526

Transformer-based controllers 3~

Page 521

Electronic voltage controllers 3~

Page 506

Vpro

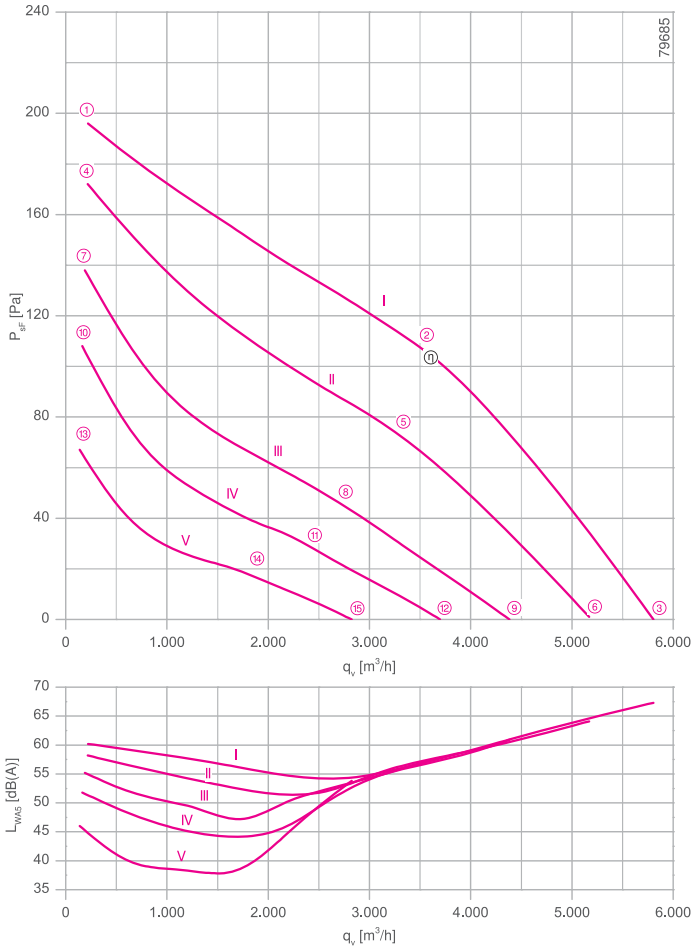
for three phase alternating current, 8 pole

RH56V-8D

Description

Motor technology: AC
Rated voltage U_N: **3~ 230/400 V (Δ/Y) ±10 %***
Rated frequency f_N: **50 Hz***
Motor input power P_1: **0.29 kW***
Rated current I_N: **1,05/0,62 A***
Rated speed n_N: **610 min^{-1}***
Starting current I_A: 2.40 A / 1.40 A
Current increase ΔI: 0 %
Dynamic pressure: $p_{d2} = 5.7 \cdot 10^{-7} \cdot q_V^2$ [Pa]
Thermal class: **THCL155***
Min. permitted ambient temperature $t_{R(min)}$: -15 °C
Max. permitted ambient temperature $t_{R(max)}$: 60 °C
Protection class: IP54
Motor protection: Thermal contact
Impeller : High Performance Composite Material, uncoated, black
Motor: 1 coat paint, pebble grey
* Rated data

Characteristic curve



measured with inlet ring, without guard grille according to ISO 5801

Inlet ring	00278489	Page 450
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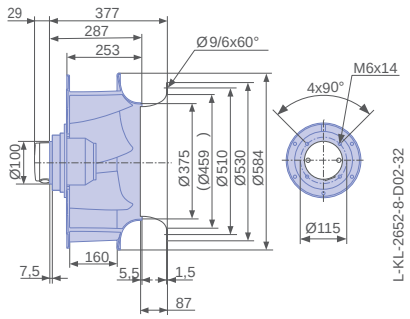
Dimensions [mm]

Free-running motor impeller RH
in installation position H/Vu/Vo



Performance data

Type	Characteristic curve	Voltage U [V]	Operating point	Current I [A]	Motor input power P_1 [W]	Speed n [min^{-1}]	Suction side sound power level L_{WA5} [dB]
RH56V-8DK.4F.1R	I	400	①	0.50	180	680	60
		400*	②	**0.62***	**290***	**610***	56
		400	③	0.56	240	650	67
	II	300	④	0.42	140	640	58
		300	⑤	0.58	220	530	55
		300	⑥	0.50	190	580	64
	III	230	⑦	0.39	110	580	55
		230	⑧	0.52	160	430	52
		230	⑨	0.46	140	490	61
	IV	190	⑩	0.37	95	510	52
		190	⑪	0.46	120	360	46
		190	⑫	0.44	110	420	58
	V	145	⑬	0.34	65	400	46
		145	⑭	0.39	75	270	38
		145	⑮	0.37	70	320	54

*rated data

J

Fan ordering information

Design	RH*
Installation position	H/Vo
Electrical connection	Cable box D02 with cable lateral 105cm

Type	**RH56V-8DK.4F.1R**
Article no.	**113272**
Weight [kg]	12.20

* Inlet ring not included

Control technology

Frequency inverter Fcontrol 3~

Page 484

Motor protection units 3~

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Transformer-based controllers 3~

Page 521

Electronic voltage controllers 3~

Page 506

V p r o

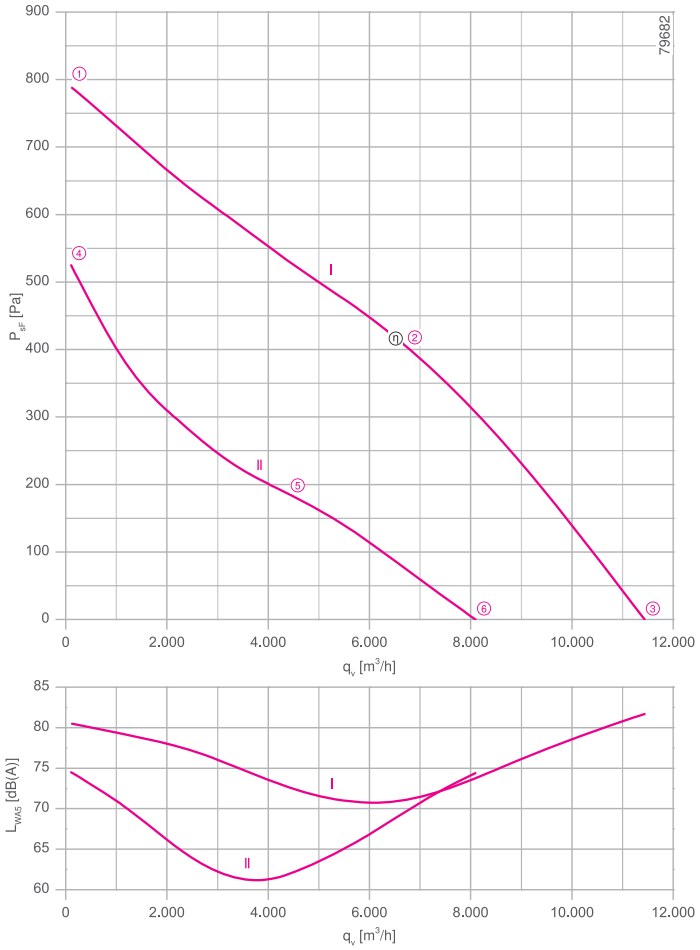
for three phase alternating current, 4-4 pole

R H 5 6 V-V D

Description

Motor technology: AC
Rated voltage U_N: **3~ 400 V (Δ/Y) ±10 %***
Rated frequency f_N: **50 Hz***
Motor input power P_1: **1.70/0.82 kW***
Rated current I_N: **3.30/1.60 A***
Rated speed n_N: **1180/ 800 min^{-1}***
Starting current I_A: 9.00 A / 2.80 A
Current increase ΔI: 0 %
Dynamic pressure: $p_{d2} = 5.7 \cdot 10^{-7} \cdot q_V^2$ [Pa]
Thermal class: **THCL155***
Min. permitted ambient temperature $t_{R(min)}$: -15 °C
Max. permitted ambient temperature $t_{R(max)}$: 50 °C
Protection class: IP54
Motor protection: Thermal contact
Impeller : High Performance Composite Material, uncoated, black
Motor: 1 coat paint, pebble grey
* Rated data

Characteristic curve



measured with inlet ring, without guard grille according to ISO 5801

Inlet ring	00278489	Page 450
Connection diagram	1360-108XA SW	Page 549
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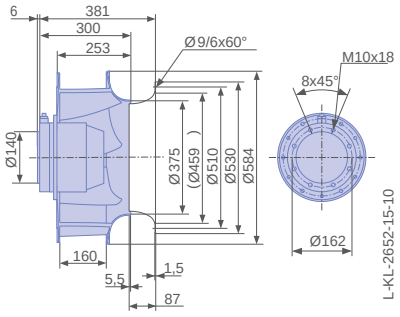
Dimensions [mm]

Free-running motor impeller RH
in installation position H/Vu/Vo



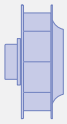
Performance data

Type	Connection	Characteristic curve	Voltage U [V]	Operating point	Current I [A]	Motor input power P_1 [W]	Speed n [min^{-1}]	Suction side sound power level L_{WA5} [dB]
RH56V-VDK.6K.1R	Δ	I	400	①	1.95	880	1370	81
			400*	②	**3.30***	**1700***	**1180***	71
			400	③	2.80	1400	1270	82
	Y	II	400	④	1.15	600	1120	75
			400*	⑤	**1.60***	**820***	**800***	63
			400	⑥	1.45	760	910	74

*rated data

Fan ordering information

Design	RH*
Installation position	H/Vu/Vo
Electrical connection	Supply cable lateral 105cm



Type	**RH56V-VDK.6K.1R**
Article no.	**113291**
Weight [kg]	22.50

* Inlet ring not included

Control technology

Frequency inverter Fcontrol 3~

Page 484

Motor protection units 3~

Page 526

Transformer-based controllers 3~

Page 521

Electronic voltage controllers 3~

Page 506

Vpro

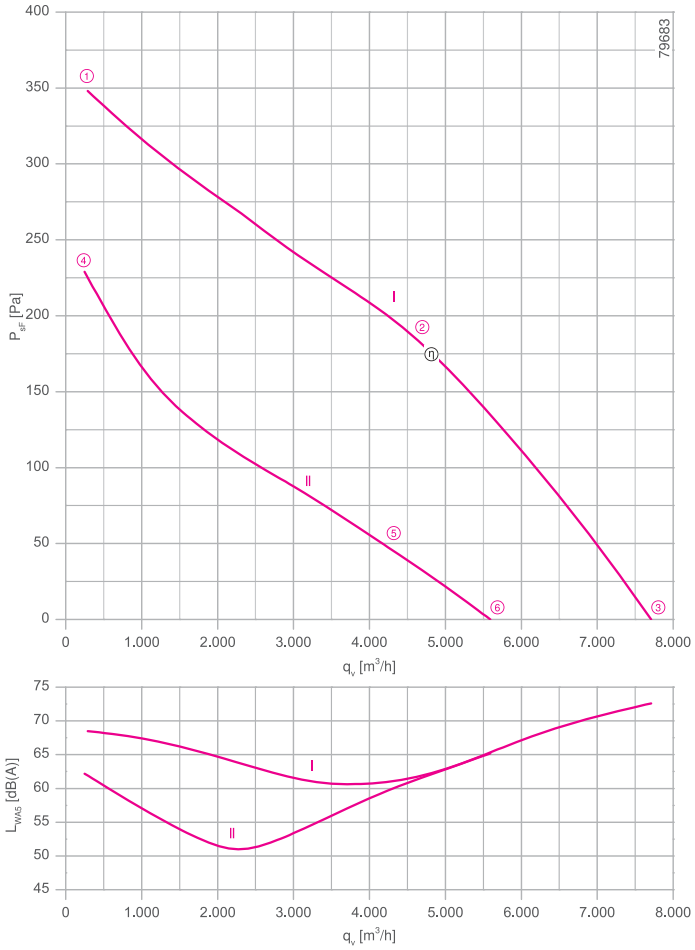
for three phase alternating current, 6-6 pole

RH56V-SD

Description

Motor technology: AC
Rated voltage U_N: **3~ 400 V (Δ/Y) ±10 %***
Rated frequency f_N: **50 Hz***
Motor input power P_1: **0,60/0,33 kW***
Rated current I_N: **1,05/0,54 A***
Rated speed n_N: **800/ 550 min^{-1}***
Current increase ΔI: 0 %
Dynamic pressure: $p_{d2} = 5.7 \cdot 10^{-7} \cdot q_V^2$ [Pa]
Thermal class: **THCL155***
Min. permitted ambient temperature $t_{R(min)}$: -15 °C
Max. permitted ambient temperature $t_{R(max)}$: 40 °C
Protection class: IP54
Motor protection: Thermal contact
Impeller : High Performance Composite Material, uncoated, black
Motor: 1 coat paint, pebble grey
* Rated data

Characteristic curve



measured with inlet ring, without guard grille according to ISO 5801

Inlet ring	00278489	Page 450
Connection diagram	1360-108XA SW	Page 549
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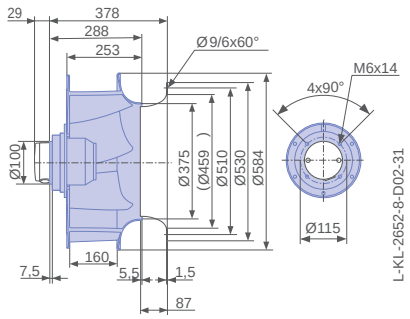
Dimensions [mm]

Free-running motor impeller RH
in installation position H/Vu/Vo



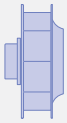
Performance data

Type	Connection	Characteristic curve	Voltage U [V]	Operating point	Current I [A]	Motor input power P_1 [W]	Speed n [min^{-1}]	Suction side sound power level L_{WA5} [dB]
RH56V-SDK.4F.1R	Δ	I	400	①	0.76	340	910	69
			400*	②	**1.05***	**600***	**800***	61
			400	③	0.92	480	860	73
	Y	II	400	④	0.39	240	740	62
			400*	⑤	**0.54***	**330***	**550***	56
			400	⑥	0.50	300	630	65

*rated data

Fan ordering information

Design	RH*
Installation position	H/Vu/Vo
Electrical connection	Cable box D02 with cable lateral 105cm



Type	**RH56V-SDK.4F.1R**
Article no.	**113287**
Weight [kg]	12.20

* Inlet ring not included

Control technology

Frequency inverter Fcontrol 3~

Page 484

Motor protection units 3~

Page 526

Transformer-based controllers 3~

Page 521

Electronic voltage controllers 3~

Page 506

Vpro

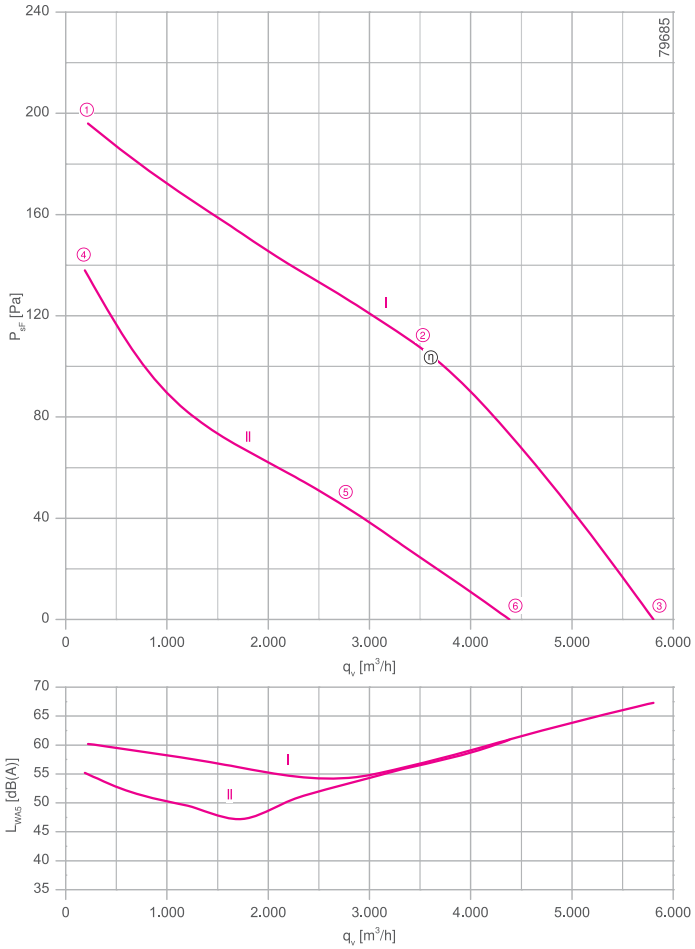
for three phase alternating current, 8-8 pole

RH56V-AD

Description

Motor technology: AC
Rated voltage U_N: **3~ 400 V (Δ/Y) ±10 %***
Rated frequency f_N: **50 Hz***
Motor input power P_1: **0,29/0,16 kW***
Rated current I_N: **0,62/0,30 A***
Rated speed n_N: **610/ 430 min^{-1}***
Starting current I_A: 1.30 A / 0.42 A
Current increase ΔI: 0 %
Dynamic pressure: $p_{d2} = 5.7 \cdot 10^{-7} \cdot q_V^2$ [Pa]
Thermal class: **THCL155***
Min. permitted ambient temperature $t_{R(min)}$: -15 °C
Max. permitted ambient temperature $t_{R(max)}$: 60 °C
Protection class: IP54
Motor protection: Thermal contact
Impeller : High Performance Composite Material, uncoated, black
Motor: 1 coat paint, pebble grey
* Rated data

Characteristic curve



measured with inlet ring, without guard grille according to ISO 5801

Inlet ring	00278489	Page 450
Connection diagram	1360-108XA SW	Page 549
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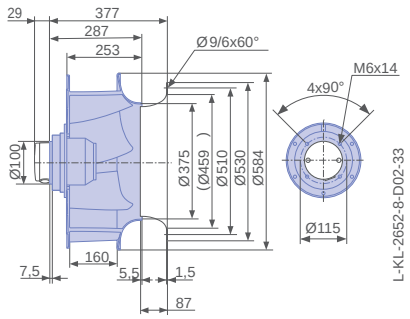
Dimensions [mm]

Free-running motor impeller RH
in installation position H/Vu/Vo



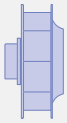
Performance data

Type	Connection	Characteristic curve	Voltage U [V]	Operating point	Current I [A]	Motor input power P_1 [W]	Speed n [min^{-1}]	Suction side sound power level L_{WA5} [dB]
RH56V-ADK.4F.1R	Δ	I	400	①	0.50	180	680	60
			400*	②	**0.62***	**290***	**610***	56
			400	③	0.56	240	650	67
	Y	II	400	④	0.23	110	580	55
			400*	⑤	**0.30***	**160***	**430***	52
			400	⑥	0.27	140	490	61

*rated data

Fan ordering information

Design	RH*
Installation position	H/Vo
Electrical connection	Cable box D02 with cable lateral 105cm



Type	**RH56V-ADK.4F.1R**
Article no.	**113288**
Weight [kg]	12.20

* Inlet ring not included

Control technology

Frequency inverter Fcontrol 3~

Page 484

Motor protection units 3~

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Transformer-based controllers 3~

Page 521

Electronic voltage controllers 3~

Page 506

Vpro

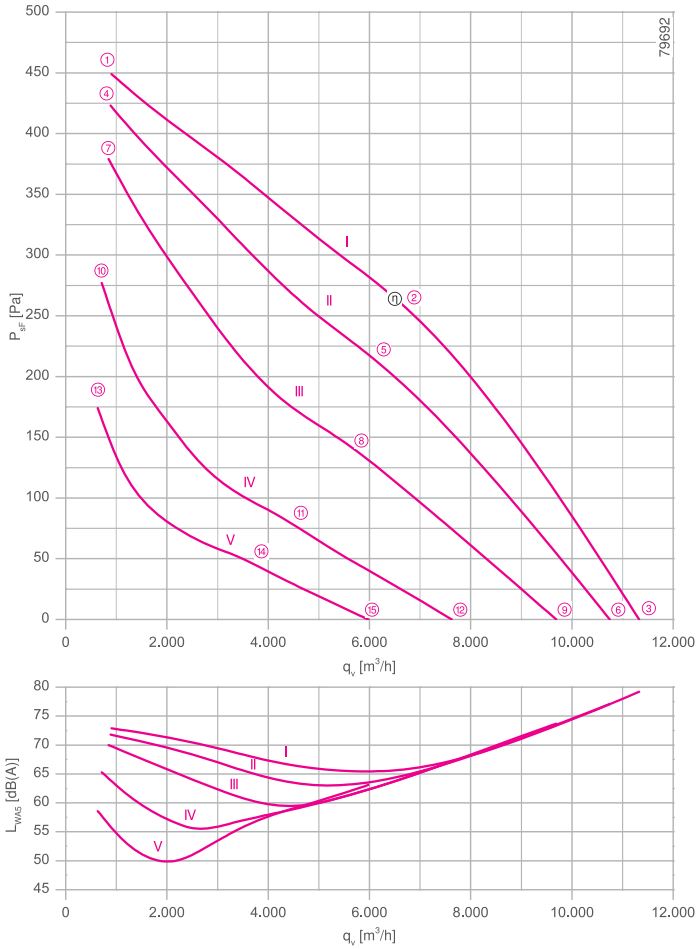
for single phase alternating current, 6 pole

RH63V-6E

Description

Motor technology: AC
Rated voltage U_N: **1~ 230 V±10 %***
Rated frequency f_N: **50 Hz***
Motor input power P_1: **1.10 kW***
Rated current I_N: **5.20 A***
Rated speed n_N: **830 min^{-1}***
Starting current I_A: 11.00 A
Current increase ΔI: 0 %
Service capacitor C_{400V}: 25.0 µF
Dynamic pressure: $p_{d2} = 3.5 \cdot 10^{-7} \cdot q_v^2$ [Pa]
Thermal class: **THCL155***
Min. permitted ambient temperature $t_{R(min)}$: -15 °C
Max. permitted ambient temperature $t_{R(max)}$: 60 °C
Protection class: IP54
Motor protection: Thermal contact
Impeller : High Performance Composite Material, uncoated, black
Motor: 1 coat paint, pebble grey
* Rated data

Characteristic curve



measured with inlet ring, without guard grille according to ISO 5801

Inlet ring	00279305	Page 450
Connection diagram	1360-104XA SW	Page 549
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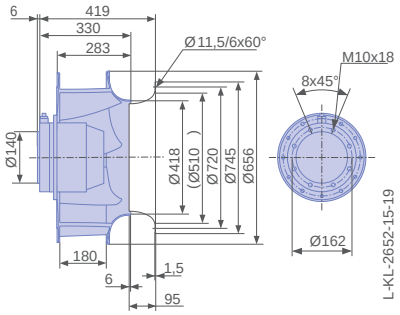
Dimensions [mm]

Free-running motor impeller RH
in installation position H/Vu/Vo



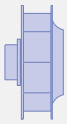
Performance data

Type	Characteristic curve	Voltage U [V]	Operating point	Current I [A]	Motor input power P_1 [W]	Speed n [min^{-1}]	Suction side sound power level L_{WA5} [dB]
RH63V-6EK.6N.1R	I	230	①	3.50	760	920	73
		230*	②	**5.20***	**1100***	**830***	66
		230	③	4.20	920	890	79
	II	200	④	3.50	660	900	72
		200	⑤	5.20	980	760	63
		200	⑥	4.20	820	840	77
	III	170	⑦	3.50	580	850	70
		170	⑧	5.00	780	650	61
		170	⑨	4.40	700	760	74
	IV	135	⑩	3.60	460	730	65
		135	⑪	4.40	520	500	58
		135	⑫	4.00	500	600	67
	V	110	⑬	3.40	340	570	59
		110	⑭	3.70	360	390	52
		110	⑮	3.60	350	480	63

*rated data

Fan ordering information

Design	RH*
Installation position	H/Vu/Vo
Electrical connection	Supply cable lateral 105cm



Type	**RH63V-6EK.6N.1R**
Article no.	**113315**
Weight [kg]	28.60

* Inlet ring not included

Control technology

Frequency inverter Fcontrol 1~

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Motor protection units 1~

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Transformer-based controllers 1~

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Electronic voltage controllers 1~

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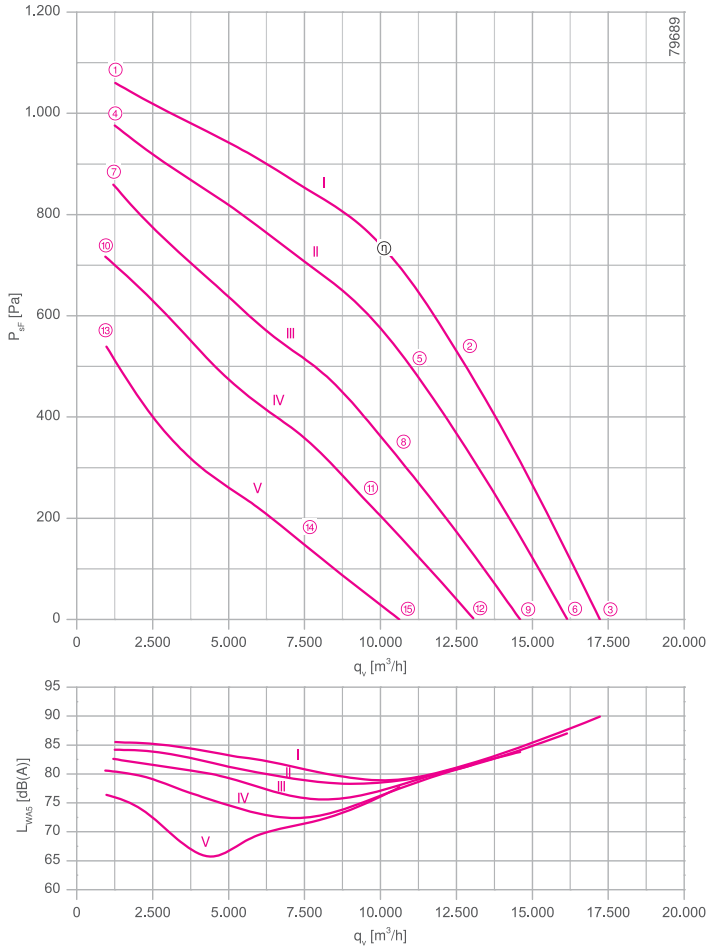
Vpro

for three phase alternating current, 4 pole

R H 6 3 V - 4 D

Characteristic curve



measured with inlet ring, without guard grille according to ISO 5801

Description

Motor technology: AC
Rated voltage U_N: **3~ 230/400 V (Δ/Y) ±10 %***
Rated frequency f_N: **50 Hz***
Motor input power P_1: **3.90 kW***
Rated current I_N: **13.90/6.6 A***
Rated speed n_N: **1360 min^{-1}***
Starting current I_A: 60.00 A / 36.00 A
Current increase ΔI: 20 %
Dynamic pressure: $p_{d2} = 3.5 \cdot 10^{-7} \cdot q_V^2$ [Pa]
Thermal class: **THCL155***
Min. permitted ambient temperature $t_{R(min)}$: -15 °C
Max. permitted ambient temperature $t_{R(max)}$: 50 °C
Protection class: IP54
Motor protection: Thermal contact
Impeller : High Performance Composite Material, uncoated, black
Motor: 1 coat paint, pebble grey
Conformity: ErP 2013, CE
ErP-Daten
Efficiency η_{statA}: 54.3 %
Efficiency: N_{actual} = 58.6 / N_{target} = 58**
* Rated data
**ErP 2013

Inlet ring	00279305	Page 450
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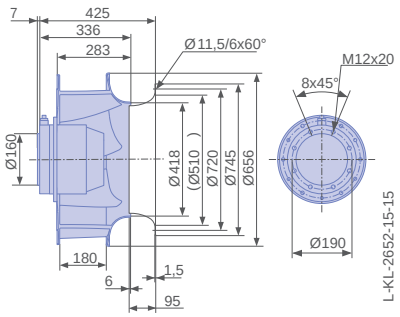
System components		Page 448

Dimensions [mm]

Free-running motor impeller RH
in installation position H/Vu/Vo



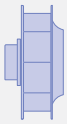
Performance data

Type	Characteristic curve	Voltage U [V]	Operating point	Current I [A]	Motor input power P_1 [W]	Speed n [min^{-1}]	Suction side sound power level L_{WA5} [dB]
RH63V-4DK.7Q.1R	I	400	①	4.20	2200	1430	86
		400*	②	**6.60***	**3900***	**1360***	81
		400	③	5.40	3100	1390	90
	II	300	④	4.40	2000	1370	84
		300	⑤	7.20	3400	1250	78
		300	⑥	6.00	2800	1310	87
	III	230	⑦	4.80	1750	1290	83
		230	⑧	8.00	2800	1100	77
		230	⑨	6.60	2400	1190	84
	IV	190	⑩	5.40	1600	1190	81
		190	⑪	7.80	2300	970	74
		190	⑫	7.00	2000	1070	82
	V	145	⑬	5.60	1200	1030	76
		145	⑭	7.40	1500	780	69
		145	⑮	6.80	1450	880	78

*rated data

Fan ordering information

Design	RH*
Installation position	H/Vo
Electrical connection	Supply cable lateral 105cm



Type	**RH63V-4DK.7Q.1R**
Article no.	**113273**
Weight [kg]	42.00

* Inlet ring not included

Control technology

Frequency inverter Fcontrol 3~

Page 484

Motor protection units 3~

Page 526

Transformer-based controllers 3~

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Electronic voltage controllers 3~

Page 506

Vpro

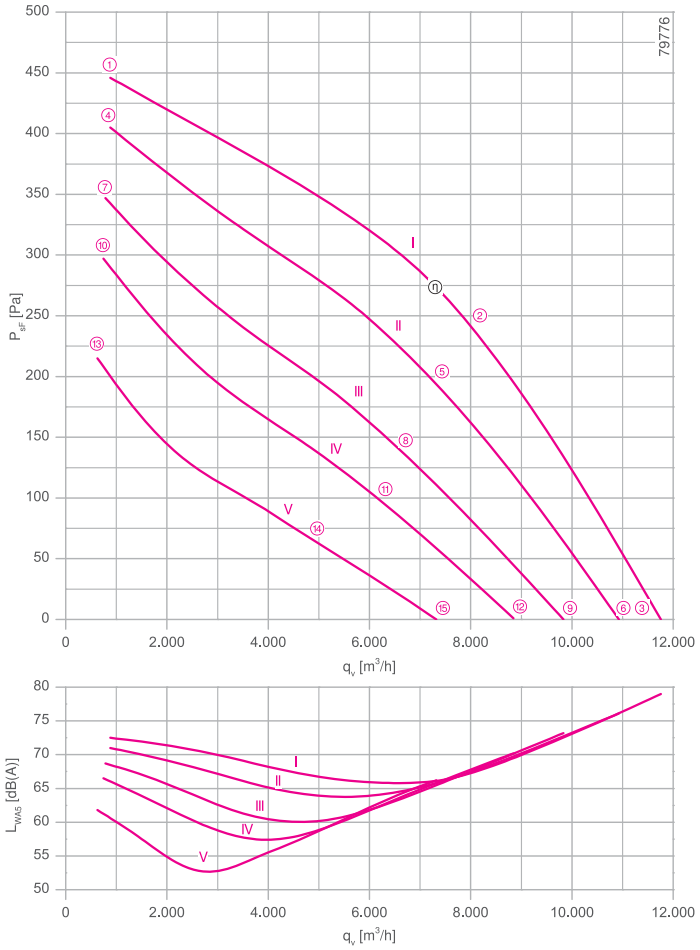
for three phase alternating current, 6 pole

RH63V-6D

Description

Motor technology: AC
Rated voltage U_N: **3~ 230/400 V (Δ/Y) ±10 %***
Rated frequency f_N: **50 Hz*** (60Hz data available)
Motor input power P_1: **1.15 kW***
Rated current I_N: **4.30/2.50 A***
Rated speed n_N: **880 min^{-1}***
Starting current I_A: 16.00 A / 9.00 A
Current increase ΔI: 0 %
Dynamic pressure: $p_{d2} = 3.5 \cdot 10^{-7} \cdot q_V^2$ [Pa]
Thermal class: **THCL155***
Min. permitted ambient temperature $t_{R(min)}$: -15 °C
Max. permitted ambient temperature $t_{R(max)}$: 60 °C
Protection class: IP54
Motor protection: Thermal contact
Impeller : High Performance Composite Material, uncoated, black
Motor: 1 coat paint, pebble grey
Conformity: ErP 2015, CE
ErP-Daten
Efficiency η_{statA}: 50.0 %
Efficiency: N_{actual} = 62.0 / N_{target} = 62**
Frequency inverter required
* Rated data
**ErP 2015

Characteristic curve



measured with inlet ring, without guard grille according to ISO 5801

Inlet ring	00279305	Page 450
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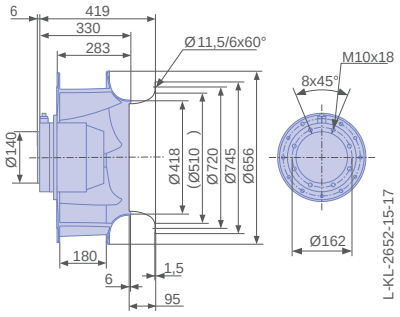
Dimensions [mm]

Free-running motor impeller RH
in installation position H/Vu/Vo



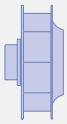
Performance data

Type	Characteristic curve	Voltage U [V]	Operating point	Current I [A]	Motor input power P_1 [W]	Speed n [min^{-1}]	Suction side sound power level L_{WA5} [dB]
RH63V-6DK.6K.1R	I	400	①	2.00	700	940	73
		400*	②	**2.50***	**1150***	**880***	67
		400	③	2.20	880	920	79
	II	300	④	1.65	580	890	71
		300	⑤	2.30	960	800	65
		300	⑥	1.95	740	850	76
	III	230	⑦	1.60	500	820	69
		230	⑧	2.30	760	700	64
		230	⑨	1.90	620	770	73
	IV	190	⑩	1.60	440	760	67
		190	⑪	2.20	600	620	62
		190	⑫	1.90	520	700	70
	V	145	⑬	1.60	330	650	62
		145	⑭	1.95	400	500	57
		145	⑮	1.75	370	580	66

*rated data

Fan ordering information

Design	RH*
Installation position	H/Vu/Vo
Electrical connection	Supply cable lateral 105cm



Type	**RH63V-6DK.6K.1R**
Article no.	**113274**
Weight [kg]	24.80

* Inlet ring not included

Control technology

Frequency inverter Fcontrol 3~

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Motor protection units 3~

Page 526

Transformer-based controllers 3~

Page 521

Electronic voltage controllers 3~

Page 506

V p r o

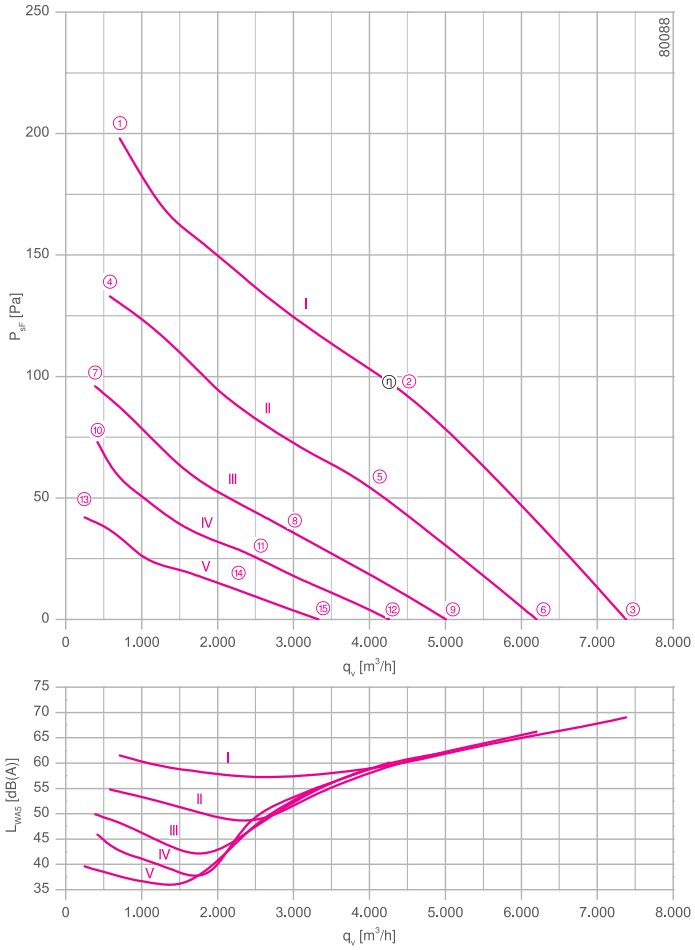
for three phase alternating current, 8 pole

R H 6 3 V - 8 D

Description

Motor technology: AC
Rated voltage U_N: **3~ 230/400 V (Δ/Y) ±10 %***
Rated frequency f_N: **50 Hz***
Motor input power P_1: **0.38 kW***
Rated current I_N: **0.85/0.50 A***
Rated speed n_N: **520 min^{-1}***
Starting current I_A: 2.60 A / 1.50 A
Current increase ΔI: 0 %
Dynamic pressure: $p_{d2} = 3.5 \cdot 10^{-7} \cdot q_V^2$ [Pa]
Thermal class: **THCL155***
Min. permitted ambient temperature $t_{R(min)}$: -15 °C
Max. permitted ambient temperature $t_{R(max)}$:
Protection class: IP54
Motor protection: Thermal contact
Impeller : High Performance Composite Material, uncoated, black
Motor: 1 coat paint, pebble grey
* Rated data

Characteristic curve

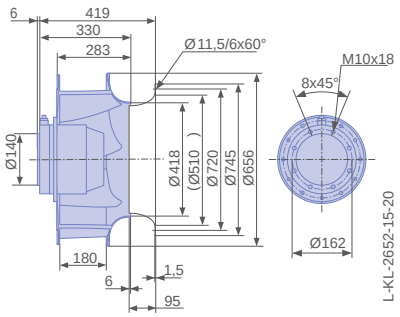


measured with inlet ring, without guard grille according to ISO 5801

Inlet ring	00279305	Page 450
Connection diagram	1360-106XA SW	Page 549
System components		Page 448

Dimensions [mm]

Free-running motor impeller RH
in installation position H/Vu/Vo



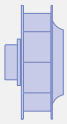
Performance data

Type	Characteristic curve	Voltage U [V]	Operating point	Current I [A]	Motor input power P_1 [W]	Speed n [min^{-1}]	Suction side sound power level L_{WA5} [dB]
RH63V-8DK.6C.1R	I	400	①	0.70	260	620	62
		400*	②	**0.86***	**380***	**520***	60
		400	③	0.78	320	570	69
	II	300	④	0.62	210	510	55
		300	⑤	0.72	250	420	53
		300	⑥	0.66	220	480	66
	III	230	⑦	0.54	140	440	50
		230	⑧	0.60	160	330	52
		230	⑨	0.56	150	390	62
	IV	190	⑩	0.48	110	380	46
		190	⑪	0.52	120	280	47
		190	⑫	0.50	110	330	60
	V	145	⑬	0.40	65	290	40
		145	⑭	0.42	70	220	36
		145	⑮	0.42	70	260	55

*rated data

Fan ordering information

Design	RH*
Installation position	H/Vo
Electrical connection	Supply cable lateral 105cm



Type	**RH63V-8DK.6C.1R**
Article no.	**113275**
Weight [kg]	18.60

* Inlet ring not included

Control technology

Frequency inverter Fcontrol 3~

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Motor protection units 3~

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Transformer-based controllers 3~

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Electronic voltage controllers 3~

Page 506

V p r o

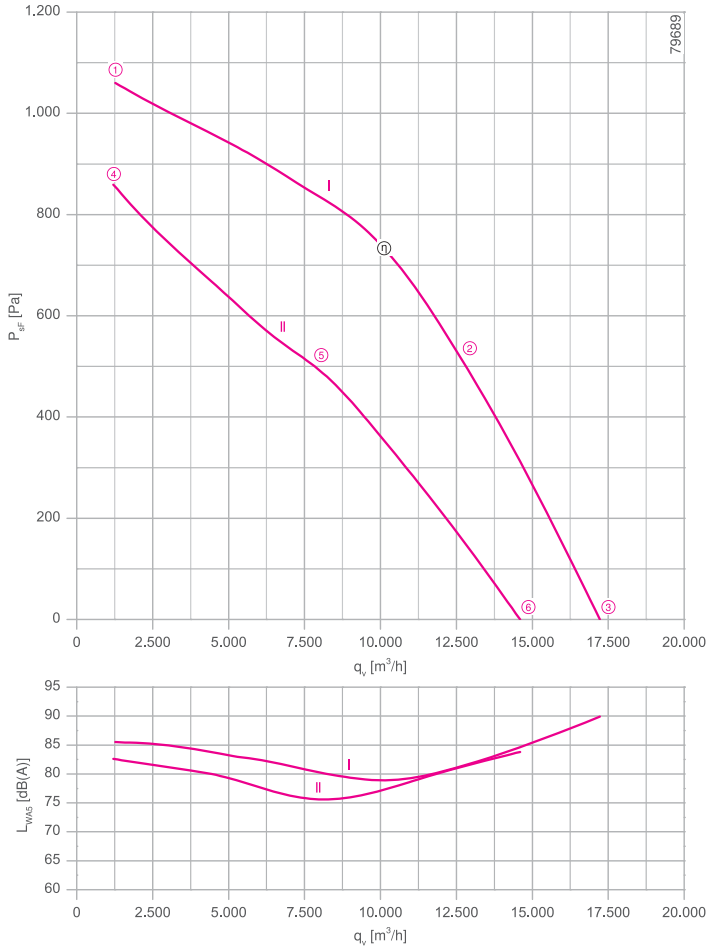
for three phase alternating current, 4-4 pole

R H 6 3 V - V D

Description

Motor technology: AC
Rated voltage U_N: **3~ 400 V (Δ/Y) ±10 %***
Rated frequency f_N: **50 Hz***
Motor input power P_1: **3.90/2.80 kW***
Rated current I_N: **6.60/4.60 A***
Rated speed n_N: **1360/1100 min^{-1}***
Starting current I_A: 34.00 A / 10.00 A
Current increase ΔI: 20 %
Dynamic pressure: $p_{d2} = 3.5 \cdot 10^{-7} \cdot q_V^2$ [Pa]
Thermal class: **THCL155***
Min. permitted ambient temperature $t_{R(min)}$: -15 °C
Max. permitted ambient temperature $t_{R(max)}$: 50 °C
Protection class: IP54
Motor protection: Thermal contact
Impeller : High Performance Composite Material, uncoated, black
Motor: 1 coat paint, pebble grey
Conformity: ErP 2013, CE
ErP-Daten
Efficiency η_{statA}: 54.3 %
Efficiency: N_{actual} = 58.6 / N_{target} = 58**
* Rated data
**ErP 2013

Characteristic curve



measured with inlet ring, without guard grille according to ISO 5801

Inlet ring	00279305	Page 450
Connection diagram	1360-108XA SW	Page 549
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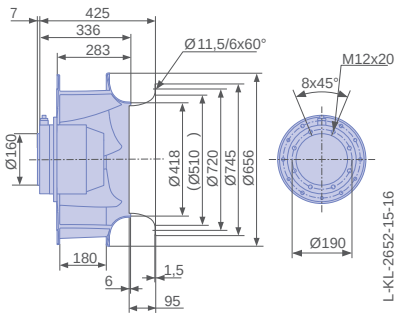
Dimensions [mm]

Free-running motor impeller RH
in installation position H/Vu/Vo



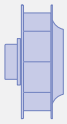
Performance data

Type	Connection	Characteristic curve	Voltage U [V]	Operating point	Current I [A]	Motor input power P_1 [W]	Speed n [min^{-1}]	Suction side sound power level L_{WA5} [dB]
RH63V-VDK.7Q.1R	Δ	I	400	①	4.20	2200	1430	86
			400*	②	**6.60***	**3900***	**1360***	81
			400	③	5.40	3100	1390	90
	Y	II	400	④	2.80	1750	1290	83
			400*	⑤	**4.60***	**2800***	**1100***	77
			400	⑥	3.90	2400	1190	84

*rated data

Fan ordering information

Design	RH*
Installation position	H/Vo
Electrical connection	Supply cable lateral 105cm



Type	**RH63V-VDK.7Q.1R**
Article no.	**113383**
Weight [kg]	42.00

* Inlet ring not included

Control technology

Frequency inverter Fcontrol 3~

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Motor protection units 3~

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Transformer-based controllers 3~

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Electronic voltage controllers 3~

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Vpro

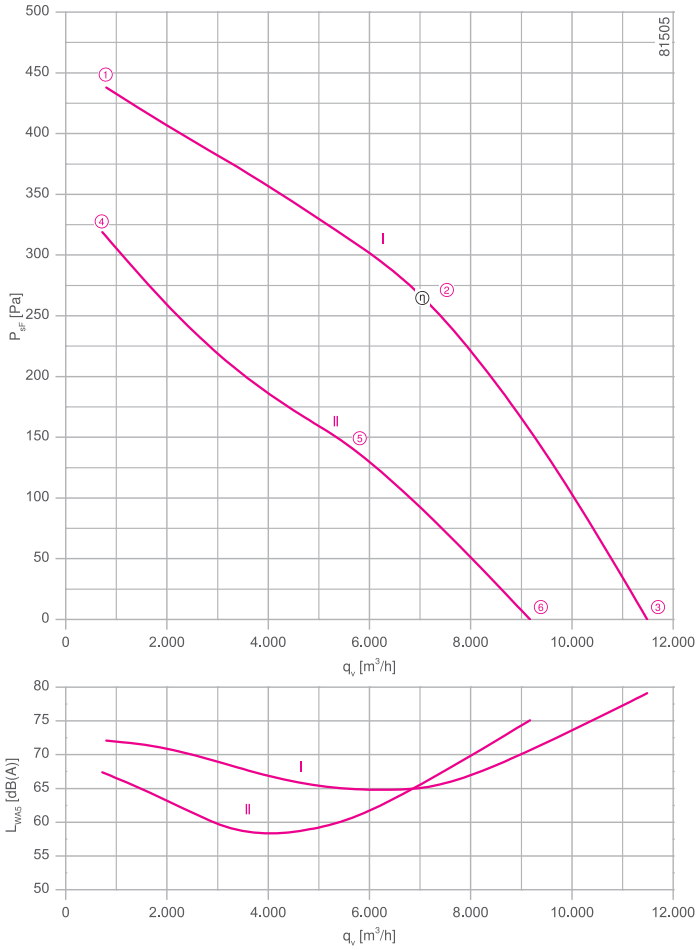
for three phase alternating current, 6-6 pole

R H 6 3 V - S D

Description

Motor technology: AC
Rated voltage U_N: **3~ 400 V (Δ/Y) ±10 %***
Rated frequency f_N: **50 Hz***
Motor input power P_1: **1,10/0,66 kW***
Rated current I_N: **2,10/1,15 A***
Rated speed n_N: **850/ 640 min^{-1}***
Starting current I_A: 7.00 A / 2.20 A
Current increase ΔI: 0 %
Dynamic pressure: $p_{d2} = 3.5 \cdot 10^{-7} \cdot q_V^2$ [Pa]
Thermal class: **THCL155***
Min. permitted ambient temperature $t_{R(min)}$: -15 °C
Max. permitted ambient temperature $t_{R(max)}$: 60 °C
Protection class: IP54
Motor protection: Thermal contact
Impeller : High Performance Composite Material, uncoated, black
Motor: 1 coat paint, pebble grey
Conformity: ErP 2013, CE
ErP-Daten
Efficiency η_{statA}: 49.5 %
Efficiency: N_{actual} = 59.7 / N_{target} = 58**
* Rated data
**ErP 2013

Characteristic curve



measured with inlet ring, without guard grille according to ISO 5801

Inlet ring	00279305	Page 450
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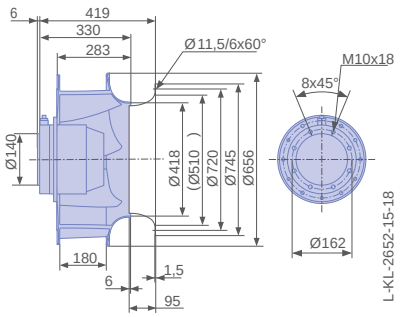
Dimensions [mm]

Free-running motor impeller RH
in installation position H/Vu/Vo



Performance data

Type	Connection	Characteristic curve	Voltage U [V]	Operating point	Current I [A]	Motor input power P_1 [W]	Speed n [min^{-1}]	Suction side sound power level L_{WA5} [dB]
RH63V-SDK.6K.1R	Δ	I	400	①	1.60	640	920	72
			400*	②	**2.10***	**1100***	**850***	67
			400	③	1.85	840	890	79
	Y	II	400	④	0.84	460	790	67
			400*	⑤	**1.15***	**660***	**640***	60
			400	⑥	0.98	560	720	75

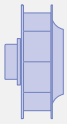
*rated data

Fan ordering information

Design RH*

Installation position H/Vo

Electrical connection Supply cable lateral 105cm



Type **RH63V-SDK.6K.1R**

Article no. **113384**

Weight [kg] 24.80

* Inlet ring not included

Control technology

Frequency inverter Fcontrol 3~

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Electronic voltage controllers 3~

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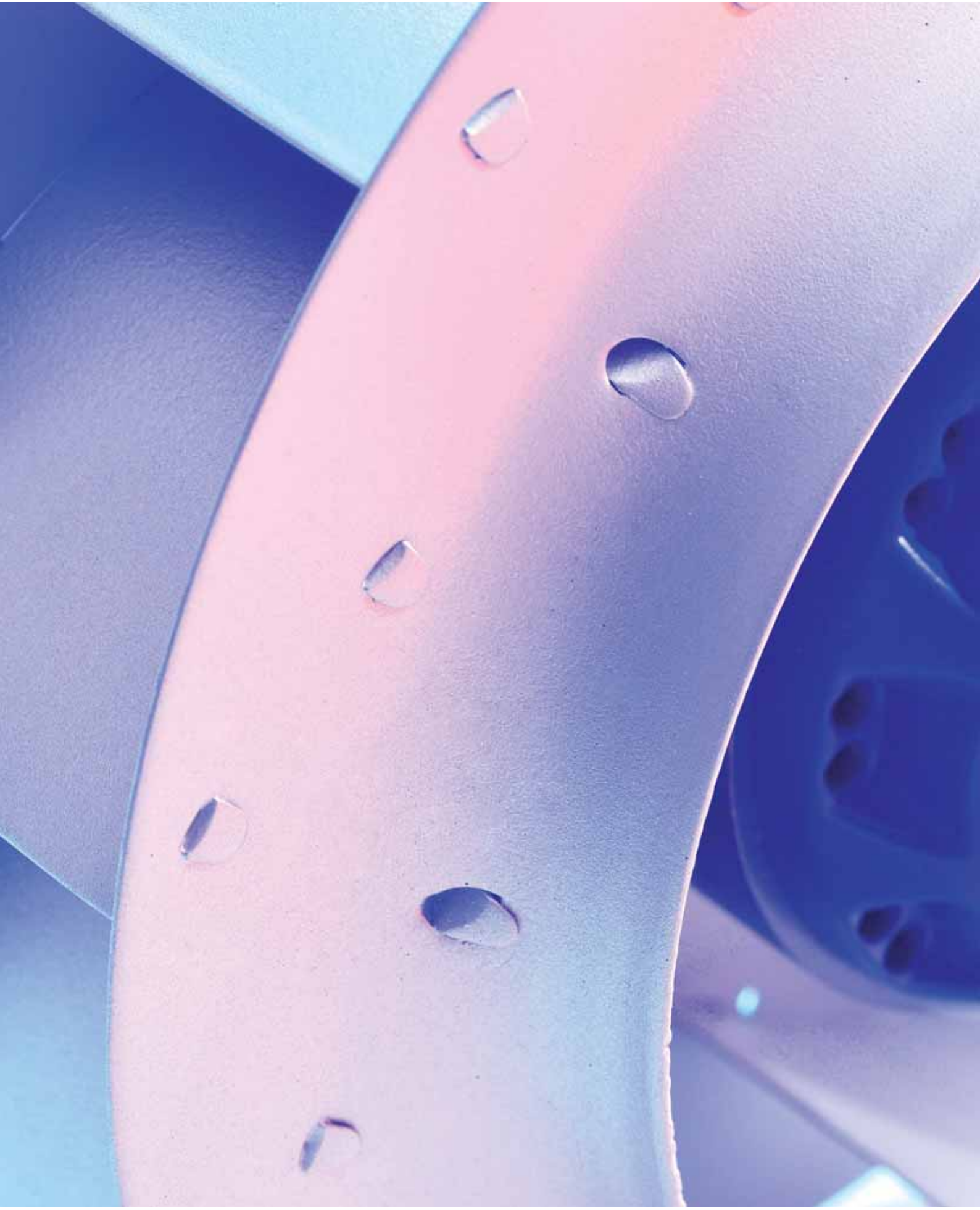


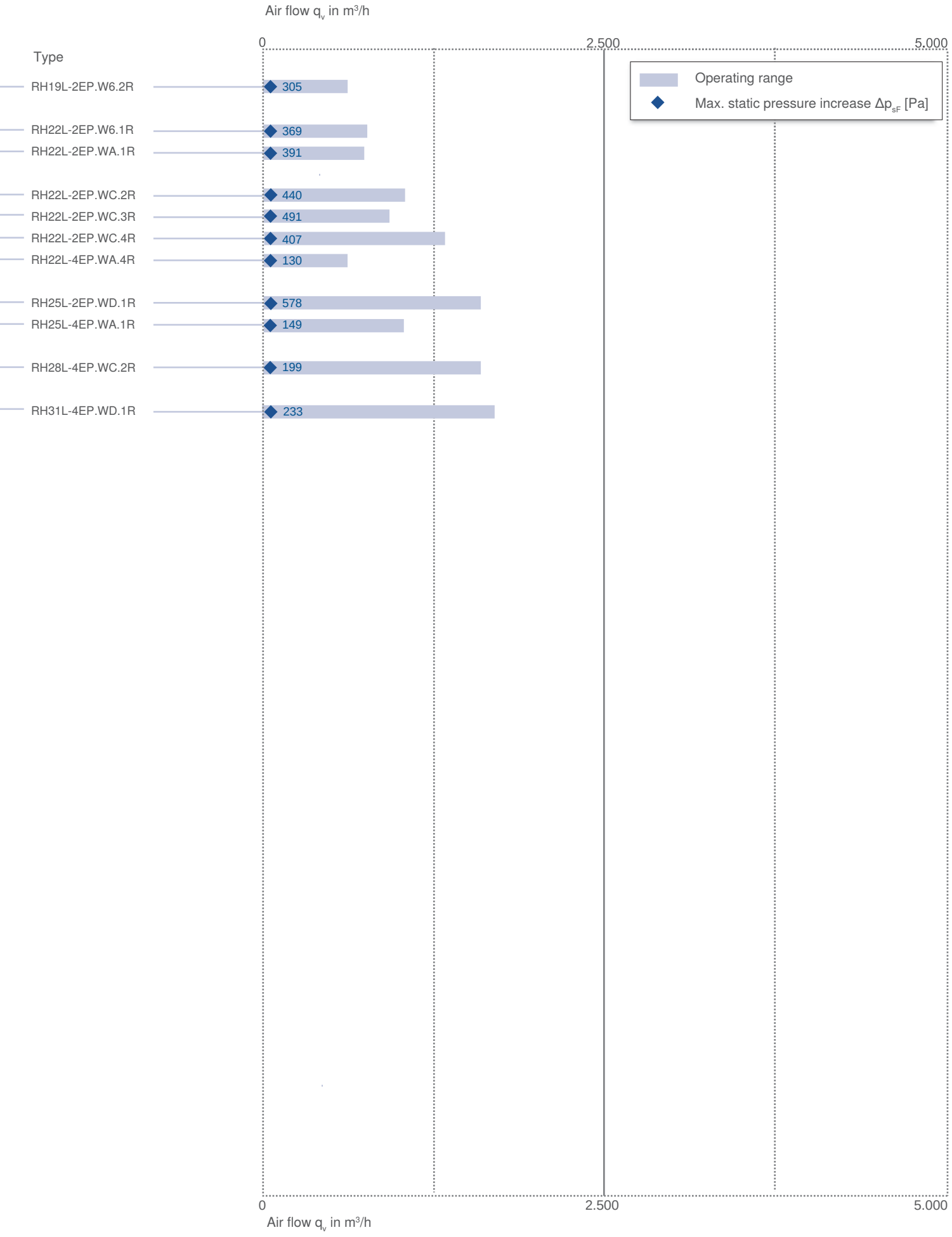
Centrifugal Fans L-series

AC technology

Product overview

Size	Voltage	Pole-count	Type	Impeller position	ErP	Page
190	1~ 230 V	2	RH19L-2EP.W6.1R	P	**	390
220	1~ 230 V	2	RH22L-2EP.W6.1R	P	**	392
			RH22L-2EP.WA.1R	P	**	394
225	1~ 230 V	2	RH22L-2EP.WC.2R	P	-	396
			RH22L-2EP.WC.3R	P	**	398
			RH22L-2EP.WC.4R	P	-	400
		4	RH22L-4EP.WA.4R	P	**	402
250	1~ 230 V	2	RH25L-2EP.WD.1R	P	-	404
		4	RH25L-4EP.WA.1R	P	**	406
280	1~ 230 V	4	RH28L-4EP.WC.2R	P	**	408
315	1~ 230 V	4	RH31L-4EP.WD.1R	P	-	410

** Not subject to ErP regulation (P_1 < 125 W)

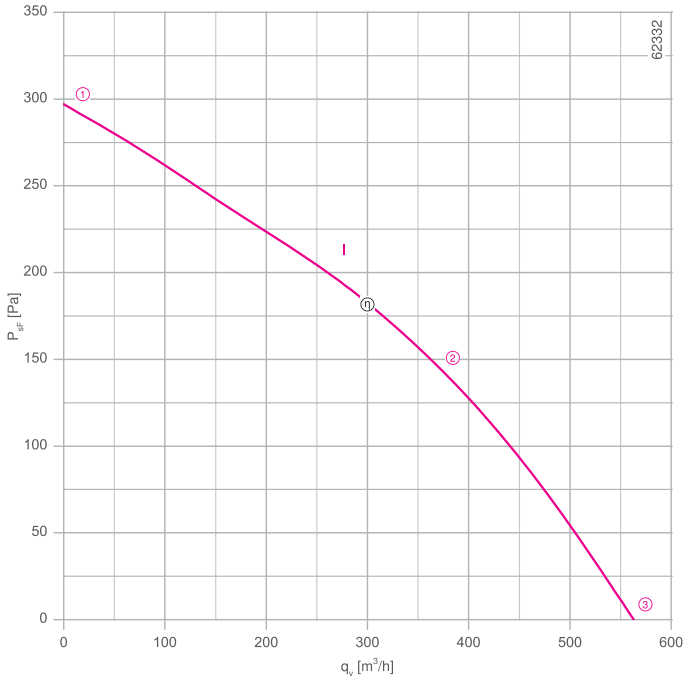

Air flow q_v in m³/h
0
2.500
5.000
Type
RH19L-2EP.W6.2R
305
RH22L-2EP.W6.1R
369
RH22L-2EP.WA.1R
391
RH22L-2EP.WC.2R
440
RH22L-2EP.WC.3R
491
RH22L-2EP.WC.4R
407
RH22L-4EP.WA.4R
130
RH25L-2EP.WD.1R
578
RH25L-4EP.WA.1R
149
RH28L-4EP.WC.2R
199
RH31L-4EP.WD.1R
233
Operating range
Max. static pressure increase Δp_{sF} [Pa]
0
2.500
5.000
Air flow q_v in m³/h

L-series

for single phase alternating current, 2 pole

R H 1 9 L - 2 E

Characteristic curve



measured with inlet ring, without guard grille according to ISO 5801

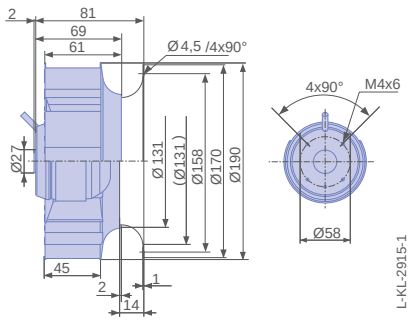
Description

Motor technology: AC
Rated voltage U_N: **1~ 230 V***
Rated frequency f_N: **50 Hz*** (60Hz data available)
Motor input power P_1: **0.07 kW***
Rated current I_N: **0.29 A***
Rated speed n_N: **2400 min^{-1}***
Current increase ΔI: 0 %
Service capacitor C_{400V}: 2.0 µF
Thermal class: **THCL130***
Min. permitted ambient temperature $t_{R(min)}$: -30 °C
Max. permitted ambient temperature $t_{R(max)}$: 70 °C
Motor protection: Thermal contact
Impeller : High Performance Composite Material, uncoated
Conformity: CE
ErP-data
Not subject to ErP regulations (P_1< 125 W)
* Rated data

Inlet ring	00407897	Page 451
Connection diagram	1360-177X SW	Page 550
System components		Page 448

Dimensions [mm]

Free-running motor impeller RH
in installation position H/Vu/Vo



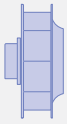
Performance data

Type	Characteristic curve	Voltage U [V]	Operating point	Current I [A]	Motor input power P_1 [W]	Speed n [min^{-1}]	Suction side sound power level L_{WA5} [dB]
RH19L-2EP.W6.1R	I	230	①	0.20	46	2810	
		230*	②	**0.29***	**65***	**2400***	66
		230	③	0.26	60	2530	70

*rated data

Fan ordering information

Design	RH*
Installation position	H/Vu/Vo
Electrical connection	Supply cable variable 45cm



Type	**RH19L-2EP.W6.1R**
Article no.	**113035**
Weight [kg]	1.40

* Inlet ring not included

Control technology

Frequency inverter Fcontrol 1~

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Motor protection units 1~

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Transformer-based controllers 1~

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Electronic voltage controllers 1~

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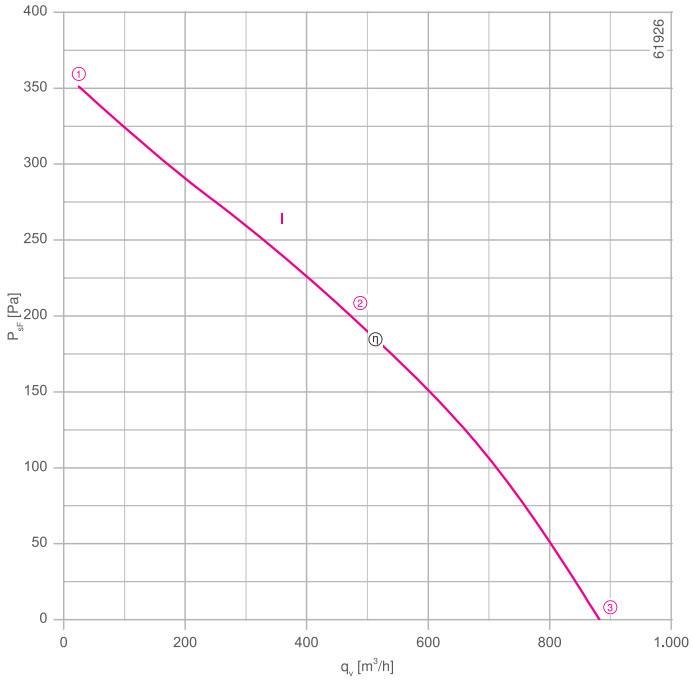
L-series

for single phase alternating current, 2 pole

R H 2 2 L - 2 E

Characteristic curve



measured with inlet ring, without guard grille according to ISO 5801

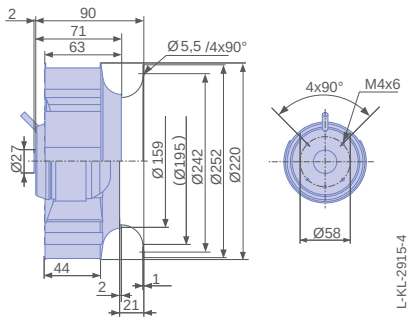
Description

Motor technology: AC
Rated voltage U_N: **1~ 230 V***
Rated frequency f_N: **50 Hz*** (60Hz data available)
Motor input power P_1: **0.10 kW***
Rated current I_N: **0.43 A***
Rated speed n_N: **2390 min^{-1}***
Current increase ΔI: 0 %
Service capacitor C_{400V}: 3.0 µF
Thermal class: **THCL155***
Min. permitted ambient temperature $t_{R(min)}$: -40 °C
Max. permitted ambient temperature $t_{R(max)}$: 45°C
Motor protection: Thermal contact
Impeller : High Performance Composite Material, uncoated
Conformity: CE
ErP-data
Not subject to ErP regulations (P_1< 125 W)
* Rated data

Inlet ring	00407898	Page 451
Connection diagram	1360-177X SW	Page 550
System components		Page 448

Dimensions [mm]

Free-running motor impeller RH
in installation position H/Vu/Vo



Performance data

Type	Characteristic curve	Voltage U [V]	Operating point	Current I [A]	Motor input power P_1 [W]	Speed n [min^{-1}]	Suction side sound power level L_{WA5} [dB]
RH22L-2EP.W6.1R	I	230	①	0.33	75	2760	
		230*	②	**0.44***	**100***	**2390***	70
		230	③	0.35	80	2650	76

*rated data

Fan ordering information

Design	RH*
Installation position	H/Vu/Vo
Electrical connection	Supply cable variable 45cm

Type	**RH22L-2EP.W6.1R**
Article no.	**113037**
Weight [kg]	1.55

* Inlet ring not included

Control technology

Frequency inverter Fcontrol 1~

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Motor protection units 1~

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Transformer-based controllers 1~

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Electronic voltage controllers 1~

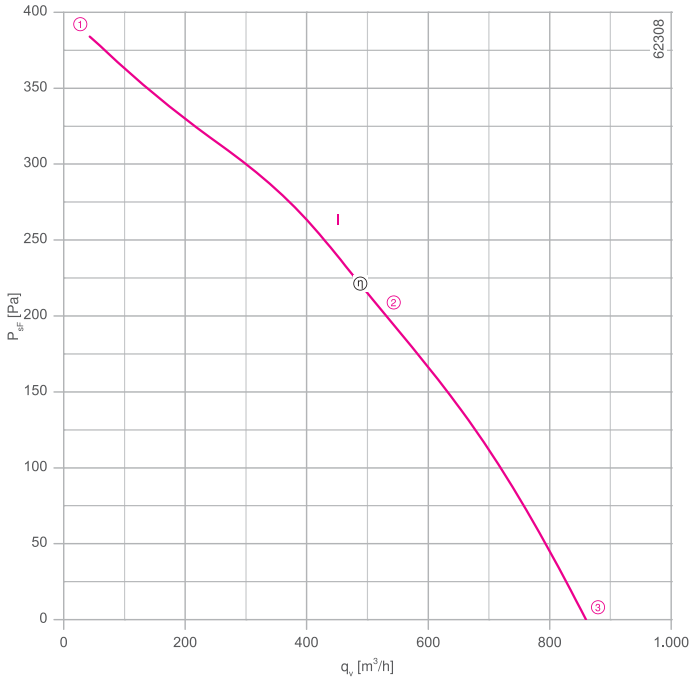
Page 492

L-series

for single phase alternating current, 2 pole

R H 2 2 L- 2 E

Characteristic curve



measured with inlet ring, without guard grille according to ISO 5801

Description

Motor technology: AC
Rated voltage U_N: **1~ 230 V***
Rated frequency f_N: **50 Hz*** (60Hz data available)
Motor input power P_1: **0.10 kW***
Rated current I_N: **0.44 A***
Rated speed n_N: **2500 min^{-1}***
Current increase ΔI: 0 %
Service capacitor C_{400V}: 2.5 µF
Thermal class: **THCL130***
Min. permitted ambient temperature $t_{R(min)}$: -30 °C
Max. permitted ambient temperature $t_{R(max)}$: 60 °C
Motor protection: Thermal contact
Impeller : High Performance Composite Material, uncoated
Conformity: CE
ErP-data
Not subject to ErP regulations (P_1< 125 W)
* Rated data

Inlet ring	00407898	Page 451
Connection diagram	1360-177X SW	Page 550
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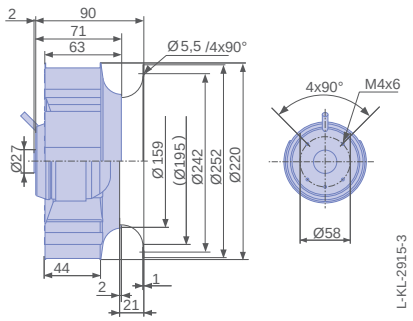
Dimensions [mm]

Free-running motor impeller RH
in installation position H/Vu/Vo



Performance data

Type	Characteristic curve	Voltage U [V]	Operating point	Current I [A]	Motor input power P_1 [W]	Speed n [min^{-1}]	Suction side sound power level L_{WA5} [dB]
RH22L-2EP.WA.1R	I	230	①	0.29	65	2820	
		230*	②	**0.44***	**100***	**2500***	72
		235	③	0.35	80	2710	77

*rated data

Fan ordering information

Design	RH*
Installation position	H/Vu/Vo
Electrical connection	Supply cable variable 45cm

Type	**RH22L-2EP.WA.1R**
Article no.	**113036**
Weight [kg]	1.91

* Inlet ring not included

Control technology

Frequency inverter Fcontrol 1~

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Motor protection units 1~

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Electronic voltage controllers 1~

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L-series

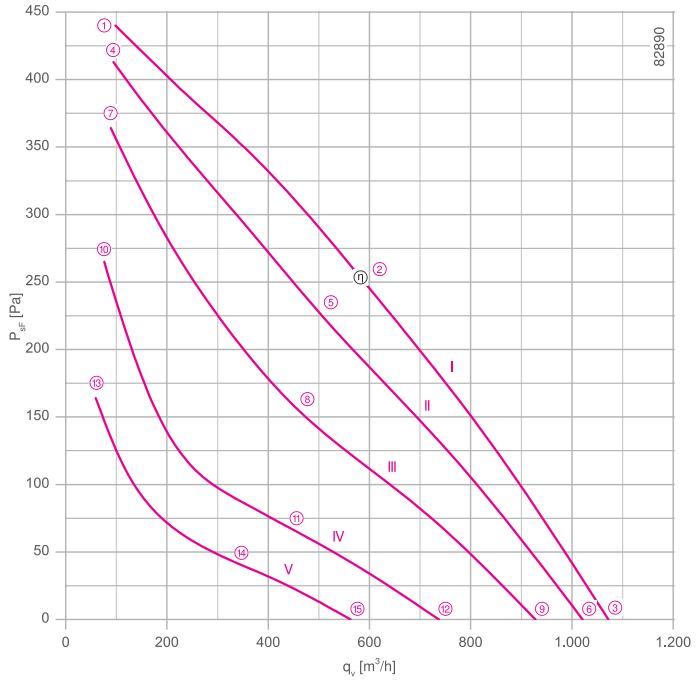
for single phase alternating current, 2 pole

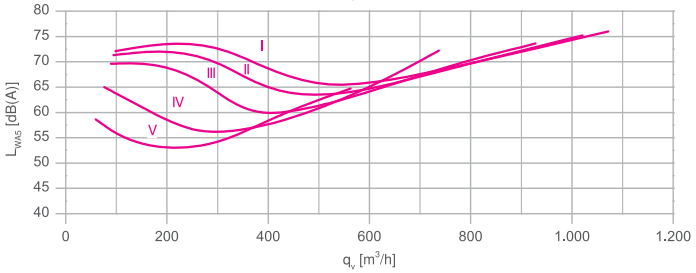
R H 2 2 L- 2 E

Description

Motor technology: AC
Rated voltage U_N: **1~ 230 V***
Rated frequency f_N: **50 Hz*** (60Hz data available)
Motor input power P_1: **0.12 kW***
Rated current I_N: **0.54 A***
Rated speed n_N: **2450 min^{-1}***
Current increase ΔI: 0 %
Service capacitor C_{400V}: 4.0 µF
Thermal class: **THCL155***
Min. permitted ambient temperature $t_{R(min)}$: -30 °C
Max. permitted ambient temperature $t_{R(max)}$: 60 °C
Motor protection: Thermal contact
Impeller : High Performance Composite Material, uncoated
Conformity: CE
ErP-data
Not subject to ErP regulations (P_1< 125 W)
* Rated data

Characteristic curve



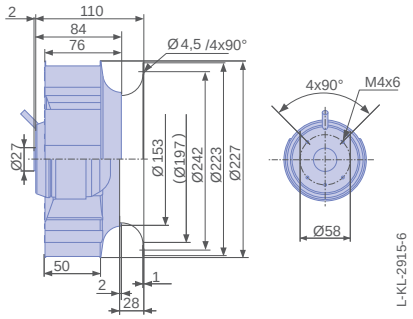


measured with inlet ring, without guard grille according to ISO 5801

Inlet ring	00407899	Page 451
Connection diagram	1360-177X SW	Page 550
System components		Page 448

Dimensions [mm]

Free-running motor impeller RH
in installation position H/Vu/Vo



Performance data

Type	Characteristic curve	Voltage U [V]	Operating point	Current I [A]	Motor input power P_1 [W]	Speed n [min⁻¹]	Suction side sound power level L_{WA5} [dB]
RH22L-2EP.WC.2R	I	230	①	0.42	90	2720	72
		230*	②	**0.54***	**120***	**2450***	66
		230	③	0.46	100	2630	76
	II	200	④	0.40	80	2630	71
		200	⑤	0.54	110	2240	64
		200	⑥	0.46	90	2500	75
	III	170	⑦	0.40	65	2480	70
		170	⑧	0.52	85	1920	60
		170	⑨	0.46	75	2280	74
	IV	135	⑩	0.38	50	2110	65
		135	⑪	0.46	60	1440	57
		135	⑫	0.42	55	1820	72
	V	110	⑬	0.36	40	1670	59
		110	⑭	0.38	42	1110	53
		110	⑮	0.37	42	1390	65

*rated data

Fan ordering information

Design	RH*
Installation position	H/Vu/Vo
Electrical connection	Supply cable variable 45cm

Type	**RH22L-2EP.WC.2R**
Article no.	**161616**
Weight [kg]	2.55

* Inlet ring not included

Control technology

Frequency inverter Fcontrol 1~

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Motor protection units 1~

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Transformer-based controllers 1~

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Electronic voltage controllers 1~

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L-series

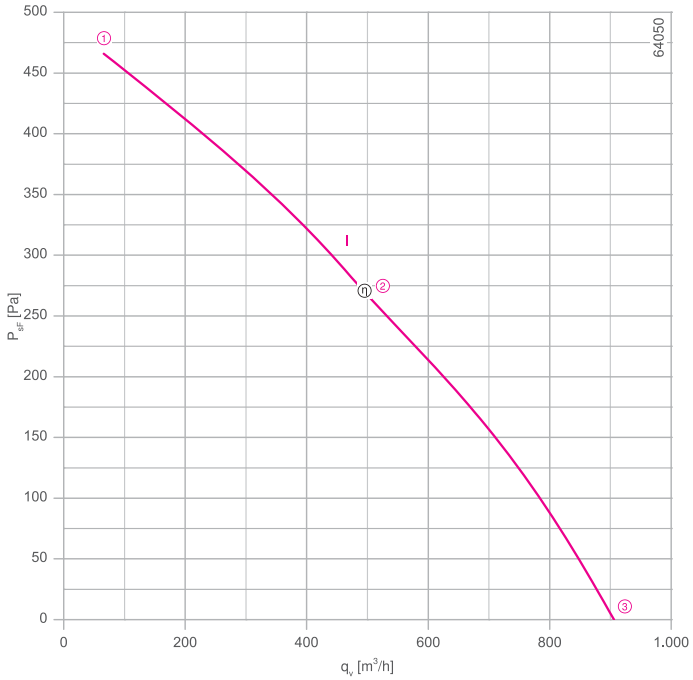
for single phase alternating current, 2 pole

R H 2 2 L - 2 E

Description

Motor technology: AC
Rated voltage U_N: **1~ 230 V***
Rated frequency f_N: **50 Hz*** (60Hz data available)
Motor input power P_1: **0.11 kW***
Rated current I_N: **0.48 A***
Rated speed n_N: **2560 min^{-1}***
Current increase ΔI: 5 %
Service capacitor C_{400V}: 3.0 µF
Thermal class: **THCL130***
Min. permitted ambient temperature $t_{R(min)}$: -30 °C
Max. permitted ambient temperature $t_{R(max)}$: 70 °C
Motor protection: Thermal contact
Impeller : Galvanised sheet metal, uncoated
Conformity: CE
ErP-data
Not subject to ErP regulations (P_1< 125 W)
* Rated data

Characteristic curve



measured with inlet ring, without guard grille according to ISO 5801

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Connection diagram	1360-177X SW	Page 550
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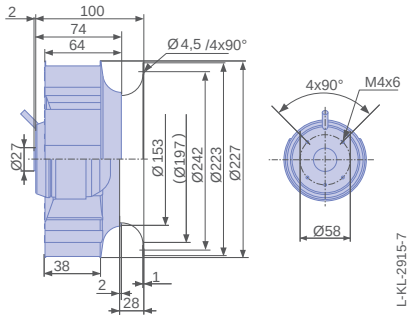
Dimensions [mm]

Free-running motor impeller RH
in installation position H/Vu/Vo



Performance data

Type	Characteristic curve	Voltage U [V]	Operating point	Current I [A]	Motor input power P_1 [W]	Speed n [min^{-1}]	Suction side sound power level L_{WA5} [dB]
RH22L-2EP.WC.3R	I	230	①	0.32	70	2820	
		230*	②	**0.48***	**110***	**2560***	68
		230	③	0.39	90	2720	77

*rated data

Fan ordering information

Design	RH*
Installation position	H/Vu/Vo
Electrical connection	Supply cable variable 45cm

Type	**RH22L-2EP.WC.3R**
Article no.	**113039**
Weight [kg]	2.50

* Inlet ring not included

Control technology

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Motor protection units 1~

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Transformer-based controllers 1~

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Electronic voltage controllers 1~

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L-series

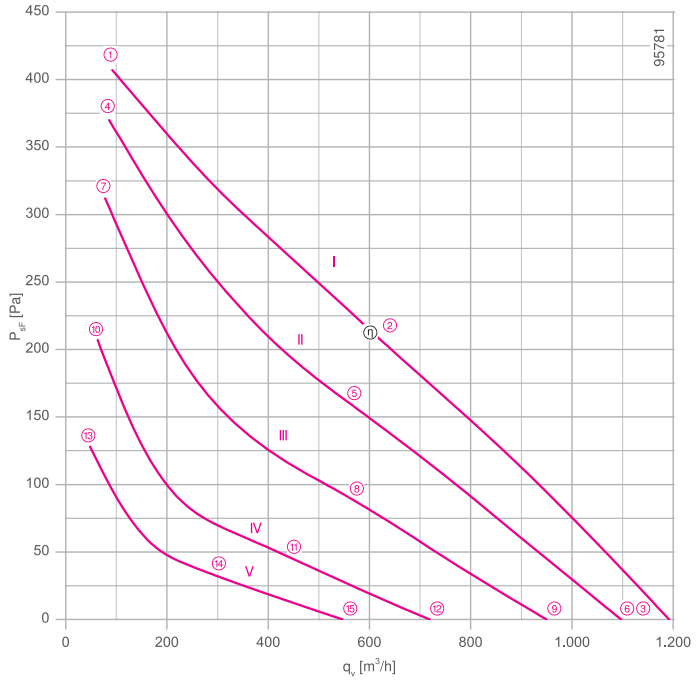
for single phase alternating current, 2 pole

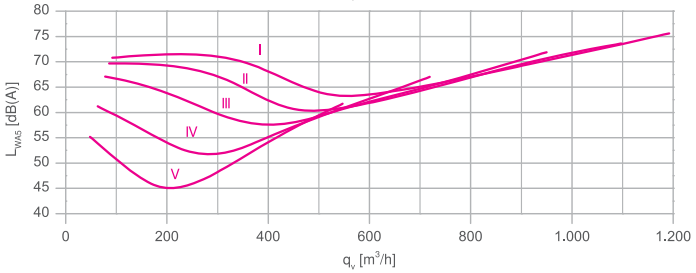
R H 2 2 L- 2 E

Description

Motor technology: AC
Rated voltage U_N: **1~ 230 V***
Rated frequency f_N: **50 Hz*** (60Hz data available)
Motor input power P_1: **0.12 kW***
Rated current I_N: **0.52 A***
Rated speed n_N: **2180 min^{-1}***
Current increase ΔI: 0 %
Service capacitor C_{400V}: 4.0 µF
Thermal class: **THCL155***
Min. permitted ambient temperature $t_{R(min)}$: -40 °C
Max. permitted ambient temperature $t_{R(max)}$: 70 °C
Motor protection: Thermal contact
Impeller : Galvanised sheet metal, uncoated
Conformity: CE
ErP-data
Not subject to ErP regulations (P_1< 125 W)
* Rated data

Characteristic curve





measured with inlet ring, without guard grille according to ISO 5801

Inlet ring	00407899	Page 451
Connection diagram	1360-177X SW	Page 550
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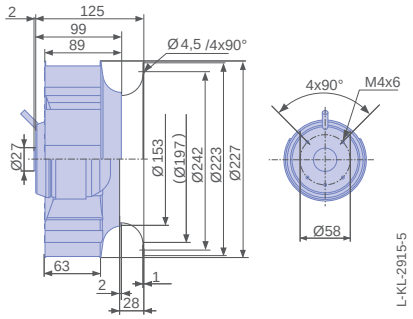
Dimensions [mm]

Free-running motor impeller RH
in installation position H/Vu/Vo



Performance data

Type	Characteristic curve	Voltage U [V]	Operating point	Current I [A]	Motor input power P_1 [W]	Speed n [min⁻¹]	Suction side sound power level L_{WA5} [dB]
RH22L-2EP.WC.4R	I	230	①	0.39	85	2610	71
		230*	②	**0.52***	**120***	**2180***	64
		230	③	0.46	100	2430	76
	II	200	④	0.39	75	2490	70
		200	⑤	0.50	100	1940	61
		200	⑥	0.46	90	2240	74
	III	170	⑦	0.38	60	2290	67
		170	⑧	0.46	80	1600	58
		170	⑨	0.44	75	1950	72
	IV	135	⑩	0.35	48	1870	61
		135	⑪	0.40	55	1200	52
		135	⑫	0.38	50	1480	67
	V	110	⑬	0.31	34	1470	55
		110	⑭	0.33	36	940	46
		110	⑮	0.33	36	1130	62

*rated data

Fan ordering information

Design	RH*
Installation position	H/Vu/Vo
Electrical connection	Supply cable variable 45cm

Type	**RH22L-2EP.WC.4R**
Article no.	**161615**
Weight [kg]	2.64

* Inlet ring not included

Control technology

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Electronic voltage controllers 1~

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L-series

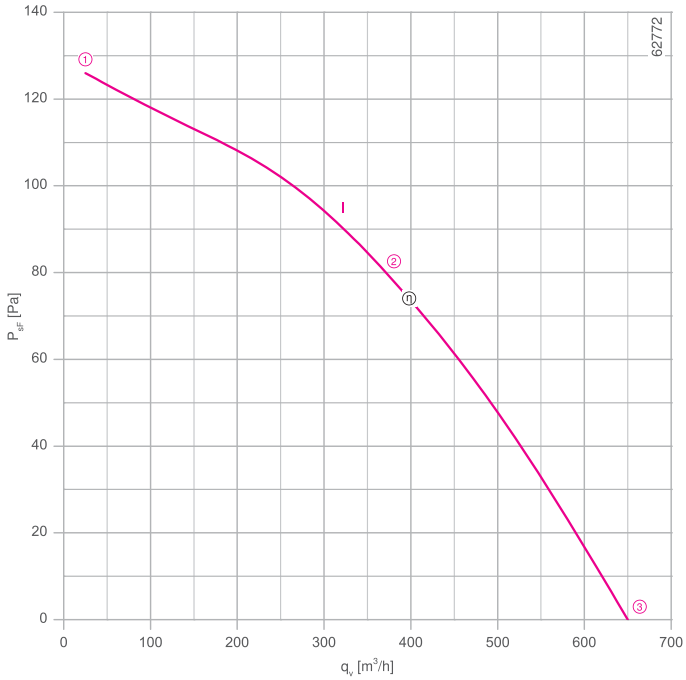
for single phase alternating current, 4 pole

R H 2 2 L- 4 E

Description

Motor technology: AC
Rated voltage U_N: **1~ 230 V***
Rated frequency f_N: **50 Hz*** (60Hz data available)
Motor input power P_1: **0.04 kW***
Rated current I_N: **0.22 A***
Rated speed n_N: **1350 min^{-1}***
Current increase ΔI: 0 %
Service capacitor C_{400V}: 1.5 µF
Dynamic pressure: $p_{dz} = 2.4 \cdot 10^{-5} \cdot q_V^2$ [Pa]
Thermal class: **THCL130***
Min. permitted ambient temperature $t_{R(min)}$: -30 °C
Max. permitted ambient temperature $t_{R(max)}$: 50 °C
Motor protection: Thermal contact
Impeller : Galvanised sheet metal, uncoated
Conformity: CE
ErP-data
Not subject to ErP regulations (P_1< 125 W)
* Rated data

Characteristic curve



measured with inlet ring, without guard grille according to ISO 5801

Inlet ring	00407899	Page 451
Connection diagram	1360-177X SW	Page 550
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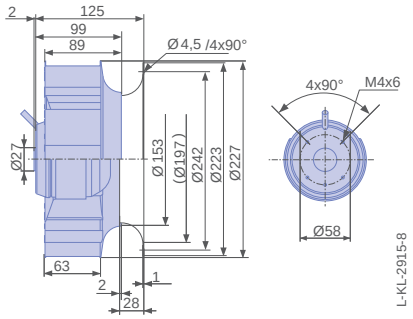
Dimensions [mm]

Free-running motor impeller RH
in installation position H/Vu/Vo



Performance data

Type	Characteristic curve	Voltage U [V]	Operating point	Current I [A]	Motor input power P_1 [W]	Speed n [min^{-1}]	Suction side sound power level L_{WA5} [dB]
RH22L-4EP.WA.4R	I	230	①	0.21	38	1430	
		230*	②	**0.22***	**44***	**1350***	55
		230	③	0.21	40	1390	64

*rated data

Fan ordering information

Design	RH*
Installation position	H/Vu/Vo
Electrical connection	Supply cable variable 45cm

Type	**RH22L-4EP.WA.4R**
Article no.	**113040**
Weight [kg]	2.16

* Inlet ring not included

Control technology

Frequency inverter Fcontrol 1~	Motor protection units 1~	Transformer-based controllers 1~	Electronic voltage controllers 1~
			
Page 478	Page 526	Page 517	Page 492

L-series

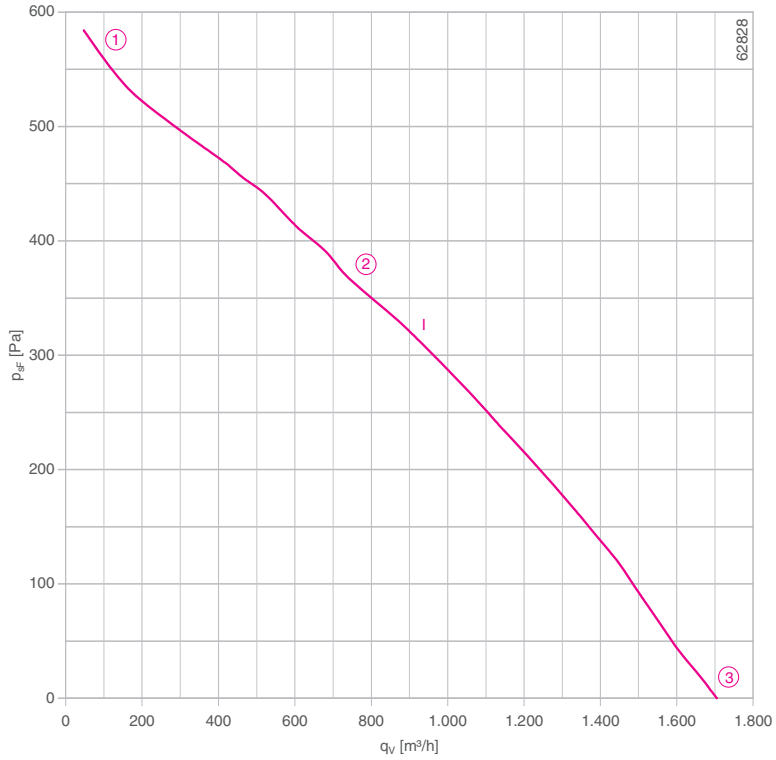
for single phase alternating current, 2 pole

R H 2 5 L - 2 E

Description

Motor technology: AC
Rated voltage U_N: **1~ 230 V***
Rated frequency f_N: **50 Hz*** (60Hz data available)
Motor input power P_1: **0.21 kW***
Rated current I_N: **0.94 A***
Rated speed n_N: **2450 min^{-1}***
Current increase ΔI: 0 %
Service capacitor C_{400V}: 8.0 µF
Dynamic pressure: $p_{dz} = 2.5 \cdot 10^{-5} \cdot q_V^2$ [Pa]
Thermal class: **THCL130***
Min. permitted ambient temperature $t_{R(min)}$: -30 °C
Max. permitted ambient temperature $t_{R(max)}$: 50 °C
Motor protection: Thermal contact
Impeller : Galvanised sheet metal, uncoated
* Rated data

Characteristic curve



measured with inlet ring, without guard grille according to ISO 5801

Inlet ring	00407900	Page 451
Connection diagram	1360-177X SW	Page 550
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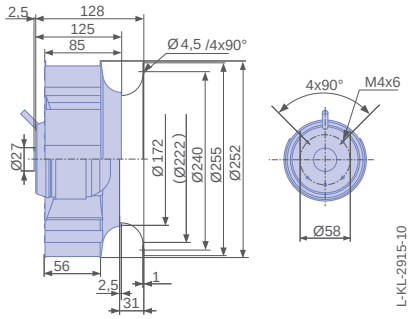
Dimensions [mm]

Free-running motor impeller RH
in installation position H/Vu/Vo



Performance data

Type	Characteristic curve	Voltage U [V]	Operating point	Current I [A]	Motor input power P_1 [W]	Speed n [min^{-1}]	Suction side sound power level L_{WA5} [dB]
RH25L-2EP.WD.1R	I	230	①	0.61	135	2770	
		230*	②	**0.94***	**210***	**2450***	71
		230	③	0.74	165	2660	80

*rated data

Fan ordering information

Design	RH*
Installation position	H/Vu/Vo
Electrical connection	Supply cable variable 45cm

Type	**RH25L-2EP.WD.1R**
Article no.	**113044**
Weight [kg]	3.07

* Inlet ring not included

Control technology

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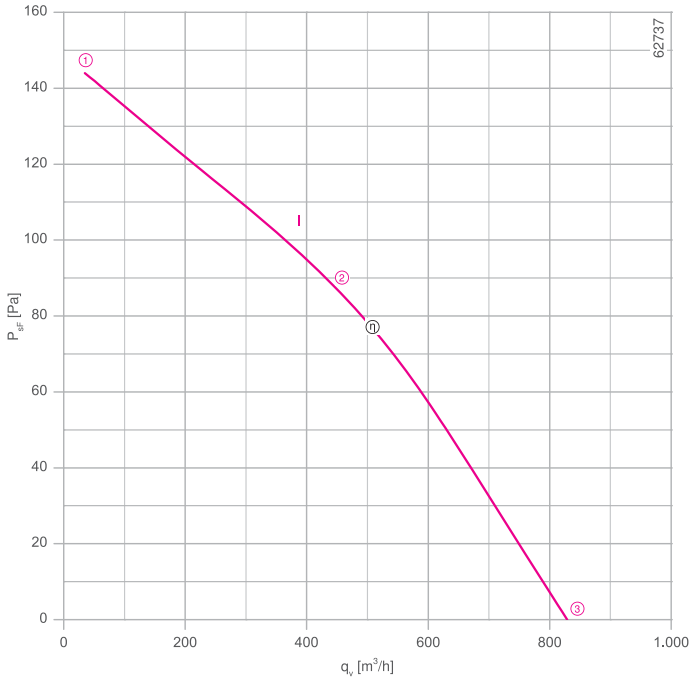
L-series

for single phase alternating current, 4 pole

R H 2 5 L - 4 E

Characteristic curve



measured with inlet ring, without guard grille according to ISO 5801

Description

Motor technology: AC
Rated voltage U_N: **1~ 230 V***
Rated frequency f_N: **50 Hz*** (60Hz data available)
Motor input power P_1: **0.05 kW***
Rated current I_N: **0.24 A***
Rated speed n_N: **1280 min^{-1}***
Current increase ΔI: 0 %
Service capacitor C_{400V}: 1.5 µF
Thermal class: **THCL155***
Min. permitted ambient temperature $t_{R(min)}$: -40 °C
Max. permitted ambient temperature $t_{R(max)}$: 70 °C
Motor protection: Thermal contact
Impeller : Galvanised sheet metal, uncoated
Conformity: CE
ErP-data
Not subject to ErP regulations (P_1< 125 W)
* Rated data

Inlet ring	00407900	Page 451
Connection diagram	1360-177X SW	Page 550
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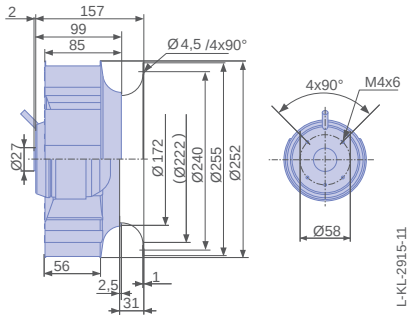
Dimensions [mm]

Free-running motor impeller RH
in installation position H/Vu/Vo



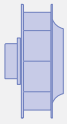
Performance data

Type	Characteristic curve	Voltage U [V]	Operating point	Current I [A]	Motor input power P_1 [W]	Speed n [min^{-1}]	Suction side sound power level L_{WA5} [dB]
RH25L-4EP.WA.1R	I	230	①	0.21	40	1400	
		230*	②	**0.24***	**50***	**1280***	55
		230	③	0.22	44	1360	68

*rated data

Fan ordering information

Design	RH*
Installation position	H/Vu/Vo
Electrical connection	Supply cable variable 45cm



Type	**RH25L-4EP.WA.1R**
Article no.	**113042**
Weight [kg]	2.22

* Inlet ring not included

Control technology

Frequency inverter Fcontrol 1~

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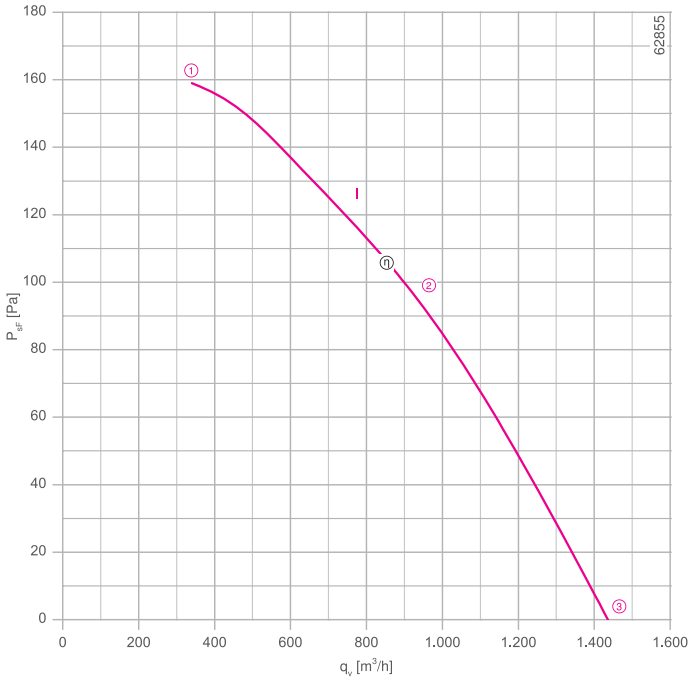
L-series

for single phase alternating current, 4 pole

R H 2 8 L - 4 E

Characteristic curve



measured with inlet ring, without guard grille according to ISO 5801

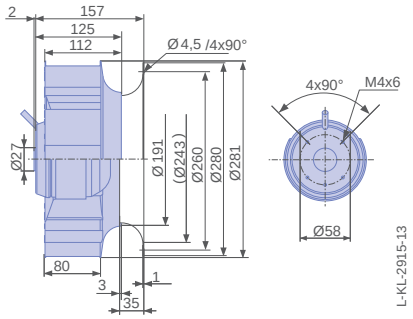
Description

Motor technology: AC
Rated voltage U_N: **1~ 230 V***
Rated frequency f_N: **50 Hz*** (60Hz data available)
Motor input power P_1: **0.09 kW***
Rated current I_N: **0.42 A***
Rated speed n_N: **1250 min^{-1}***
Current increase ΔI: 0 %
Service capacitor C_{400V}: 2.5 µF
Dynamic pressure: $p_{dz} = 9.4 \cdot 10^{-6} \cdot q_V^2$ [Pa]
Thermal class: **THCL155***
Min. permitted ambient temperature $t_{R(min)}$: -40 °C
Max. permitted ambient temperature $t_{R(max)}$: 45 °C
Motor protection: Thermal contact
Impeller : Galvanised sheet metal, uncoated
Conformity: CE
ErP-data
Not subject to ErP regulations (P_1< 125 W)
* Rated data

Inlet ring	00407901	Page 451
Connection diagram	1360-177X SW	Page 550
System components		Page 448

Dimensions [mm]

Free-running motor impeller RH
in installation position H/Vu/Vo



Performance data

Type	Characteristic curve	Voltage U [V]	Operating point	Current I [A]	Motor input power P_1 [W]	Speed n [min^{-1}]	Suction side sound power level L_{WA5} [dB]
RH28L-4EP.WC.2R	I	230	①	0.37	80	1320	
		230*	②	**0.42***	**90***	**1250***	62
		230	③	0.36	80	1340	68

*rated data

Fan ordering information

Design	RH*
Installation position	H/Vu/Vo
Electrical connection	Supply cable variable 45cm

Type	**RH28L-4EP.WC.2R**
Article no.	**113046**
Weight [kg]	2.92

* Inlet ring not included

Control technology

Frequency inverter Fcontrol 1~

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Motor protection units 1~

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Electronic voltage controllers 1~

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L-series

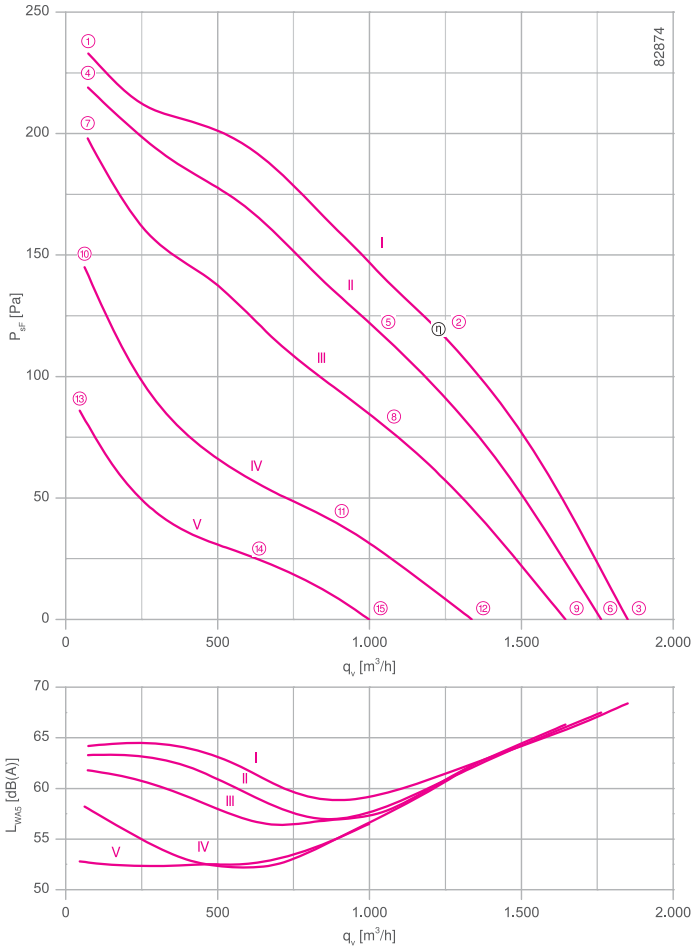
for single phase alternating current, 4 pole

R H 3 1 L - 4 E

Description

Motor technology: AC
Rated voltage U_N: **1~ 230 V***
Rated frequency f_N: **50 Hz*** (60Hz data available)
Motor input power P_1: **0.12 kW***
Rated current I_N: **0.55 A***
Rated speed n_N: **1250 min^{-1}***
Current increase ΔI: 0 %
Service capacitor C_{400V}: 5.0 µF
Thermal class: **THCL155***
Min. permitted ambient temperature $t_{R(min)}$: -40 °C
Max. permitted ambient temperature $t_{R(max)}$: 40 °C
Motor protection: Thermal contact
Impeller : Galvanised sheet metal, uncoated
Conformity: CE
ErP-data
Not subject to ErP regulations (P_1< 125 W)
* Rated data

Characteristic curve



measured with inlet ring, without guard grille according to ISO 5801

Inlet ring	00335943	Page 451
Connection diagram	1360-177X SW	Page 550
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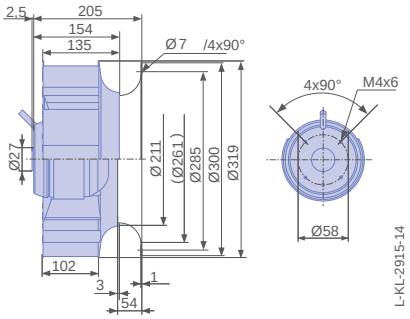
Dimensions [mm]

Free-running motor impeller RH
in installation position H/Vu/Vo



Performance data

Type	Characteristic curve	Voltage U [V]	Operating point	Current I [A]	Motor input power P_1 [W]	Speed n [min⁻¹]	Suction side sound power level L_{WA5} [dB]
RH31L-4EP.WD.1R	I	230	①	0.46	100	1360	64
		230*	②	**0.54***	**120***	**1250***	59
		230	③	0.48	100	1330	68
	II	200	④	0.40	80	1320	63
		200	⑤	0.52	100	1170	57
		200	⑥	0.44	85	1280	68
	III	170	⑦	0.39	65	1260	62
		170	⑧	0.50	85	1030	57
		170	⑨	0.42	75	1200	66
	IV	135	⑩	0.39	50	1080	58
		135	⑪	0.46	60	770	52
		135	⑫	0.42	55	980	62
	V	110	⑬	0.36	40	840	53
		110	⑭	0.39	42	590	52
		110	⑮	0.37	40	740	57

*rated data

Fan ordering information

Design	RH*
Installation position	H/Vu/Vo
Electrical connection	Supply cable variable 45cm

Type	**RH31L-4EP.WD.1R**
Article no.	**161617**
Weight [kg]	4.50

* Inlet ring not included

Control technology

Frequency inverter Fcontrol 1~

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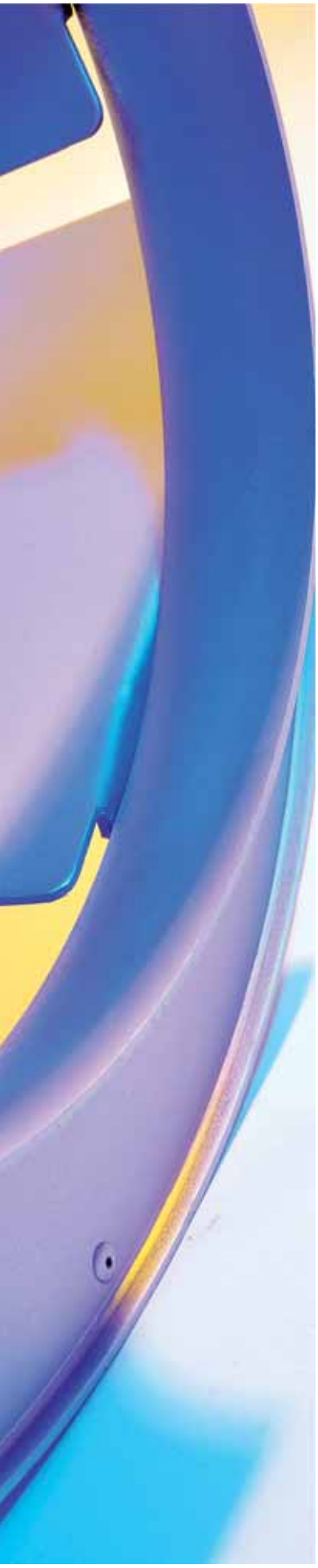


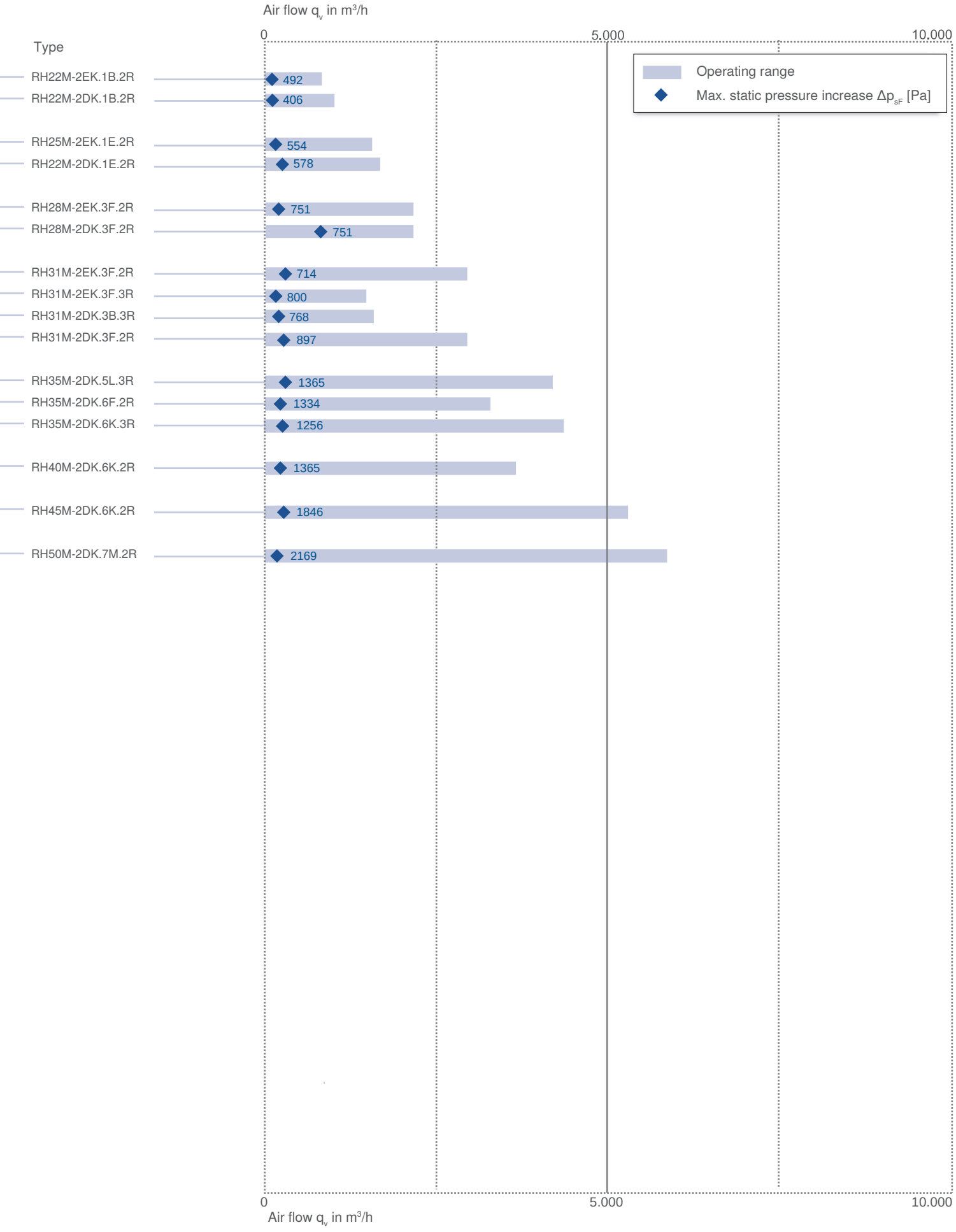
Centrifugal Fans M-series

AC technology

Product overview

Size	Voltage	Pole-count	Type	Impeller position	ErP	Page
225	1~ 230 V	2	RH22M-2EK.1B.2R	K	2013	416
	3~ 400 V	2	RH22M-2DK.1B.2R	K	**	418
250	1~ 230 V	2	RH25M-2EK.1E.2R	K	2013	420
	3~ 400 V	2	RH25M-2DK.1E.2R	K	2015	422
280	1~ 230 V	2	RH28M-2EK.3F.2R	K	-	424
	3~ 400 V	2	RH28M-2DK.3F.2R	K	2015	426
315	1~ 230 V	2	RH31M-2EK.3F.2R	K	-	428
		2	RH31M-2EK.3F.3R	K	-	430
	3~ 400 V	2	RH31M-2DK.3B.3R	K	-	432
		2	RH31M-2DK.3F.2R	K	2013	434
355	3~ 400 V	2	RH35M-2DK.5L.3R	K	-	436
		2	RH35M-2DK.6F.2R	K	-	438
		2	RH35M-2DK.6K.3R	K	-	440
400	3~ 400 V	2	RH40M-2DK.6K.2R	K	-	442
450	3~ 400 V	2	RH45M-2DK.6K.2R	K	-	444
500	3~ 400 V	2	RH50M-2DK.7M.2R	K	-	446

** Not subject to ErP regulation (P_1 < 125 W)

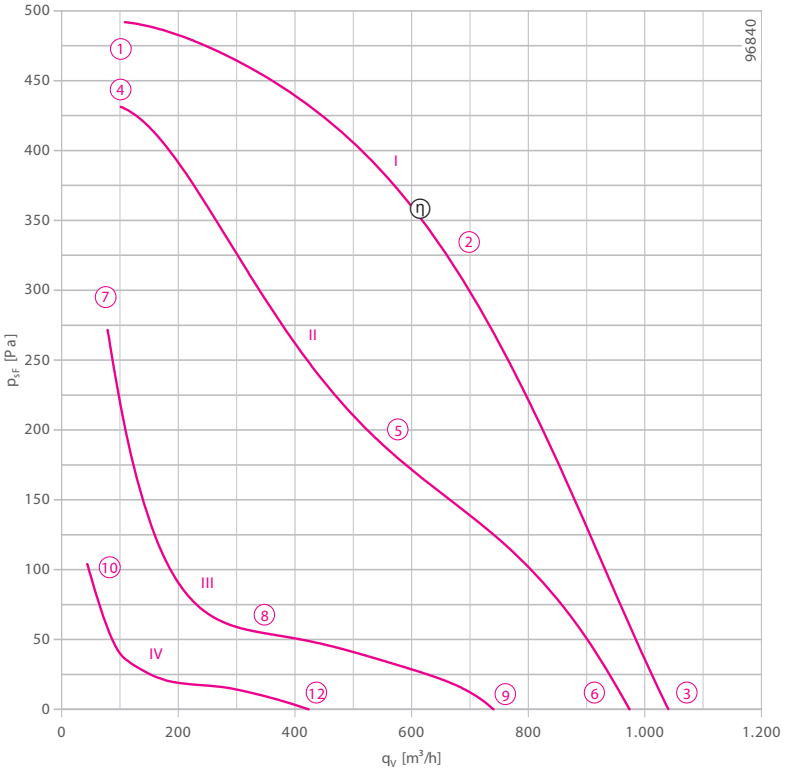

Air flow q_v in m³/h
0
5.000
10.000
Type
RH22M-2EK.1B.2R
RH22M-2DK.1B.2R
RH25M-2EK.1E.2R
RH22M-2DK.1E.2R
RH28M-2EK.3F.2R
RH28M-2DK.3F.2R
RH31M-2EK.3F.2R
RH31M-2EK.3F.3R
RH31M-2DK.3B.3R
RH31M-2DK.3F.2R
RH35M-2DK.5L.3R
RH35M-2DK.6F.2R
RH35M-2DK.6K.3R
RH40M-2DK.6K.2R
RH45M-2DK.6K.2R
RH50M-2DK.7M.2R
492
406
554
578
751
751
714
800
768
897
1365
1334
1256
1365
1846
2169
Operating range
Max. static pressure increase Δp_{sF} [Pa]
0
5.000
10.000
Air flow q_v in m³/h

M-series

for single phase alternating current, 2 pole

R H 2 2 M - 2 E

Characteristic curve



measured with inlet ring, without guard grille according to ISO 5801

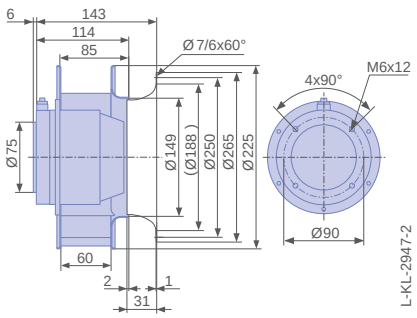
Description

Motor technology: AC
Rated voltage U_N: **1~ 230 V±10 %***
Rated frequency f_N: **50 Hz***
Motor input power P_1: **0.16 kW***
Rated current I_N: **0.68 A***
Rated speed n_N: **2750 min^{-1}***
Current increase ΔI: 35 %
Service capacitor C_{400V}: 7.0 µF
Dynamic pressure: $p_{d2} = 1.45 \cdot 10^{-5} \cdot q_V^2$ [Pa]
Thermal class: **THCL155***
Min. permitted ambient temperature $t_{R(min)}$: -25 °C
Max. permitted ambient temperature $t_{R(max)}$: 60 °C
Protection class: IP44
Motor protection: Thermal contact
Impeller : Aluminium, uncoated
Motor: 1 coat paint, pebble grey
Conformity: ErP 2013, CE
ErP-Daten
Efficiency η_{statA}: 39.6 %
Efficiency: N_{actual} = 58.6 / N_{target} = 58**
* Rated data
**ErP 2013

Inlet ring	00278352	Page 451
Connection diagram	1360-126XA	Page 550
System components		Page 448

Dimensions [mm]

Free-running motor impeller RH
in installation position H/Vu/Vo



Performance data

Type	Characteristic curve	Voltage U [V]	Operating point	Current I [A]	Motor input power P_1 [W]	Speed n [min^{-1}]	Suction side sound power level L_{WA5} [dB]
RH22M-2EK.1B.2R	I	230	①	0.48	110	2860	74
		230*	②	**0.68***	**160***	**2750***	69
		230	③	0.48	110	2860	77
	II	170	④	0.58	100	2690	72
		170	⑤	0.92	150	2170	63
		170	⑥	0.60	100	2680	76
	III	135	⑦	0.72	95	2160	66
		135	⑧	0.88	120	1220	52
		135	⑨	0.78	100	2040	69
	IV	110	⑩	0.72	75	1340	53
		110	⑫	0.72	75	1170	58

*rated data

Fan ordering information

Design	RH*
Installation position	H/Vu/Vo
Electrical connection	Supply cable lateral 105cm

Type	**RH22M-2EK.1B.2R**
Article no.	**161861**
Weight [kg]	3.20

* Inlet ring not included

Control technology

Frequency inverter Fcontrol 1~

Page 478

Motor protection units 1~

Page 526

Transformer-based controllers 1~

Page 517

Electronic voltage controllers 1~

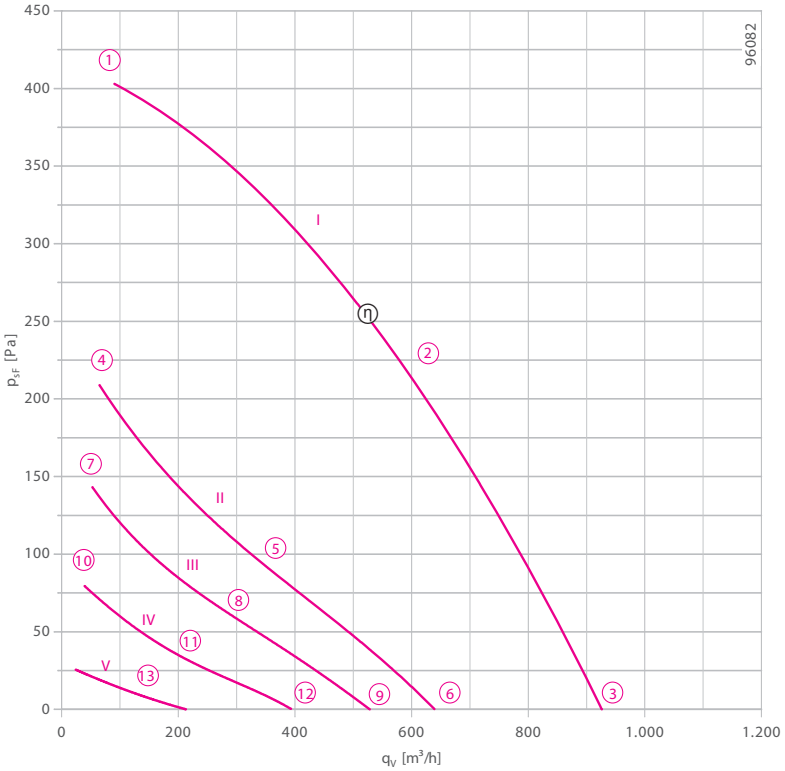
Page 492

M-series

for three phase alternating current, 2 pole

R H 2 2 M - 2 D

Characteristic curve



measured with inlet ring, without guard grille according to ISO 5801

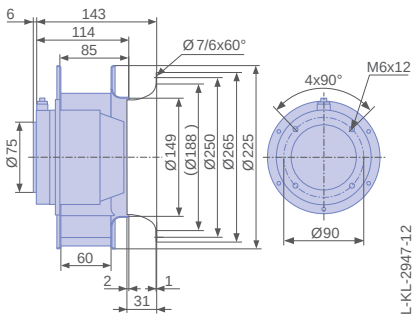
Description

Motor technology: AC
Rated voltage U_N: **3~ 400 V (Y) ±10 %***
Rated frequency f_N: **50 Hz*** (60Hz data available)
Motor input power P_1: **0.12 kW***
Rated current I_N: **0,185 A***
Rated speed n_N: **2290 min^{-1}***
Dynamic pressure: $p_{d2} = 2 \cdot 10^{-5} \cdot q_V^2$ [Pa]
Thermal class: **THCL155***
Min. permitted ambient temperature $t_{R(min)}$: -40 °C
Max. permitted ambient temperature $t_{R(max)}$: 60 °C
Protection class: IP44
Motor protection: Thermal contact
Impeller : Aluminium, uncoated
Motor: 1 coat paint, pebble grey
Conformity: CE
ErP-data
Not subject to ErP regulations (P_1< 125 W)
* Rated data

Inlet ring	00278352	Page 451
Connection diagram	1360-159XA SW	Page 550
System components		Page 448

Dimensions [mm]

Free-running motor impeller RH
in installation position H/Vu/Vo



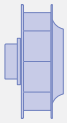
Performance data

Type	Characteristic curve	Voltage U [V]	Operating point	Current I [A]	Motor input power P_1 [W]	Speed n [min⁻¹]	Suction side sound power level L_{WA5} [dB]
RH22M-2DK.1B.2R	I	400	①	0.13	85	2550	71
		400*	②	**0.18***	**120***	**2300***	65
		400	③	0.14	90	2520	75
	II	230	④	0.14	55	1840	62
		230	⑤	0.17	60	1460	54
		230	⑥	0.15	55	1740	67
	III	190	⑦	0.13	40	1550	57
		190	⑧	0.15	46	1190	51
		190	⑨	0.14	42	1440	63
	IV	145	⑩	0.11	26	1160	50
		145	⑪	0.12	28	880	43
		145	⑫	0.12	28	1080	58
	V	95	⑬	0.08	13	530	35

*rated data

Fan ordering information

Design	RH*
Installation position	H/Vu/Vo
Electrical connection	Supply cable lateral 105cm



Type	**RH22M-2DK.1B.2R**
Article no.	**161510**
Weight [kg]	3.20

* Inlet ring not included

Control technology

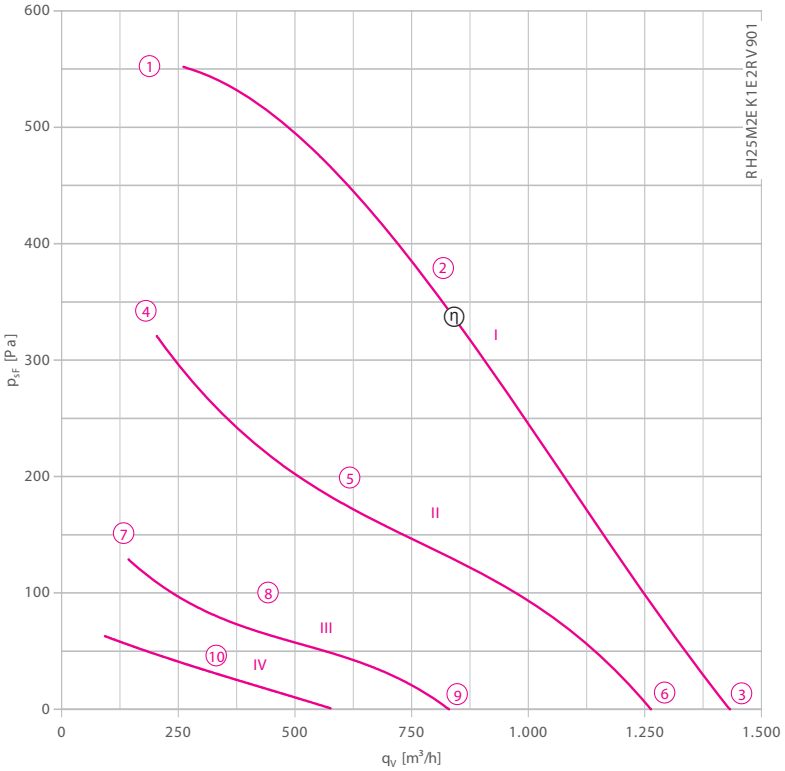
Frequency inverter Fcontrol 3~	Motor protection units 3~	Transformer-based controllers 3~	Electronic voltage controllers 3~
			
Page 484	Page 526	Page 521	Page 506

M-series

for single phase alternating current, 2 pole

R H 2 5 M - 2 E

Characteristic curve



measured with inlet ring, without guard grille according to ISO 5801

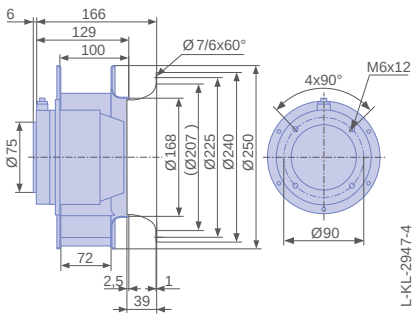
Description

Motor technology: AC
Rated voltage U_N: **1~ 230 V±10 %***
Rated frequency f_N: **50 Hz*** (60Hz data available)
Motor input power P_1: **0.24 kW***
Rated current I_N: **1.05 A***
Rated speed n_N: **2720 min^{-1}***
Service capacitor C_{400V}: 10.0 µF
Thermal class: **THCL155***
Min. permitted ambient temperature $t_{R(min)}$: -25 °C
Max. permitted ambient temperature $t_{R(max)}$: 60 °C
Protection class: IP44
Motor protection: Thermal contact
Impeller : Aluminium, uncoated
Motor: 1 coat paint, pebble grey
Conformity: ErP 2013, CE
ErP-Daten
Efficiency η_{statA}: 41.6 %
Efficiency: N_{actual} = 58.5 / N_{target} = 58**
* Rated data
**ErP 2013

Inlet ring	00275847	Page 451
Connection diagram	1360-126XA	Page 550
System components		Page 448

Dimensions [mm]

Free-running motor impeller RH
in installation position H/Vu/Vo



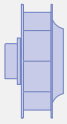
Performance data

Type	Characteristic curve	Voltage U [V]	Operating point	Current I [A]	Motor input power P_1 [W]	Speed n [min^{-1}]	Suction side sound power level L_{WA5} [dB]
RH25M-2EK.1E.2R	I	230	①	0.89	210	2790	
		230*	②	**1.05***	**240***	**2720***	81
		230	③	0.80	190	2820	86
	II	160	④	1.35	200	2140	
		160	⑤	1.45	220	1930	73
		160	⑥	1.15	175	2480	83
	III	130	⑦	1.25	155	1370	
		130	⑧	1.30	155	1240	63
		130	⑨	1.20	150	1710	74
	IV	105	⑩	1.10	105	900	

*rated data

Fan ordering information

Design	RH*
Installation position	H/Vu/Vo
Electrical connection	Supply cable lateral 105cm



Type	**RH25M-2EK.1E.2R**
Article no.	**111132**

Weight [kg]	4.20

* Inlet ring not included

Control technology

Frequency inverter Fcontrol 1~

Page 478

Motor protection units 1~

Page 526

Transformer-based controllers 1~

Page 517

Electronic voltage controllers 1~

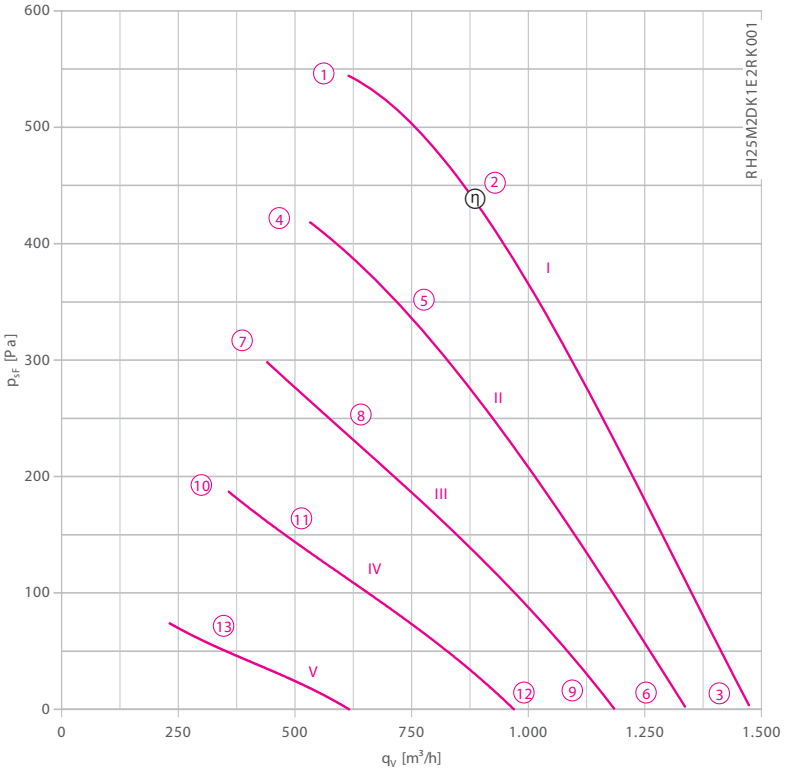
Page 492

M-series

for three phase alternating current, 2 pole

R H 2 5 M - 2 D

Characteristic curve



measured with inlet ring, without guard grille according to ISO 5801

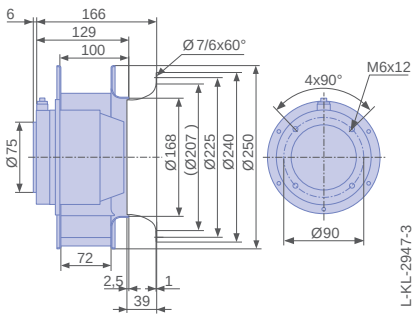
Description

Motor technology: AC
Rated voltage U_N: **3~ 400 V (Y) ±10 %***
Rated frequency f_N: **50 Hz*** (60Hz data available)
Motor input power P_1: **0.25 kW***
Rated current I_N: **0.48 A***
Rated speed n_N: **2820 min^{-1}***
Starting current I_A: 2.20 A
Current increase ΔI: 15 %
Dynamic pressure: $p_{d2} = 1.45 \cdot 10^{-5} \cdot q_V^2$ [Pa]
Thermal class: **THCL155***
Min. permitted ambient temperature $t_{R(min)}$: -40 °C
Max. permitted ambient temperature $t_{R(max)}$: 70 °C
Protection class: IP44
Motor protection: Thermal contact
Impeller : Aluminium, uncoated
Motor: 1 coat paint, pebble grey
Conformity: ErP 2015, CE
ErP-Daten
Efficiency η_{statA}: 45.2 %
Efficiency: N_{actual} = 62.0 / N_{target} = 62**
* Rated data
**ErP 2015

Inlet ring	00275847	Page 451
Connection diagram	1360-159XA SW	Page 550
System components		Page 448

Dimensions [mm]

Free-running motor impeller RH
in installation position H/Vu/Vo



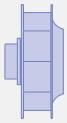
Performance data

Type	Characteristic curve	Voltage U [V]	Operating point	Current I [A]	Motor input power P_1 [W]	Speed n [min⁻¹]	Suction side sound power level L_{WA5} [dB]
RH25M-2DK.1E.2R	I	400	①	0.50	240	2830	
		400*	②	**0.48***	**250***	**2820***	82
		400	③	0.43	195	2860	86
	II	230	④	0.50	190	2470	
		230	⑤	0.52	200	2440	79
		230	⑥	0.41	160	2600	84
	III	180	⑦	0.54	160	2080	
		180	⑧	0.56	165	2030	75
		180	⑨	0.47	140	2290	81
	IV	140	⑩	0.53	120	1660	
		140	⑪	0.53	120	1610	69
		140	⑫	0.48	110	1880	79
	V	90	⑬	0.42	60	1020	

*rated data

Fan ordering information

Design	RH*
Installation position	H/Vu/Vo
Electrical connection	Supply cable lateral 105cm



Type	**RH25M-2DK.1E.2R**
Article no.	**111148**

Weight [kg]	4.20

* Inlet ring not included

Control technology

Frequency inverter Fcontrol 3~

Page 484

Motor protection units 3~

Page 526

Transformer-based controllers 3~

Page 521

Electronic voltage controllers 3~

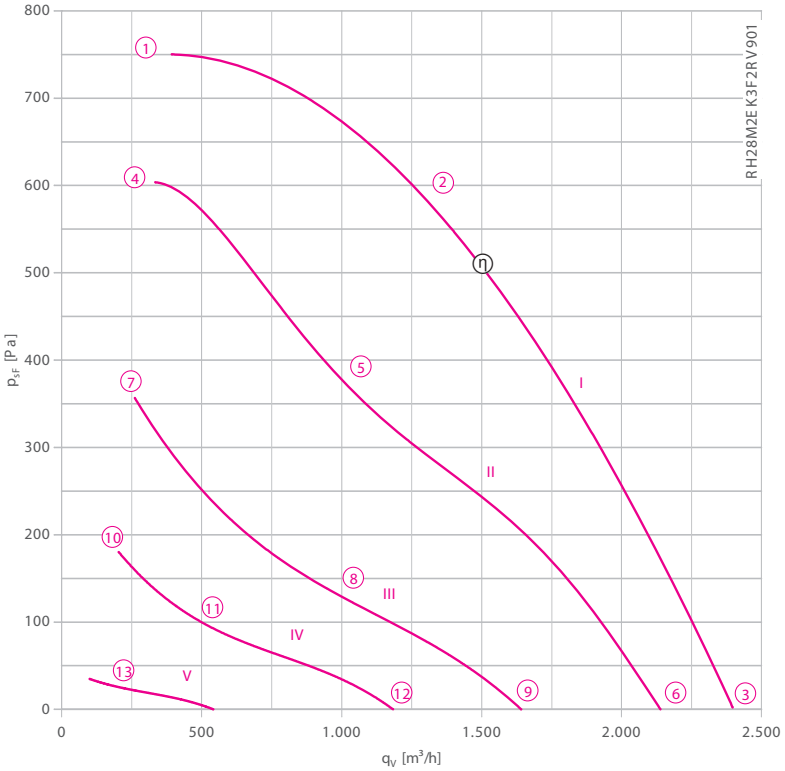
Page 506

M-series

for single phase alternating current, 2 pole

R H 2 8 M - 2 E

Characteristic curve



measured with inlet ring, without guard grille according to ISO 5801

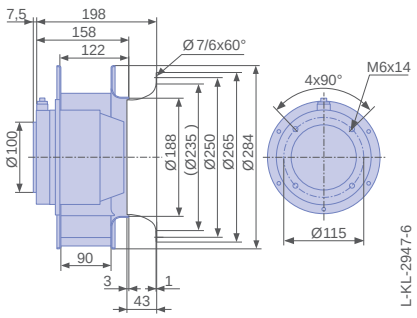
Description

Motor technology: AC
Rated voltage U_N: **1~ 230 V±10 %***
Rated frequency f_N: **50 Hz***
Motor input power P_1: **0.51 kW***
Rated current I_N: **2.20 A***
Rated speed n_N: **2720 min^{-1}***
Starting current I_A: 4.60 A
Service capacitor C_{400V}: 10.0 µF
Dynamic pressure: $p_{d2} = 6 \cdot 10^{-6} \cdot q_V^2$ [Pa]
Thermal class: **THCL155***
Min. permitted ambient temperature $t_{R(min)}$: -25 °C
Max. permitted ambient temperature $t_{R(max)}$: 60 °C
Protection class: IP10
Motor protection: Thermal contact
Impeller : Aluminium, uncoated
Motor: 1 coat paint, pebble grey
* Rated data

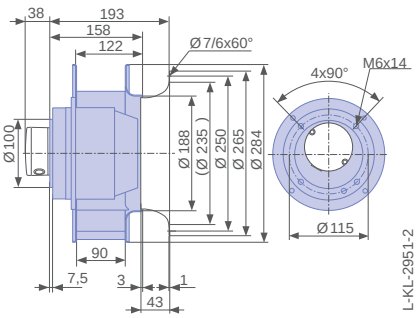
Inlet ring	00275848	Page 451
Connection diagram	1360-104XA SW	Page 549
System components		Page 448

Dimensions [mm]

Free-running motor impeller RH
in installation position H/Vu/Vo



Free-running motor impeller RH
in installation position H/Vu/Vo



Performance data

Type	Characteristic curve	Voltage U [V]	Operating point	Current I [A]	Motor input power P_1 [W]	Speed n [min^{-1}]	Suction side sound power level L_{WA5} [dB]
RH28M-2EK.3F.2R	I	230	①	1.70	410	2800	
		230*	②	**2.20***	**510***	**2720***	80
		230	③	1.80	420	2800	85
	II	160	④	2.10	350	2520	
		160	⑤	2.70	440	2140	74
		160	⑥	2.20	360	2500	82
	III	130	⑦	2.30	310	1960	
		130	⑧	2.60	340	1540	65
		130	⑨	2.30	300	1920	75
	IV	105	⑩	2.10	230	1400	
		105	⑪	2.20	230	1100	56
		105	⑫	2.10	220	1410	66
	V	60	⑬	1.30	77	530	

*rated data

Fan ordering information

Design	RH*	RH*
Installation position	H/Vu/Vo	H/Vu/Vo
Electrical connection	Supply cable lateral 105cm	Terminal box
		
Type	**RH28M-2EK.3F.2R**	**RH28M-2EK.3F.2R**
Article no.	**109326**	**121898**
Weight [kg]	7.10	7.10

* Inlet ring not included

Control technology

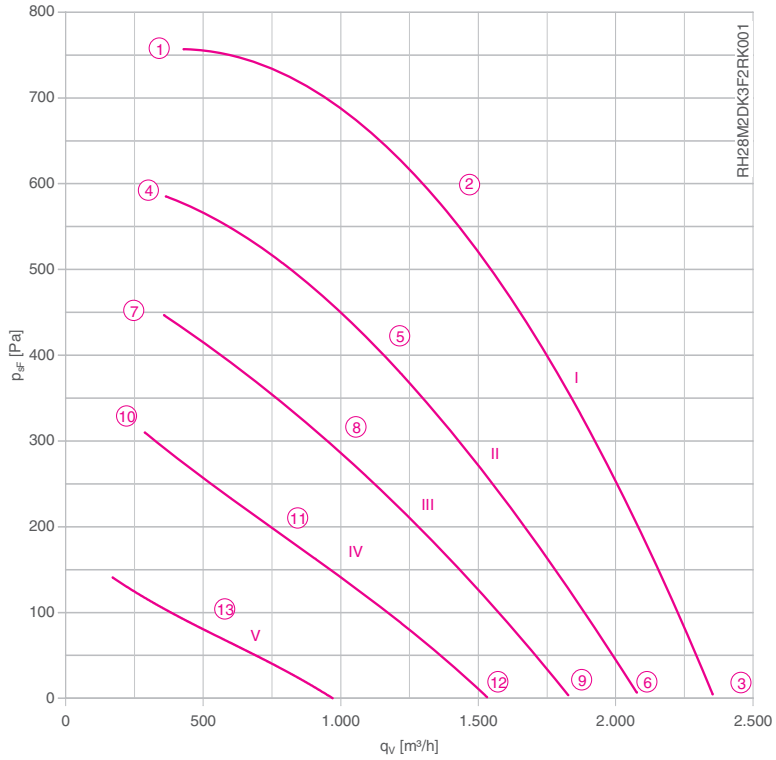
Frequency inverter Fcontrol 1~	Motor protection units 1~	Transformer-based controllers 1~	Electronic voltage controllers 1~
			
Page 478	Page 526	Page 517	Page 492

M-series

for three phase alternating current, 2 pole

R H 2 8 M - 2 D

Characteristic curve



measured with inlet ring, without guard grille according to ISO 5801

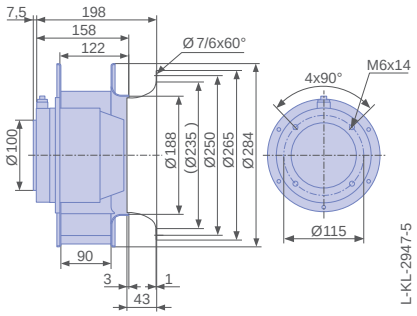
Description

Motor technology: AC
Rated voltage U_N: **3~ 230/400 V (Δ/Y) ±10 %***
Rated frequency f_N: **50 Hz*** (60Hz data available)
Motor input power P_1: **0.50 kW***
Rated current I_N: **1.50/0.88 A***
Rated speed n_N: **2780 min^{-1}***
Starting current I_A: 7.50 A / 4.40 A
Dynamic pressure: $p_{d2} = 7.7 \cdot 10^{-6} \cdot q_V^2$ [Pa]
Thermal class: **THCL155***
Min. permitted ambient temperature $t_{R(min)}$: -40 °C
Max. permitted ambient temperature $t_{R(max)}$: 50 °C
Protection class: IP54
Motor protection: Thermal contact
Impeller : Aluminium, uncoated
Motor: 1 coat paint, pebble grey
Conformity: ErP 2015, CE
ErP-Daten
Efficiency η_{statA}: 48.8 %
Efficiency: N_{actual} = 62.0 / N_{target} = 62**
* Rated data
**ErP 2015

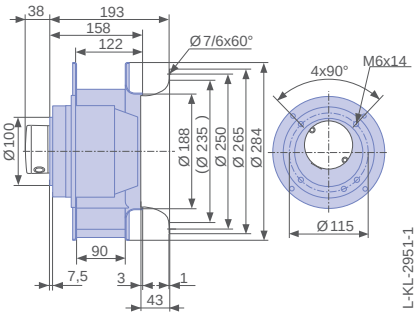
Inlet ring	00275848	Page 451
Connection diagram	1360-106XA SW	Page 549
System components		Page 448

Dimensions [mm]

Free-running motor impeller RH
in installation position H/Vu/Vo



Free-running motor impeller RH
in installation position H/Vu/Vo

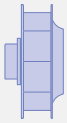
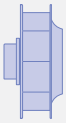


Performance data

Type	Characteristic curve	Voltage U [V]	Operating point	Current I [A]	Motor input power P_1 [W]	Speed n [min⁻¹]	Suction side sound power level L_{WA5} [dB]
RH28M-2DK.3F.2R	I	400	①	0.77	370	2830	
		400*	②	**0.88***	**500***	**2780***	80
		400	③	0.76	360	2830	84
	II	230	④	0.80	290	2510	
		230	⑤	1.00	360	2320	75
		230	⑥	0.80	290	2520	82
	III	180	⑦	0.88	250	2180	
		180	⑧	1.05	290	1970	70
		180	⑨	0.86	250	1830	78
	IV	140	⑩	0.86	185	1810	
		140	⑪	0.95	210	1590	65
		140	⑫	0.86	185	1850	74
	V	90	⑬	0.74	100	1060	

*rated data

Fan ordering information

Design	RH*	RH*
Installation position	H/Vu/Vo	H/Vu/Vo
Electrical connection	Supply cable lateral 105cm	Terminal box Mounted on stator.
		
Type	**RH28M-2DK.3F.2R**	**RH28M-2DK.3F.2R**
Article no.	**121864**	**122250**
Weight [kg]	7.10	7.10

* Inlet ring not included

Control technology

Frequency inverter Fcontrol 3~	Motor protection units 3~	Transformer-based controllers 3~	Electronic voltage controllers 3~
			
Page 484	Page 526	Page 521	Page 506

M-series

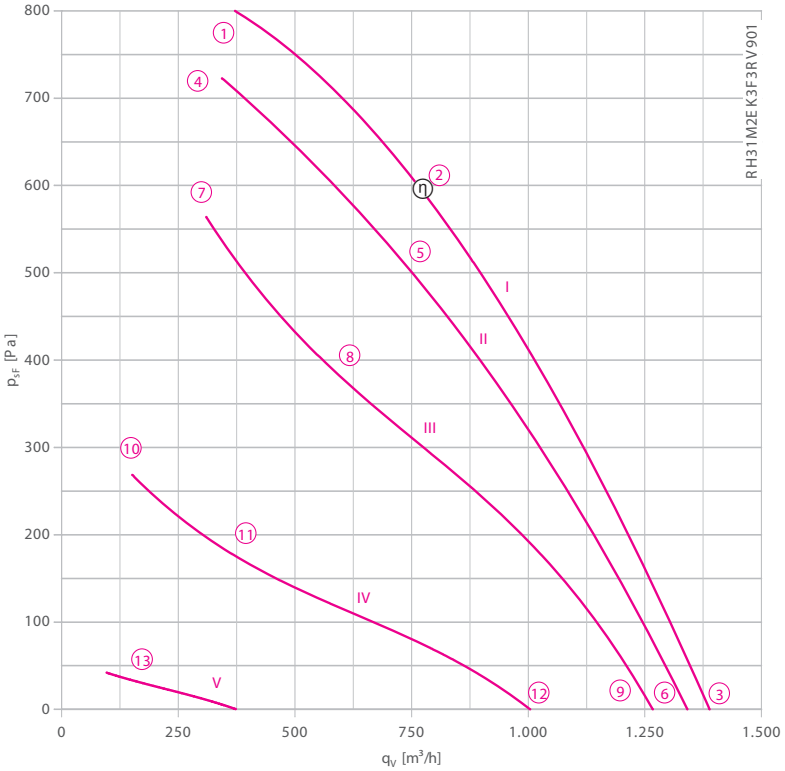
for single phase alternating current, 2 pole

R H 3 1 M - 2 E

Description

Motor technology: AC
Rated voltage U_N: **1~ 230 V±10 %***
Rated frequency f_N: **50 Hz***
Motor input power P_1: **0.36 kW***
Rated current I_N: **1.60 A***
Rated speed n_N: **2840 min^{-1}***
Service capacitor C_{400V}: 10.0 μF
Dynamic pressure: $p_{d2} = 5.4 \cdot 10^{-5} \cdot q_v^2$ [Pa]
Thermal class: **THCL155***
Min. permitted ambient temperature $t_{R(min)}$: -25 °C
Max. permitted ambient temperature $t_{R(max)}$: 40 °C
Protection class: IP54
Motor protection: Thermal contact
Impeller : Aluminium, uncoated
Motor: 1 coat paint, pebble grey
* Rated data

Characteristic curve

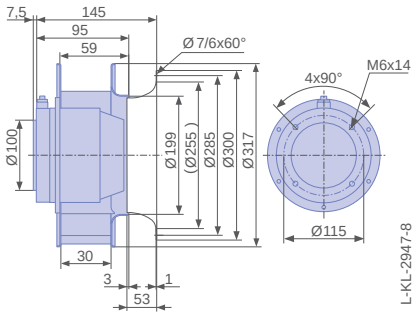


measured with inlet ring, without guard grille according to ISO 5801

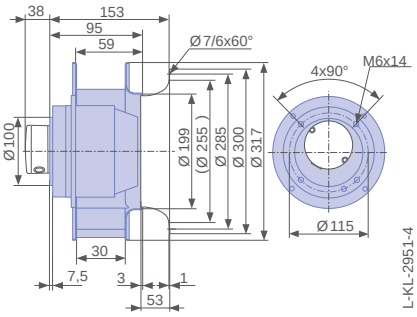
Inlet ring	00279152	Page 451
Connection diagram	1360-104XA SW	Page 549
System components		Page 448

Dimensions [mm]

Free-running motor impeller RH
in installation position H/Vu/Vo



Free-running motor impeller RH
in installation position H/Vu/Vo



Performance data

Type	Characteristic curve	Voltage U [V]	Operating point	Current I [A]	Motor input power P_1 [W]	Speed n [min^{-1}]	Suction side sound power level L_{WA5} [dB]
RH31M-2EK.3F.3R	I	230	①	1.40	340	2860	
		230*	②	**1.60***	**360***	**2840***	81
		230	③	1.20	290	2900	83
	II	160	④	1.80	280	2710	
		160	⑤	2.00	310	2670	80
		160	⑥	1.50	240	2800	82
	III	130	⑦	2.10	270	2380	
		130	⑧	2.30	300	2250	76
		130	⑨	1.70	210	2640	81
	IV	105	⑩	2.30	230	1640	
		105	⑪	2.30	230	1520	67
		105	⑫	2.00	200	2170	77
	V	60	⑬	1.40	80	650	

*rated data

Fan ordering information

Design	RH*	RH*
Installation position	H/Vu/Vo	H/Vu/Vo
Electrical connection	Supply cable lateral 105cm	Terminal box Mounted on stator.
		
Type	**RH31M-2EK.3F.3R**	**RH31M-2EK.3F.3R**
Article no.	**109973**	**121891**
Weight [kg]	7.00	7.00

* Inlet ring not included

Control technology

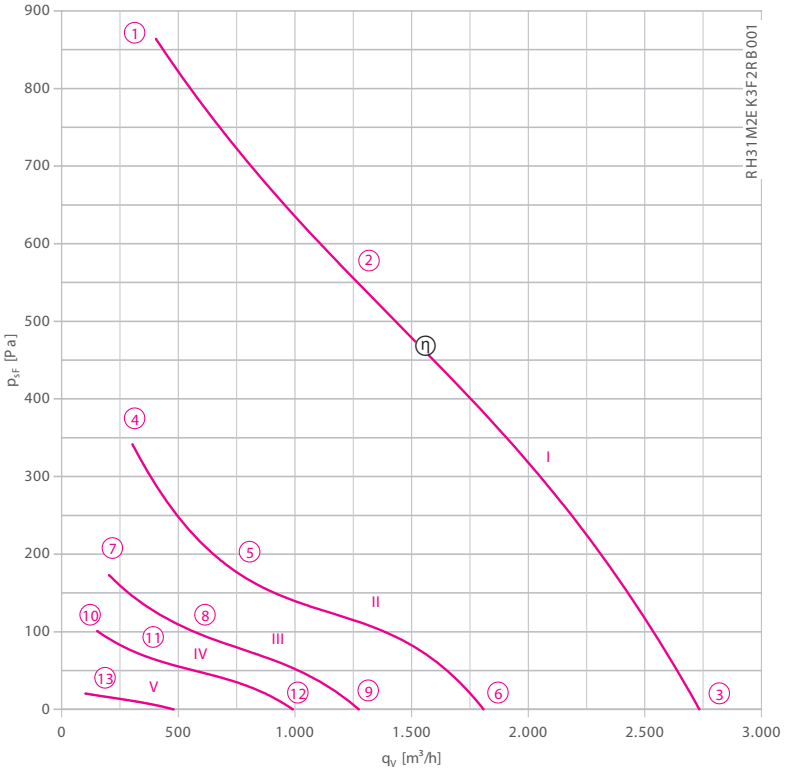
Frequency inverter Fcontrol 1~	Motor protection units 1~	Transformer-based controllers 1~	Electronic voltage controllers 1~
			
Page 478	Page 526	Page 517	Page 492

M-series

for single phase alternating current, 2 pole

R H 3 1 M - 2 E

Characteristic curve



measured with inlet ring, without guard grille according to ISO 5801

Description

Motor technology: AC
Rated voltage U_N: **1~ 230 V±10 %***
Rated frequency f_N: **50 Hz***
Motor input power P_1: **0.63 kW***
Rated current I_N: **2.80 A***
Rated speed n_N: **2470 min^{-1}***
Starting current I_A: 4.60 A
Service capacitor C_{400V}: 10.0 µF
Dynamic pressure: $p_{d2} = 1 \cdot 10^{-6} \cdot q_V^2$ [Pa]
Thermal class: **THCL155***
Min. permitted ambient temperature $t_{R(min)}$: -25 °C
Max. permitted ambient temperature $t_{R(max)}$: 40 °C
Protection class: IP10
Motor protection: Thermal contact
Impeller : Aluminium, uncoated
Motor: 1 coat paint, pebble grey
* Rated data

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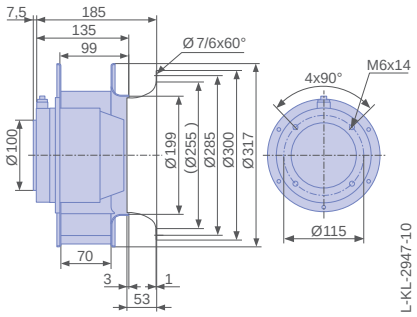
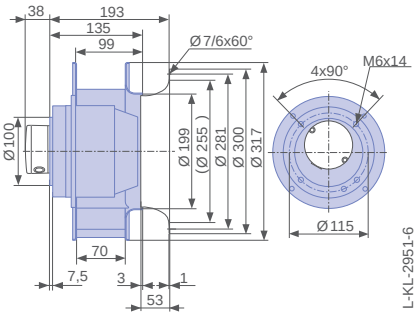
Connection diagram	1360-104XA SW	Page 549
System components		Page 448

Dimensions [mm]

Free-running motor impeller RH
in installation position H/Vu/Vo



Free-running motor impeller RH
in installation position H/Vu/Vo

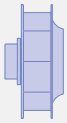
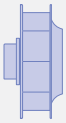


Performance data

Type	Characteristic curve	Voltage U [V]	Operating point	Current I [A]	Motor input power P_1 [W]	Speed n [min⁻¹]	Suction side sound power level L_{WA5} [dB]
RH31M-2EK.3F.2R	I	230	①	2.50	580	2500	
		230*	②	**2.80***	**630***	**2470***	80
		230	③	2.30	530	2670	89
	II	160	④	2.50	380	1540	
		160	⑤	2.50	390	1390	68
		160	⑥	2.40	380	1720	82
	III	130	⑦	2.10	260	1130	
		130	⑧	2.20	270	1150	68
		130	⑨	2.10	260	1210	77
	IV	105	⑩	1.80	170	880	
		105	⑪	1.80	180	820	57
		105	⑫	1.80	180	950	71
	V	60	⑬	1.00	58	420	

*rated data

Fan ordering information

Design	RH*	RH*
Installation position	H/Vu/Vo	H/Vu/Vo
Electrical connection	Supply cable lateral 105cm	Terminal box Mounted on stator.
		
Type	**RH31M-2EK.3F.2R**	**RH31M-2EK.3F.2R**
Article no.	**210742**	**121890**
Weight [kg]	7.20	7.10

* Inlet ring not included

Control technology

Frequency inverter Fcontrol 1~	Motor protection units 1~	Transformer-based controllers 1~	Electronic voltage controllers 1~
			
Page 478	Page 526	Page 517	Page 492

M-series

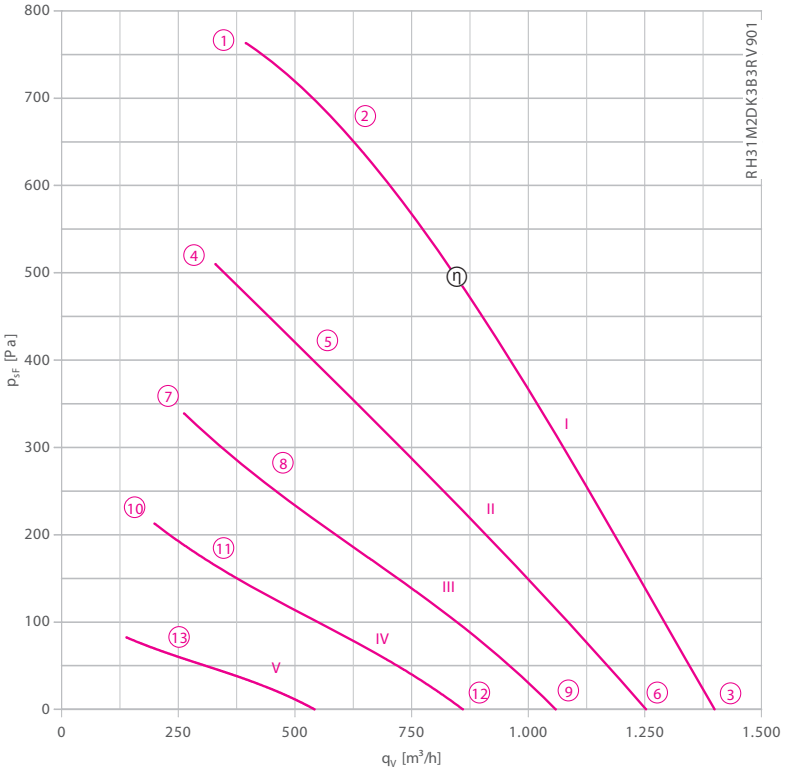
for three phase alternating current, 2 pole

R H 3 1 M - 2 D

Description

Motor technology: AC
Rated voltage U_N: **3~ 230/400 V (Δ/Y) ±10 %***
Rated frequency f_N: **50 Hz***
Motor input power P_1: **0.32 kW***
Rated current I_N: **0.95/0.55 A***
Rated speed n_N: **2700 min^{-1}***
Starting current I_A: 3.80 A / 2.20 A
Dynamic pressure: $p_{d2} = 5.4 \cdot 10^{-5} \cdot q_V^2$ [Pa]
Thermal class: **THCL155***
Min. permitted ambient temperature $t_{R(min)}$: -40 °C
Max. permitted ambient temperature $t_{R(max)}$: 55 °C
Protection class: IP54
Motor protection: Thermal contact
Impeller : Aluminium, uncoated
Motor: 1 coat paint, pebble grey
* Rated data

Characteristic curve



measured with inlet ring, without guard grille according to ISO 5801

Inlet ring	00279152	Page 451
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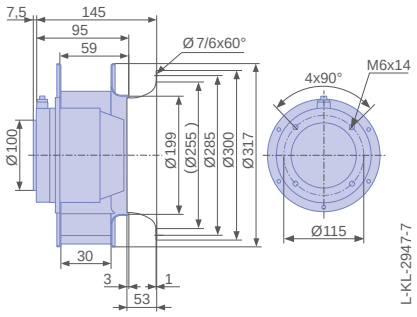
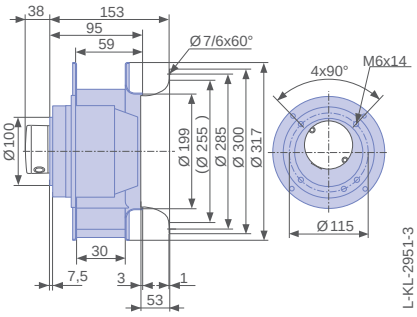
System components		Page 448

Dimensions [mm]

Free-running motor impeller RH
in installation position H/Vu/Vo



Free-running motor impeller RH
in installation position H/Vu/Vo



Performance data

Type	Characteristic curve	Voltage U [V]	Operating point	Current I [A]	Motor input power P_1 [W]	Speed n [min^{-1}]	Suction side sound power level L_{WA5} [dB]
RH31M-2DK.3B.3R	I	400	①	0.52	290	2740	
		400*	②	**0.55***	**320***	**2700***	80
		400	③	0.45	220	2820	82
	II	230	④	0.64	230	2230	
		230	⑤	0.67	240	2220	76
		230	⑥	0.49	175	2540	81
	III	180	⑦	0.64	180	1880	
		180	⑧	0.65	180	1810	71
		180	⑨	0.53	150	2210	77
	IV	140	⑩	0.57	125	1480	
		140	⑪	0.58	125	1440	66
		140	⑫	0.52	110	1770	72
	V	90	⑬	0.43	58	920	

*rated data

Fan ordering information

Design	RH*	RH*
Installation position	H/Vu/Vo	H/Vu/Vo
Electrical connection	Supply cable lateral 105cm	Terminal box Mounted on stator.
		
Type	**RH31M-2DK.3B.3R**	**RH31M-2DK.3B.3R**
Article no.	**121383**	**200875K**
Weight [kg]	5.40	5.40

* Inlet ring not included

Control technology

Frequency inverter Fcontrol 3~	Motor protection units 3~	Transformer-based controllers 3~	Electronic voltage controllers 3~
			
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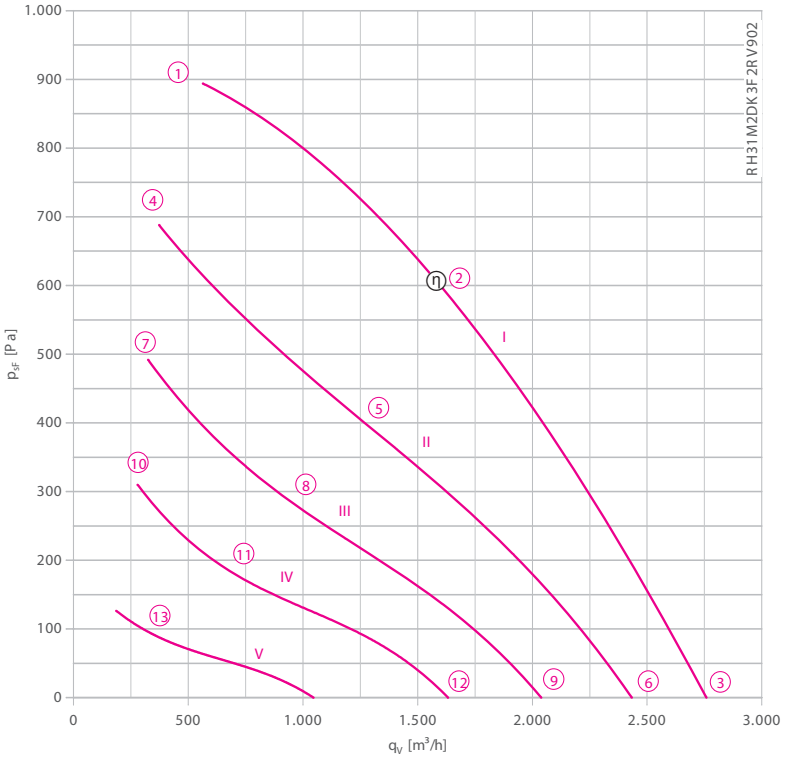
M-series

for three phase alternating current, 2 pole

R H 3 1 M - 2 D

Characteristic curve



measured with inlet ring, without guard grille according to ISO 5801

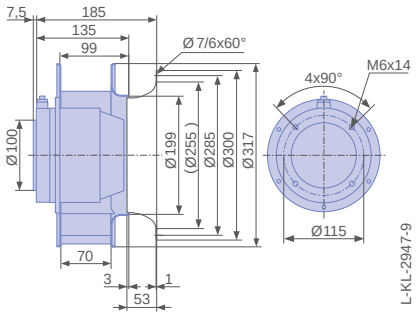
Description

Motor technology: AC
Rated voltage U_N: **3~ 230/400 V (Δ/Y) ±10 %***
Rated frequency f_N: **50 Hz***
Motor input power P_1: **0.62 kW***
Rated current I_N: **1.80/1.05 A***
Rated speed n_N: **2690 min^{-1}***
Starting current I_A: 7.50 A / 4.40 A
Current increase ΔI: 25 %
Dynamic pressure: $p_{d2} = 1 \cdot 10^{-6} \cdot q_V^2$ [Pa]
Thermal class: **THCL155***
Min. permitted ambient temperature $t_{R(min)}$: -40 °C
Max. permitted ambient temperature $t_{R(max)}$: 40 °C
Protection class: IP54
Motor protection: Thermal contact
Impeller : Aluminium, uncoated
Motor: 1 coat paint, pebble grey
Conformity: ErP 2013, CE
ErP-Daten
Efficiency η_{statA}: 44.8 %
Efficiency: N_{actual} = 58.0 / N_{target} = 58**
* Rated data
**ErP 2013

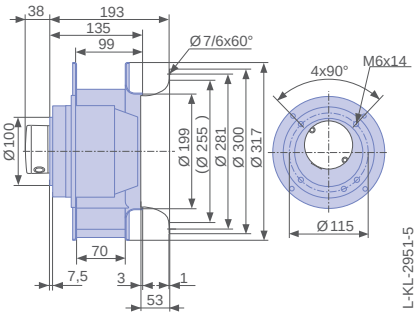
- Inlet ring 00279152 Page 451
- Connection diagram 1360-106XA SW Page 549
- System components Page 448

Dimensions [mm]

Free-running motor impeller RH
in installation position H/Vu/Vo



Free-running motor impeller RH
in installation position H/Vu/Vo

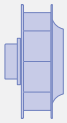
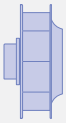


Performance data

Type	Characteristic curve	Voltage U [V]	Operating point	Current I [A]	Motor input power P_1 [W]	Speed n [min^{-1}]	Suction side sound power level L_{WA5} [dB]
RH31M-2DK.3F.2R	I	400	①	0.89	490	2760	
		400*	②	**1.05***	**620***	**2690***	86
		400	③	0.87	470	2780	91
	II	230	④	1.05	400	2390	
		230	⑤	1.30	500	2140	81
		230	⑥	1.05	410	2370	87
	III	180	⑦	1.10	330	2020	
		180	⑧	1.25	380	1760	76
		180	⑨	1.10	340	2010	83
	IV	140	⑩	1.05	240	1610	
		140	⑪	1.10	250	1380	71
		140	⑫	1.05	240	1610	79
	V	90	⑬	0.80	115	910	

*rated data

Fan ordering information

Design	RH*	RH*
Installation position	H/Vu/Vo	H/Vu/Vo
Electrical connection	Supply cable lateral 105cm	Terminal box Mounted on stator.
		
Type	**RH31M-2DK.3F.2R**	**RH31M-2DK.3F.2R**
Article no.	**209227**	**208617K**
Weight [kg]	7.20	7.20

* Inlet ring not included

Control technology

Frequency inverter Fcontrol 3~	Motor protection units 3~	Transformer-based controllers 3~	Electronic voltage controllers 3~
			
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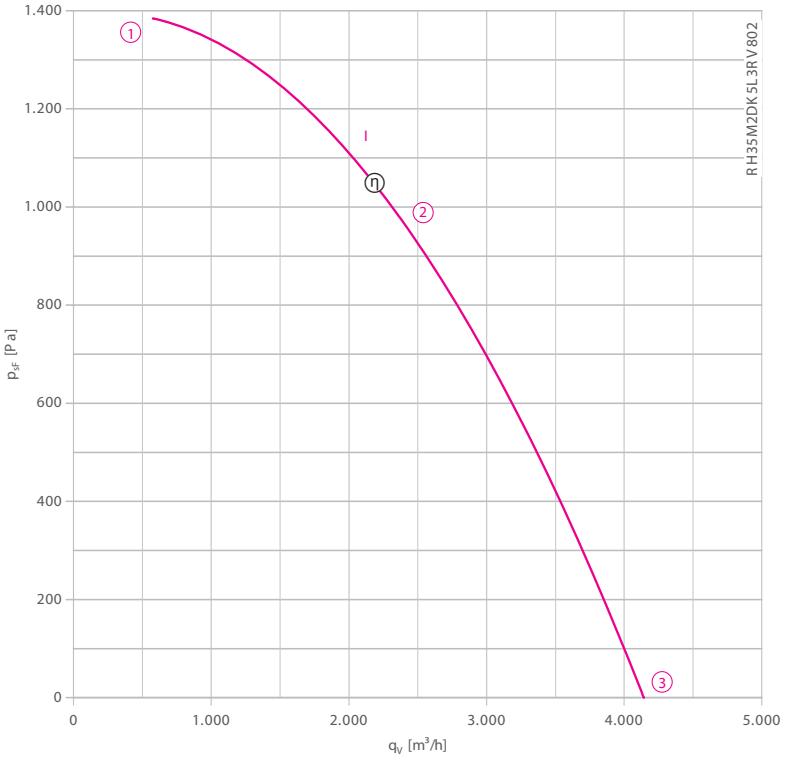
M-series

for three phase alternating current, 2 pole

R H 3 5 M - 2 D

Characteristic curve



measured with inlet ring, without guard grille according to ISO 5801
not voltage controllable

Description

Motor technology: AC
Rated voltage U_N: **3~ 230/400 V (Δ/Y) ±10 %***
Rated frequency f_N: **50 Hz***
Motor input power P_1: **1.65 kW***
Rated current I_N: **4.70/2.70 A***
Rated speed n_N: **2810 min^{-1}***
Dynamic pressure: $p_{d2} = 3.6 \cdot 10^{-6} \cdot q_V^2$ [Pa]
Thermal class: **THCL155***
Min. permitted ambient temperature $t_{R(min)}$: -40 °C
Max. permitted ambient temperature $t_{R(max)}$: 65 °C
Protection class: IP54
Motor protection: Thermal contact
Impeller : Aluminium, uncoated
Motor: 1 coat paint, pebble grey
* Rated data

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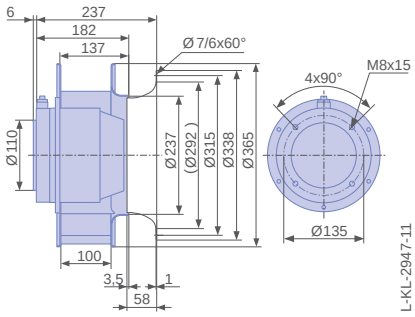
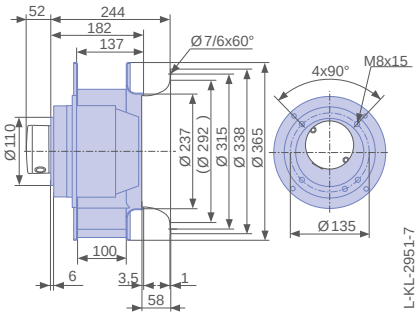
Dimensions [mm]

Free-running motor impeller RH
in installation position H/Vu/Vo



Free-running motor impeller RH
in installation position H/Vu/Vo



Performance data

Type	Characteristic curve	Voltage U [V]	Operating point	Current I [A]	Motor input power P_1 [W]	Speed n [min^{-1}]	Suction side sound power level L_{WA5} [dB]
RH35M-2DK.5L.3R	I	400	①	2.00	1150	2870	
		400*	②	**2.70***	**1650***	**2810***	88
		400	③	2.30	1350	2850	95

*rated data

Fan ordering information

Design	RH*	RH*
Installation position	H/Vu/Vo	H/Vu/Vo
Electrical connection	Supply cable lateral 105cm	Terminal box Mounted on motor.
		
Type	**RH35M-2DK.5L.3R**	**RH35M-2DK.5L.3R**
Article no.	**126193**	**126197**
Weight [kg]	15.50	15.50

* Inlet ring not included

Control technology

Frequency inverter Fcontrol 3~	Motor protection units 3~	Transformer-based controllers 3~	Electronic voltage controllers 3~
			
Page 484	Page 526	Page 521	Page 506

M-series

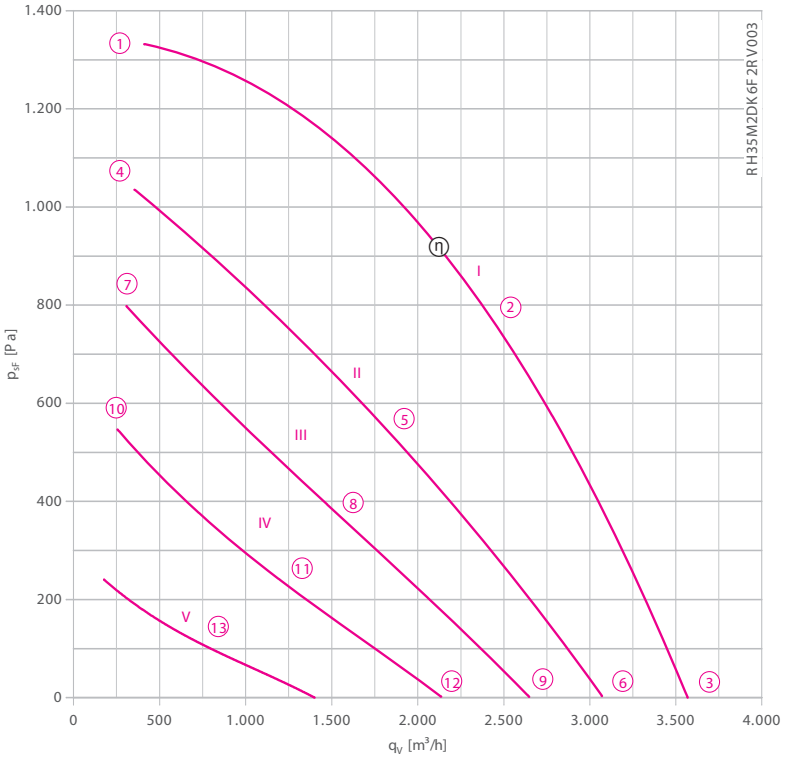
for three phase alternating current, 2 pole

R H 3 5 M - 2 D

Description

Motor technology: AC
Rated voltage U_N: **3~ 230/400 V (Δ/Y) ±10 %***
Rated frequency f_N: **50 Hz***
Motor input power P_1: **1.40 kW***
Rated current I_N: **4.70/2.70 A***
Rated speed n_N: **2730 min^{-1}***
Current increase ΔI: 0 %
Dynamic pressure: $p_{d2} = 6.1 \cdot 10^{-5} \cdot q_V^2$ [Pa]
Thermal class: **THCL155***
Min. permitted ambient temperature $t_{R(min)}$: -40 °C
Max. permitted ambient temperature $t_{R(max)}$: 60 °C
Protection class: IP54
Motor protection: Thermal contact
Impeller : Aluminium, uncoated
Motor: 1 coat paint, pebble grey
* Rated data

Characteristic curve

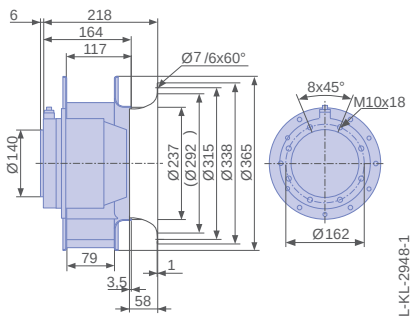


measured with inlet ring, without guard grille according to ISO 5801
not voltage controllable

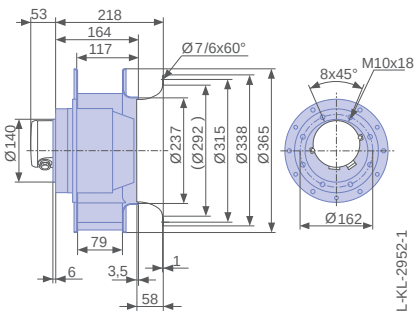
Inlet ring	00275850	Page 453
Connection diagram	1360-106XA SW	Page 549
System components		Page 448

Dimensions [mm]

Free-running motor impeller RH
in installation position H/Vu/Vo



Free-running motor impeller RH
in installation position H/Vu/Vo

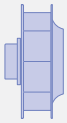
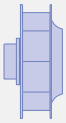


Performance data

Type	Characteristic curve	Voltage U [V]	Operating point	Current I [A]	Motor input power P_1 [W]	Speed n [min⁻¹]	Suction side sound power level L_{WA5} [dB]
RH35M-2DK.6F.2R	I	400	①	2.10	910	2840	
		400*	②	**2.70***	**1400***	**2730***	87
		400	③	2.30	1080	2810	97
	II	230	④	1.90	670	2520	
		230	⑤	2.70	910	2200	81
		230	⑥	2.20	760	2410	90
	III	180	⑦	2.00	540	2220	
		180	⑧	2.60	670	1840	77
		180	⑨	2.30	600	2800	94
	IV	140	⑩	2.00	400	1840	
		140	⑪	2.30	450	1470	70
		140	⑫	2.10	420	1700	81
	V	90	⑬	1.65	500	960	

*rated data

Fan ordering information

Design	RH*	RH*
Installation position	H/Vu/Vo	H/Vu/Vo
Electrical connection	Supply cable lateral 105cm	Terminal box Mounted on motor.
		
Type	**RH35M-2DK.6F.2R**	**RH35M-2DK.6F.2R**
Article no.	**121388**	**121869**
Weight [kg]	14.10	14.10

* Inlet ring not included

Control technology

Frequency inverter Fcontrol 3~	Motor protection units 3~	Transformer-based controllers 3~	Electronic voltage controllers 3~
			
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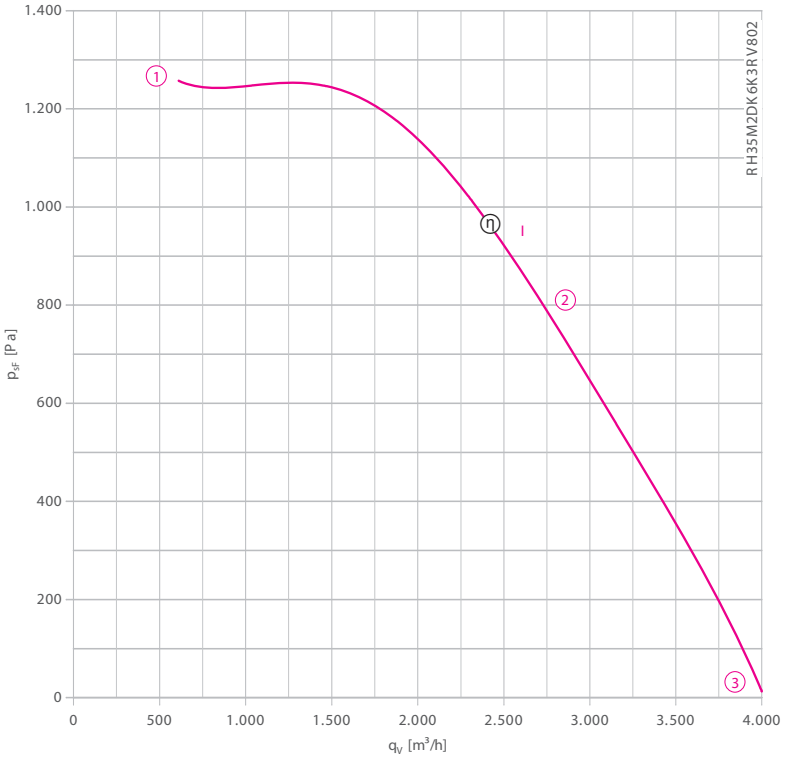
M-series

for three phase alternating current, 2 pole

R H 3 5 M - 2 D

Characteristic curve



measured with inlet ring, without guard grille according to ISO 5801

Description

Motor technology: AC
Rated voltage U_N: **3~ 230/400 V (Δ/Y) ±10 %***
Rated frequency f_N: **50 Hz***
Motor input power P_1: **1.55 kW***
Rated current I_N: **4.80/2.70 A***
Rated speed n_N: **2880 min^{-1}***
Dynamic pressure: $p_{d2} = 3.6 \cdot 10^{-6} \cdot q_V^2$ [Pa]
Thermal class: **THCL155***
Min. permitted ambient temperature $t_{R(min)}$: -40 °C
Max. permitted ambient temperature $t_{R(max)}$: 80 °C
Protection class: IP54
Motor protection: Thermal contact
Impeller : Aluminium, uncoated
Motor: 1 coat paint, pebble grey
* Rated data

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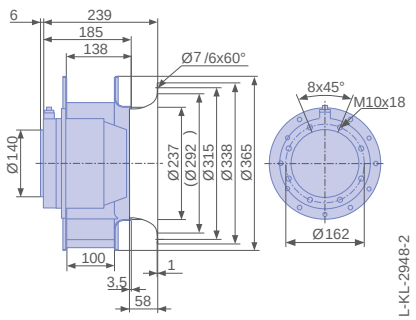
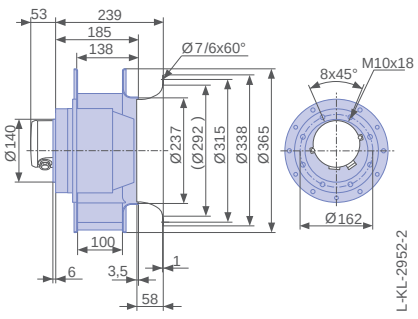
Dimensions [mm]

Free-running motor impeller RH
in installation position H/Vu/Vo



Free-running motor impeller RH
in installation position H/Vu/Vo



Performance data

Type	Characteristic curve	Voltage U [V]	Operating point	Current I [A]	Motor input power P_1 [W]	Speed n [min^{-1}]	Suction side sound power level L_{WA5} [dB]
RH35M-2DK.6K.3R	I	400	①	2.20	1200	2920	
		400*	②	**2.70***	**1550***	**2880***	95
		400	③	2.50	1400	2900	99

*rated data

Fan ordering information

Design	RH*	RH*
Installation position	H/Vu/Vo	H/Vo
Electrical connection	Supply cable lateral 105cm	Terminal box Mounted on motor.
		
Type	**RH35M-2DK.6K.3R**	**RH35M-2DK.6K.3R**
Article no.	**121389**	**109391**
Weight [kg]	17.90	17.90

* Inlet ring not included

Control technology

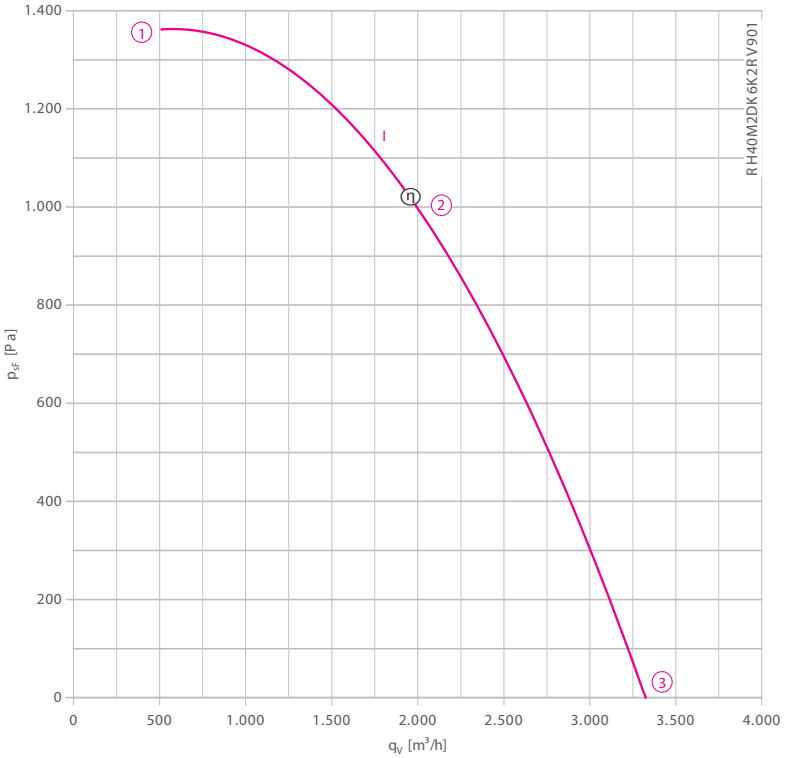
Frequency inverter Fcontrol 3~	Motor protection units 3~	Transformer-based controllers 3~	Electronic voltage controllers 3~
			
Page 484	Page 526	Page 521	Page 506

M-series

for three phase alternating current, 2 pole

R H 4 0 M - 2 D

Characteristic curve



measured with inlet ring, without guard grille according to ISO 5801
not voltage controllable

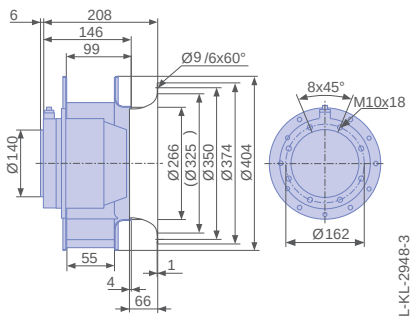
Description

Motor technology: AC
Rated voltage U_N: **3~ 230/400 V (Δ/Y) ±10 %***
Rated frequency f_N: **50 Hz***
Motor input power P_1: **1.45 kW***
Rated current I_N: **4.50/2.60 A***
Rated speed n_N: **2900 min^{-1}***
Dynamic pressure: $p_{d2} = 9.3 \cdot 10^{-5} \cdot q_V^2$ [Pa]
Thermal class: **THCL155***
Min. permitted ambient temperature $t_{R(min)}$: -20 °C
Max. permitted ambient temperature $t_{R(max)}$: 50 °C
Protection class: IP54
Motor protection: Thermal contact
Impeller : uncoated
Motor: 1 coat paint, pebble grey
* Rated data

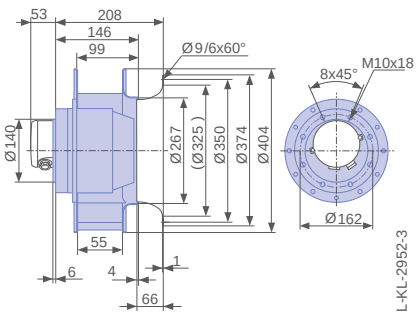
- Inlet ring 00275570 Page 451
- Connection diagram 1360-106XA SW Page 549
- System components Page 448

Dimensions [mm]

Free-running motor impeller RH
in installation position H/Vu/Vo



Free-running motor impeller RH
in installation position H/Vu/Vo



Performance data

Type	Characteristic curve	Voltage U [V]	Operating point	Current I [A]	Motor input power P_1 [W]	Speed n [min^{-1}]	Suction side sound power level L_{WA5} [dB]
RH40M-2DK.6K.2R	I	400	①	2.00	1180	2950	
		400*	②	**2.60***	**1450***	**2900***	86
		400	③	2.20	1050	2940	90

*rated data

Fan ordering information

Design	RH*	RH*
Installation position	H/Vu/Vo	H/Vu/Vo
Electrical connection	Supply cable lateral 105cm	Terminal box Mounted on motor.
		
Type	**RH40M-2DK.6K.2R**	**RH40M-2DK.6K.2R**
Article no.	**122255**	**111176**
Weight [kg]	20.90	20.90

* Inlet ring not included

Control technology

Frequency inverter Fcontrol 3~	Motor protection units 3~	Transformer-based controllers 3~	Electronic voltage controllers 3~
			
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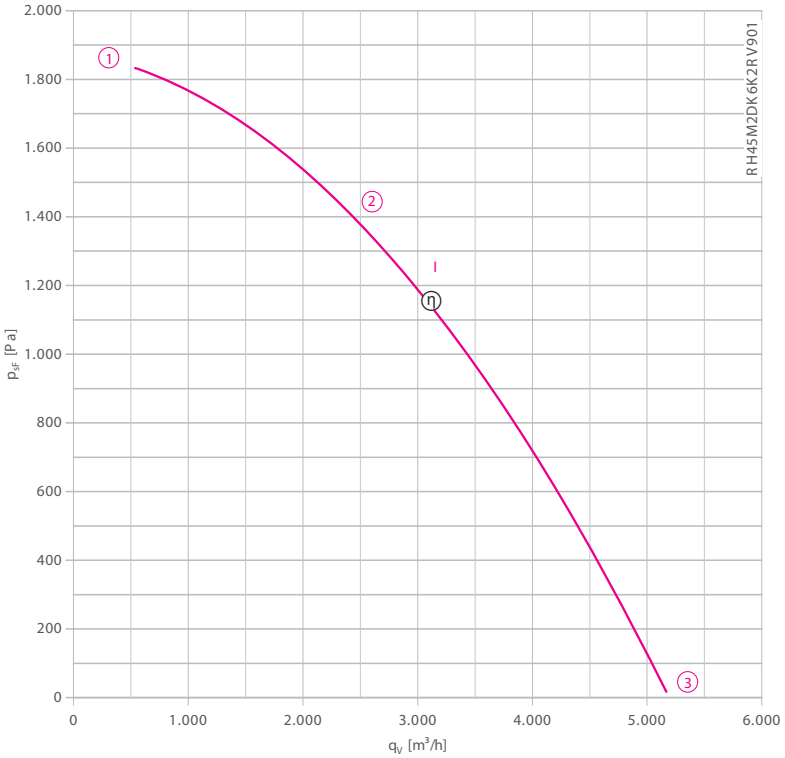
M-series

for three phase alternating current, 2 pole

R H 4 5 M - 2 D

Characteristic curve



measured with inlet ring, without guard grille according to ISO 5801
not voltage controllable

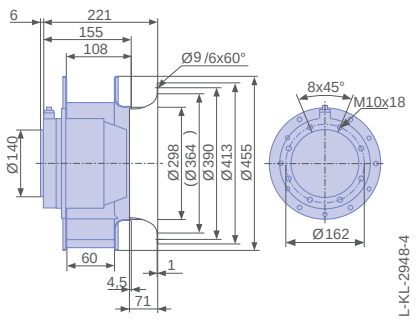
Description

Motor technology: AC
Rated voltage U_N: **3~ 230/400 V (Δ/Y) ±10 %***
Rated frequency f_N: **50 Hz***
Motor input power P_1: **2.50 kW***
Rated current I_N: **6.90/4.00 A***
Rated speed n_N: **2810 min^{-1}***
Dynamic pressure: $p_{d2} = 6.3 \cdot 10^{-6} \cdot q_V^2$ [Pa]
Thermal class: **THCL155***
Min. permitted ambient temperature $t_{R(min)}$: -20 °C
Max. permitted ambient temperature $t_{R(max)}$: 65 °C
Protection class: IP54
Motor protection: Thermal contact
Impeller : uncoated
Motor: 1 coat paint, pebble grey
* Rated data

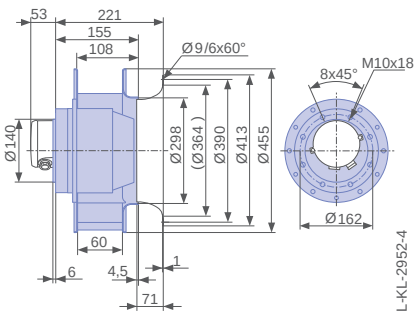
Inlet ring	00275571	Page 451
Connection diagram	1360-106XA SW	Page 549
System components		Page 448

Dimensions [mm]

Free-running motor impeller RH
in installation position H/Vu/Vo



Free-running motor impeller RH
in installation position H/Vu/Vo



Performance data

Type	Characteristic curve	Voltage U [V]	Operating point	Current I [A]	Motor input power P_1 [W]	Speed n [min^{-1}]	Suction side sound power level L_{WA5} [dB]
RH45M-2DK.6K.2R	I	400	①	3.30	2000	2850	
		400*	②	**4.00***	**2500***	**2810***	91
		400	③	2.70	1500	2900	95

*rated data

Fan ordering information

Design	RH*	RH*
Installation position	H/Vu/Vo	H/Vu/Vo
Electrical connection	Supply cable lateral 105cm	Terminal box Mounted on motor.
		
Type	**RH45M-2DK.6K.2R**	**RH45M-2DK.6K.2R**
Article no.	**122256**	**206302**
Weight [kg]	22.30	22.30

* Inlet ring not included

Control technology

Frequency inverter Fcontrol 3~	Motor protection units 3~	Transformer-based controllers 3~	Electronic voltage controllers 3~
			
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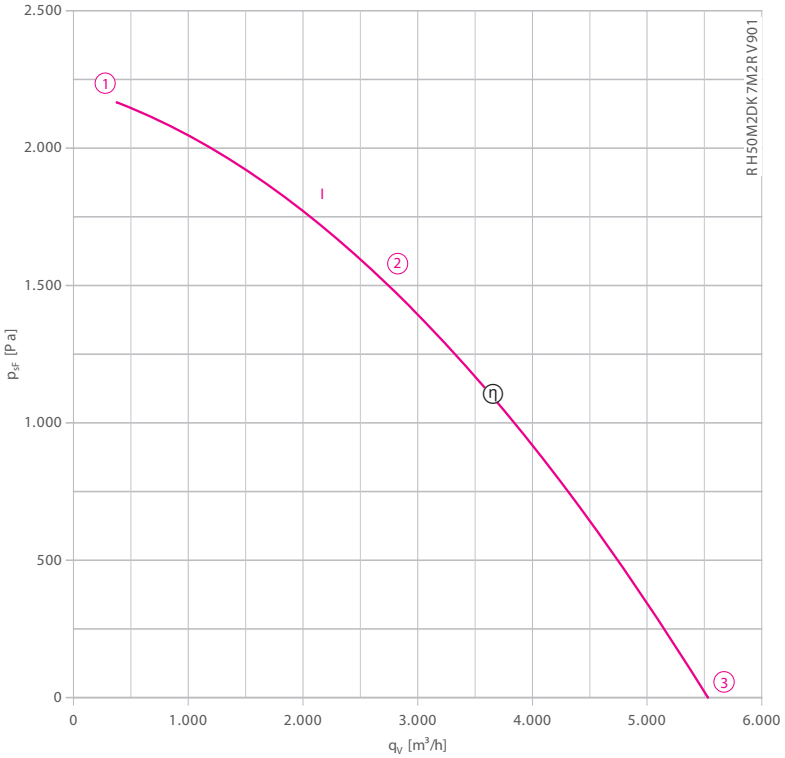
M-series

for three phase alternating current, 2 pole

R H 5 0 M - 2 D

Characteristic curve



measured with inlet ring, without guard grille according to ISO 5801
not voltage controllable

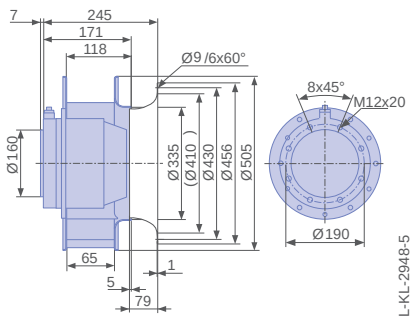
Description

Motor technology: AC
Rated voltage U_N: **3~ 230/400 V (Δ/Y) ±10 %***
Rated frequency f_N: **50 Hz***
Motor input power P_1: **2.90 kW***
Rated current I_N: **8.30/4.80 A***
Rated speed n_N: **2750 min^{-1}***
Dynamic pressure: $p_{d2} = 4.7 \cdot 10^{-5} \cdot q_V^2$ [Pa]
Thermal class: **THCL155***
Min. permitted ambient temperature $t_{R(min)}$: -20 °C
Max. permitted ambient temperature $t_{R(max)}$: 60 °C
Protection class: IP54
Motor protection: Thermal contact
Impeller : uncoated
Motor: 1 coat paint, pebble grey
* Rated data

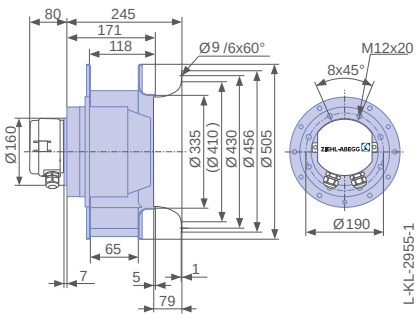
Inlet ring	00275572	Page 451
Connection diagram	1360-106XA SW	Page 549
System components		Page 448

Dimensions [mm]

Free-running motor impeller RH
in installation position H/Vu/Vo



Free-running motor impeller RH
in installation position H/Vu/Vo

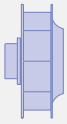
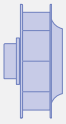


Performance data

Type	Characteristic curve	Voltage U [V]	Operating point	Current I [A]	Motor input power P_1 [W]	Speed n [min^{-1}]	Suction side sound power level L_{WA5} [dB]
RH50M-2DK.7M.2R	I	400	①	4.00	2290	2800	
		400*	②	**4.80***	**2900***	**2750***	89
		400	③	3.20	1670	2850	93

*rated data

Fan ordering information

Design	RH*	RH*
Installation position	H/Vu/Vo	H/Vu/Vo
Electrical connection	Supply cable lateral 105cm	Terminal box Mounted on motor.
		
Type	**RH50M-2DK.7M.2R**	**RH50M-2DK.7M.2R**
Article no.	**108120**	**122257**
Weight [kg]	33.60	33.60

* Inlet ring not included

Control technology

Frequency inverter Fcontrol 3~	Motor protection units 3~	Transformer-based controllers 3~	Electronic voltage controllers 3~
			
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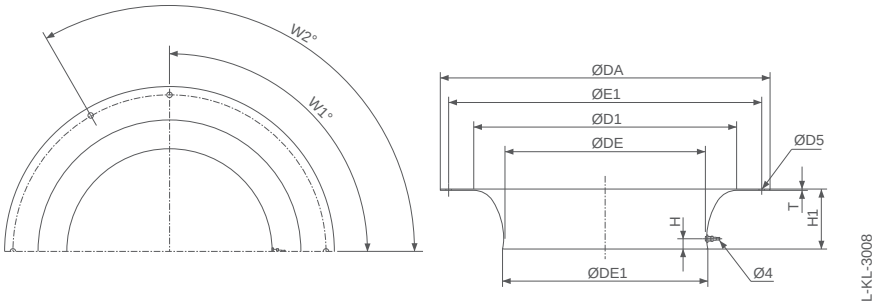
System components

Product overview

System components

Inlet ring for Cpro-ECblue full bell mouth

- Material: Sheet steel. galvanised
- With air flow meter
- Fastening diameter according to DIN EN 12 220

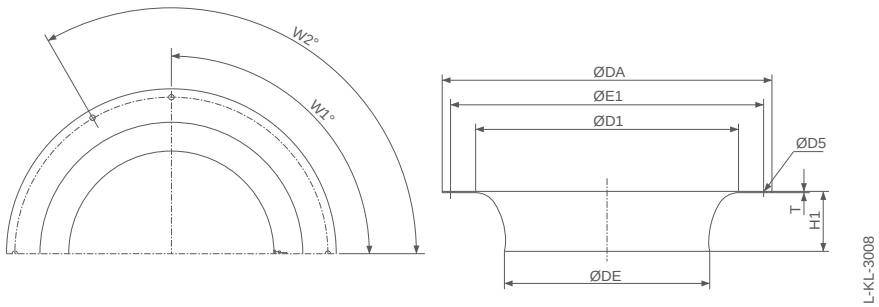


Size	Article no.	DA	DE	DE1	D1	D5	E1	H	H1	T	ZxW1°	ZxW2°	kg
		[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	(1)	(2)	
RH25C	00401504	277	153	158	202	8.5	257	12	47	1.5	6x60°	-	0.7
RH28C	00401505	303	171	176	225	8.5	283	12	52	1.5	6x60°	-	0.8
RH31C	00401506	343	193	198	253	8.5	317	12	59	1.5	4x90°	3x120°	1.1
RH35C	00401296	378	218	223	286	8.5	352	12	66	1.5	4x90°	3x120°	1.3
RH40C	00401297	418	246	252	322	8.5	392	13	74	2.0	4x90°	3x120°	2.1
RH45C	00401298	464	278	285	364	8.5	438	14	83	2.0	4x90°	3x120°	2.5
RH50C	00401299	514	312	320	410	8.5	488	16	94	2.0	4x90°	3x120°	3.1
RH56C	00401300	564	347	355	455	8.5	538	18	104	2.0	4x90°	3x120°	3.8
RH63C	00401301	634	389	397	510	10.5	600	20	117	2.0	6x60°	4x90°	4.7

(1) fastening inlet ring, (2) fastening guard grille

Inlet ring for Vpro-ECblue, Vpro full bell mouth

- Material: Sheet steel, galvanised



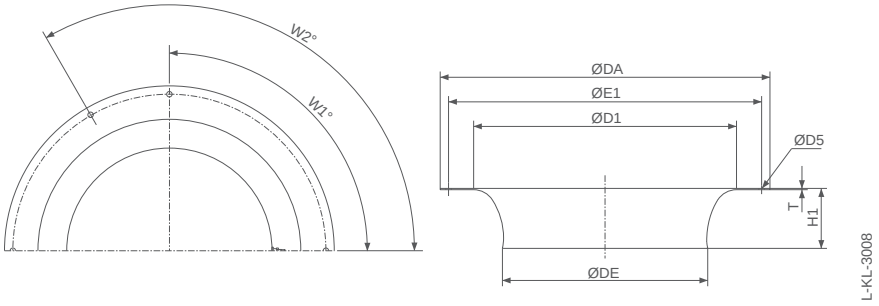
Size	Article no.	DA	DE	D1	D5	D6	E1	E2	H	T	ZxW1°	ZxW2°	kg
		[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	(1)	(2)	
RH19V	00407897	170	125.5	145.5	4.5	-	158	-	14	1.0	4x90°	-	0.1
RH22V (220)	00407898	252	155.0	195.0	5.5	4.3	242	245	21	1.0	6x60°	4x90°	0.3
RH22V (225)	00407899	223	146.4	196.6	4.5	-	210	-	28	1.0	4x90°	-	0.2
RH25V	00407900	255	165.0	221.6	4.5	-	240	-	31	1.0	4x90°	-	0.3
RH28V	00275848	265	180	234.6	7.0	-	250	-	43	1.0	6x60°	-	0.4
RH31V	00335943	300	203	260.6	7.0	-	285	-	54	1.0	6x60°	-	0.5
RH35V	00275850	338	228	292.2	7.0	-	315	-	58	1.0	6x60°	-	0.6
RH40V	00275570	374	257	324.9	9.0	-	350	-	66	1.0	6x60°	-	0.8
RH45V	00275571	413	287	364.0	9.0	-	390	-	71	1.0	6x60°	-	0.9
RH50V	00275572	456	323	410.0	9.0	-	430	-	79	1.0	6x60°	-	1.1
RH56V	00278489	530	361	459.0	9.0	-	510	-	87	1.5	6x60°	-	2.2
RH63V	00279305	745	407	510.3	11.5	-	720	-	95	1.5	12x30°	-	4.6

(1) fastening inlet ring, (2) fastening guard grille

System components

Inlet ring for L-series full bell mouth

- Material: Sheet steel, galvanised

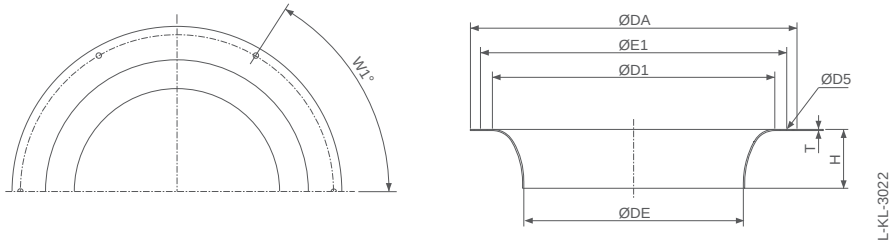


Size	Article no.	DA	DE	D1	D5	D6	E1	E2	H	T	ZxW1°	ZxW2°	
		[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	(1)	(2)	
RH19L	00407897	170	125.5	145.5	4.5	-	158	-	14	1.0	4x90°	-	0.1
RH22L (220)	00407898	252	155.0	195.0	5.5	4.3	242	245	21	1.0	6x60°	4x90°	0.3
RH22L (225)	00407899	223	146.4	196.6	4.5	-	210	-	28	1.0	4x90°	-	0.2
RH25L	00407900	255	165.0	221.6	4.5	-	240	-	31	1.0	4x90°	-	0.3
RH28L	00407901	280	183.3	242.3	4.5	-	260	-	35	1.0	4x90°	-	0.4
RH31L	00335943	300	203.0	260.6	7.0	-	285	-	54	1.0	6x60°	-	0.5

(1) fastening inlet ring, (2) fastening guard grille

Inlet ring for M-series full bell mouth

- Material: Sheet steel, galvanised

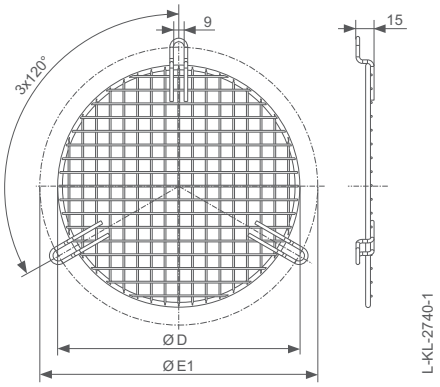


Size	Article no.	DA	DE	D1	D5	E1	H	T	ZxW1°	
		[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]		
RH22M	00278352	265	143	187.5	7.0	250	31	1.0	6x60°	0.4
RH25M	00275847	240	160	207.0	7.0	225	39	1.0	6x60°	0.3
RH28M	00275848	265	180	235.0	7.0	250	43	1.0	6x60°	0.4
RH31M	00279152	300	192	255.0	7.0	285	53	1.0	6x60°	0.5
RH35M	00275850	338	228	292.0	7.0	315	58	1.0	6x60°	0.6
RH40M	00275570	374	257	325.0	9.0	350	66	1.0	6x60°	0.8
RH45M	00275571	413	287	364.0	9.0	390	71	1.0	6x60°	0.9
RH50M	00275572	456	323	410.0	9.0	430	79	1.0	6x60°	1.1

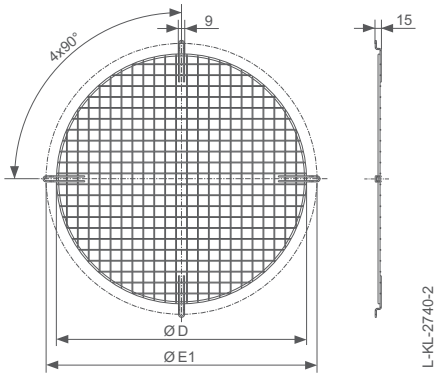
System components

Suction guard grille for Cpro-ECblue

- Material: Steel, coated, pebble grey
- maximum mesh width ≦ 10 mm



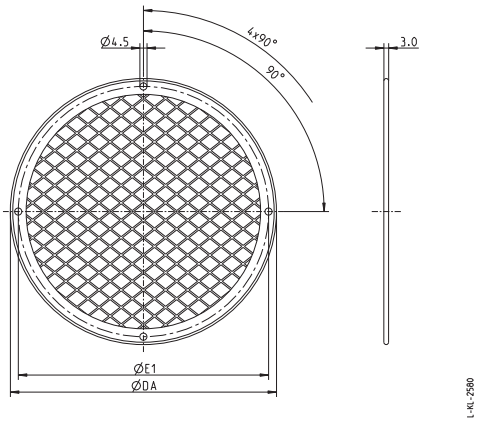
Size		Article no.	Dimensions	
			D [mm]	E1 [mm]
ER25C	-	00409757	203	233
ER28C	RH/GR25C	00409758	225	257
ER31C	RH/GR28C	00409759	249	283
ER35C	RH/GR31C	00409760	273	317
ER40C	RH/GR35C	00409761	299	352
ER45C	RH/GR40C	00409762	335	392
ER50C	RH/GR45C	00409763	410	438
-	RH/GR50C	00409764	410	488



Size	Article no.	Dimensions	
		D [mm]	E1 [mm]
RH/ER/GR63C	00409765	506	538
RH/ER/GR63C	00409766	556	600

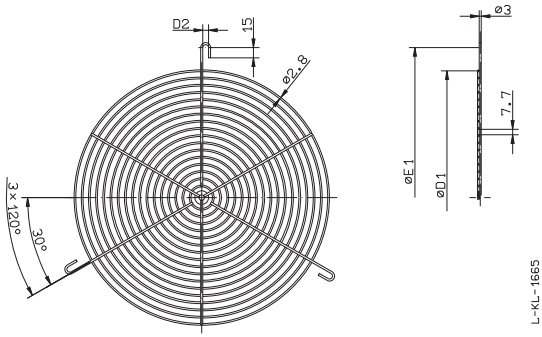
Suction guard grille for Vpro-ECblue, Vpro

- Material: Steel, galvanised
- maximum mesh width < 8 mm



Size	Article no.	Dimensions	
		DA [mm]	E1 [mm]
RH19V	00408187	168	158
RH22V (220)	00408188	255	245
RH22V (225)	00408189	220	210
RH25V	00408190	250	240
RH31V (.W_)	00408192	291	281

- Material: Steel, coated, black
- maximum mesh width < 8 mm

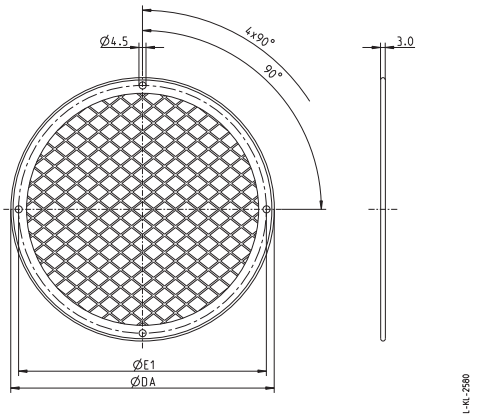


Size	Article no.	Dimensions		
		D1 [mm]	D2 [mm]	E1 [mm]
RH28V	00279178	202	6.5	259
RH31V (.0_)	00279179	223	6.5	286
RH31V (.2_)	00279179	223	6.5	286
RH35V	00279180	265	6.5	322
RH40V	00279181	286	8.5	356
RH45V	00279182	328	8.5	395
RH50V	00279183	370	8.5	438

System components

Suction guard grille for L-series

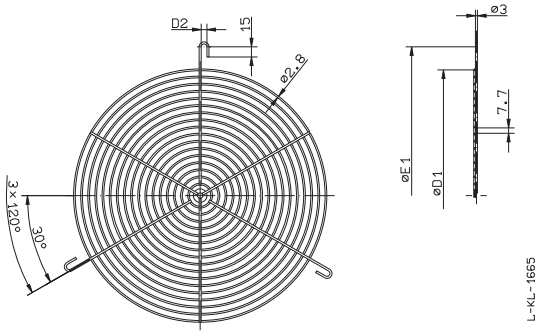
- Material: Steel, galvanised
- maximum mesh width < 8 mm



Size	Article no.	Dimensions	
		D [mm]	E1 [mm]
RH19L	00408187	168	158
RH22L (220)	00408188	255	245
RH22L (225)	00408189	220	210
RH25L	00408190	250	240
RH28L	00408191	270	260
RH31L	00408192	291	281

Suction guard grille for M-series

- Material: Steel, coated, black
- maximum mesh width < 8 mm

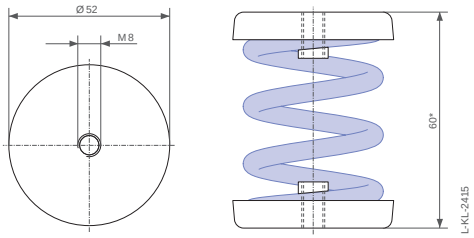


Size	Article no.	Dimensions		
		D1 [mm]	D2 [mm]	E1 [mm]
RH22M	00279178	202	6.5	259
RH25M	00279175	181	6.5	235
RH28M	00279178	202	6.5	259
RH31M	00279179	223	6.5	286
RH35M	00279180	265	6.5	322
RH40M	00279181	286	8.5	356
RH45M	00279182	328	8.5	395
RH50M	00279183	370	8.5	438

System components

Spring vibration dampers for ER modules

- Material: Steel, galvanised
- Cylindrical screw spring with two spring holders

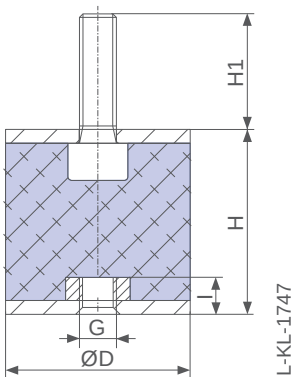


Type MSN, * unstressed

Type	Article no.
MSN 3	02006459
MSN 4	02006458
MSN 5	02006446
MSN 6	02006447

Rubber dampers for Cpro ER modules

- Material: Rubber
- galvanised metal plates

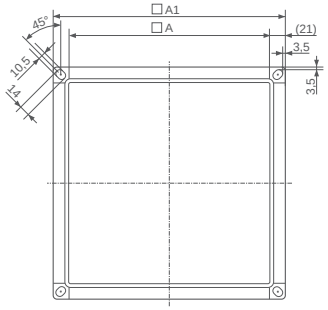


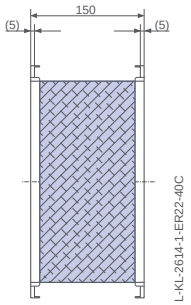
Type	Article no.	Dimensions				
		D [mm]	G [mm]	H [mm]	H1 [mm]	I [mm]
30x30 / 40	02001048	30	M8	30	20	6
30x30 / 55	00090144	30	M8	30	23	6

System components

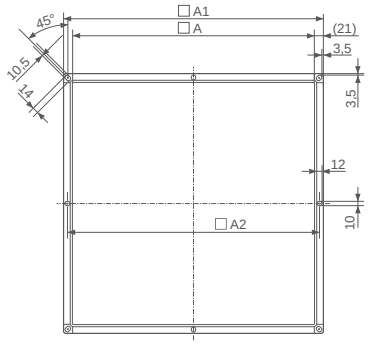
Flexible intake flanges for Cpro ER modules

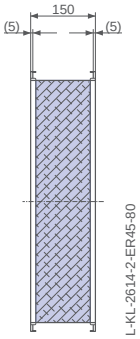
- Material: Polyester fabric, grey
- Frame: Galvanised steel





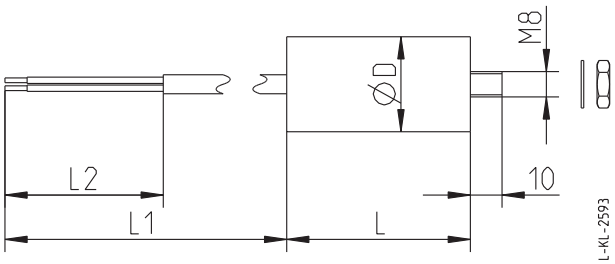
Size	Article no.	Dimensions A [mm]	A1 [mm]
ER25C	00403346	265	307
ER28-31C	00406513	280	322
ER35-40C	00406514	365	407





Size	Article no.	Dimensions A [mm]	A1 [mm]	A2 [mm]
ER45-50C	00406515	445	487	470
ER56-63C	00405986	640	682	664

Service capacitor



Description

Material: plastic housing
Wiring: AWG18 or AWG20
Max. Voltage: Umax = 400V
Ambient temperature: -25 °C to +85 °C

Capacity (µF)	Article no.	D	L	L1	L2
1.0	02006926	26	53	350	50
1.5	02006927	25	57	180	50
2.0	02006930	25	57	350	50
2.5	02006931	25	57	350	50
3.0	02006932	26	53	350	50
3.5	02011670	30	57	210	210
4.0	02006933	25	71	350	50
5.0	02006934	30	58	350	50
6.0	02006935	30	72	350	50
7.0	02006936	30	78	350	50
8.0	02006937	30	98	350	50
10.0	02006938	35	71	350	50
12.0	02006939	35	71	350	50
14.0	02006940	40	71	350	50
16.0	02006941	40	70	350	50
20.0	02006942	40	95	350	50
25.0	02006943	40	92	350	50
30.0	02006944	40	113	350	50
35.0	02006945	40	113	350	50
40.0	02006961	45	119	350	50
50.0	02008401	50	117	250	40


ESC
ZIEHL-ABEGG

Control technology

Product overview

Selection criteria for control devices

ZIEHL-ABEGG is the only fan manufacturer who develops its own methods for fan speed control and then proceeds to manufactur the matching controllers:
- Voltage controllers
- Frequency inverter
- EC-Controller

It is not the run of the mill solutions that produce clear advantages for special applications. Instead, the criteria specific to the system need to be taken into consideration in order to achieve the best possible results. At ZIEHL-ABEGG, you benefit from unbiased advice. The selection of the controller method is based on whatever best suits the system criteria.
Detailed information about our control technology program is available in our catalogue E01. We'd be happy to send you this catalogue.

It is the following criteria that are decisive in selecting the correct controller:
- Controlled variable
- Motor noises
- Profitability

Controlled variable

Basically, the question is whether you want to implement an open control loop (only a speed controller, which works based on a preset or actuating signal) or a closed control loop (independent control of a physical value, e.g., temperature, pressure, etc. in connection with corresponding sensors). In our delivery program, you can find controllers that work solely as speed controllers and designs that independently control processes, some even withcomprehensive additional features. On top of that, we supply the required sensors.

Sensors for process control:

Pressure sensor
MBG-30I

Temperature sensors
TF...

Air velocity sensors
MAL...

Pressure sensor
MPG... (gases)

Combined sensor for CO_2, humidity, temperature

Quiet motor operation

Depending on the application, different requirements are placed on low noise emission by the control method. For instance, due to its very low investment cost, electronic voltage control is very popular. However, electromagnetic excitation can arise due to the principle of phase-cut control, causing humming noises in the motors. As these excitations can be further amplified through resonances throughout the entire device, it is recommended to fall back on the control method (as early as in the planning stages), which does not cause electromagnetic excitation in the motors when these are to be used in noise-sensitive areas.

For 1~ alternating current fans, 1~ Fcontrol frequency inverters are available.
In the 3~ area, the noise filter GFD is available for voltage control devices as an accessory. Alternatively, these components can also be retrofitted. As another option, we recommend using the Fcontrol frequency inverter (3~) or EC technology as these systems work without the inference of electromagnetic motor noises.

Control devices for noiseless speed control:

Frequency inverter
Fcontrol

EC-controller Econtrol

ECblue fan with integrated EC controller

Cost effectiveness

In addition to the investment costs, it is absolutely essential to take the energy costs incurred during the service life into account for an asssement of the control system. Voltage control units are very favourable in terms of their investment costs for instance.
The Fcontrol frequency inverters or ECblue fans have clear advantages in comparison with voltage control.

Options for speed control

Speed control with frequency inverter

We specifically developed frequency inverters for trouble-free, quiet and cost-effective speed control of fans in parallel operation.

Fcontrol frequency inverter

Our Fcontrol frequency inverters with integrated, all pole effective sine filters enable parallel operation without placing restrictions on the cable lengths and without using shielded motor cables. The frequency inverters have stored, selectable operating modes, e. g. for refrigeration, air-conditioning and clean room technology along with agricultural applications.
Fcontrols can also be supplied for controlling pumps and for compressors.

The advantages of the Fcontrol frequency inverter:
- Speed control without electromagnetic motor noises
- Motors are not exposed to risk
- Operation without shielded motor cables
- No restriction during parallel operation of motors on the Fcontrol
- Very energy efficient
- The motor cable lengths are not restricted by Fcontrol
- Universal control functions are already integrated

Frequency inverter Fcontrol

Icontrol frequency inverters

Standard Icontrol frequency inverters are available for controlling internal rotor motors (IEC standard motors).

Speed control with voltage control devices

ZIEHL-ABEGG offers a comprehensive product range of electronic voltage control devices for continuously adjustable speed control of voltage controllable 3~ and 1~ fans. Not only simple devices (control via a potentiometer) - but also multifunction ones with display - can be used for numerous applications. Multifunction devices have selectable operating modes already stored, e.g. for refrigeration, air-conditioning, clean room technology and even agricultural applications.

Since electromagnetic noises can arise in the motors when using the principle of phase-cut control, we recommend the Fcontrol frequency inverter for noise-sensitive applications.

The advantages of electronic voltage control:
- Reasonably priced investment
- Universal control functions are already integrated

Important when selecting devices:
A voltage drop can lead to an increase in the motor's power consumption. Please take this into consideration with a current reserve when designing voltage control devices. In this context please note the technical data of the fans, especially regarding the statement of ΔI.


Basic 1~ voltage control device

Universal 3~ voltage control device

Speed control with transformers

Voltage controllable fans can have their speed changed by using transformers. For this purpose, we supply individual transformers (e.g. installation in switch cabinets) and complete transformer-based controllers with 5-step switch with various equipment:
- Control devices with and without integrated motor protection function
- Control devices with additional contacts and additional functions

The advantages of transformer-based speed control:
- Simple, robust technology
- No electromagnetic motor noises


Transformer-based 5-stage control devices for 1~ and 3~

Motor protection concept

The majority of ZIEHL-ABEGG external rotor motors (excluding ex-motors) are equipped with "TB" thermostats.
Standard protective switches or bi-metal actuators in the motor feed line work dependent of current and thus offer only incomplete protection as the current does not allow conclusions to be made about the motor winding temperature under all conditions.
In contrast, thermostats are bimetal switches embedded in the motor winding and they can react directly to the motor's winding temperature. They open an electrical contact, as soon as their nominal switch temperature (NST) is attained.

Thermal contact

Fans can be securely protected by ZIEHL-ABEGG motor protection devices. Especially when they are

- speed controlled by voltage,
- operated with excessive switching frequency,
- when they are stalled,
- or exposed to high ambient temperatures.

Thermostats must be connected in the control circuit so that during a malfunction the fans are not independently reconnected after cooling off. ZIEHL-ABEGG devices meet these conditions. Mutual protection of several motors is possible with one protection device. In order to do this, the temperature protectors of the individual motors have to be connected in series. Please pay attention to the fact that all motors are disconnected at the same time in case of a temperature failure in a single motor. In real life applications, motors are grouped, so in case one moror fails it is still possible to run in emergency mode with reduced power.
To ensure optimum motor protection we provide motor protection units in various designs.

Motor protection units for 3~ motors

The STDT motor protection units for 3~ motors combine several functions:
The motor is primarily protected by "TB" thermostat monitoring. This ensures direct monitoring of the winding temperature. On top of that, the STDT has an integrated overcurrent release that protects the lead to the motor from overcurrent. This feature - plus the integrated double terminals- allow the STDT to be used like a "current distribution" of sorts. As an alternative, we can supply complete switch boxes tzhat serve as a current distribution and are integrated in our motor protection units.

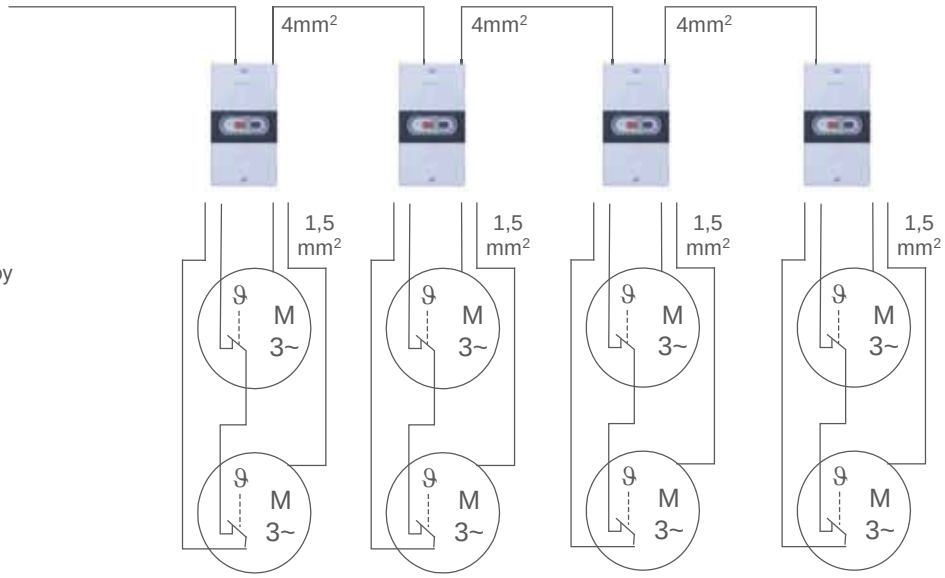
Motor protection units and system components

Current distribution with motor protection units

Application example with 3 ~ motor protection units as "current distribution"

Network or control devices output

Single fans or groups of fans protected by thermostats



Motor protection units for 1~ motors

In the 1~ motor protection units, it is intended that each motor is allocated one motor protection device. Motor protection is also carried out using “TB“ thermostat monitoring.

Monitor unit for thermistors

Our U-EK monitor device is available for monitoring “TP“ thermistors, which are also approved for monitoring Ex-protected motors (ATEX approval).

Motor protection and switchgear

For speed selecting motors in which the motor windings are intended for this, we supply the switchgear with integrated monitoring functions for the “TB“ thermostats.

Monitoring unit U-EK230E

Control module

UNIcon universal control module (with MODBUS Master function)

All ZIEHL-ABEGG sensors can be combined with the UNIcon CXE/AV(E) universal control module. The actual value measured at the sensor is compared with the setpoint. This results in the 0-10 V output signal. Two 0-10 V outputs are integrated. These serve to activate EC fans, frequency inverters or other devices. Optionally, connected field devices (frequency inverters/EC fans with plugged MODBUS add-on module) can be activated by the integrated MODBUS-RTU interface (MODBUS Master function). Groups of frequency inverters or ECblue fans can be conveniently addressed quickly and automatically. The device also contains two separate control circuits, a real time clock and timer functions. UNIcon universal control modules are especially suitable for the following applications: Refrigeration, air conditioning, general ventilation tasks, clean room technology. For typical applications in the areas mentioned, fast start-up is possible by selecting pre-programmed operating modes.

We supply special control modules for agriculture.

Input for sensors or speed setting through

0-10V — Setting of the desired speed through device or by external default, e.g. 0-10 V

0-30 0-50 bar — Connecting pressure sensors (refrigeration), e.g. type MBG.. sensors, measuring range 0-30 bar, 0-50 bar

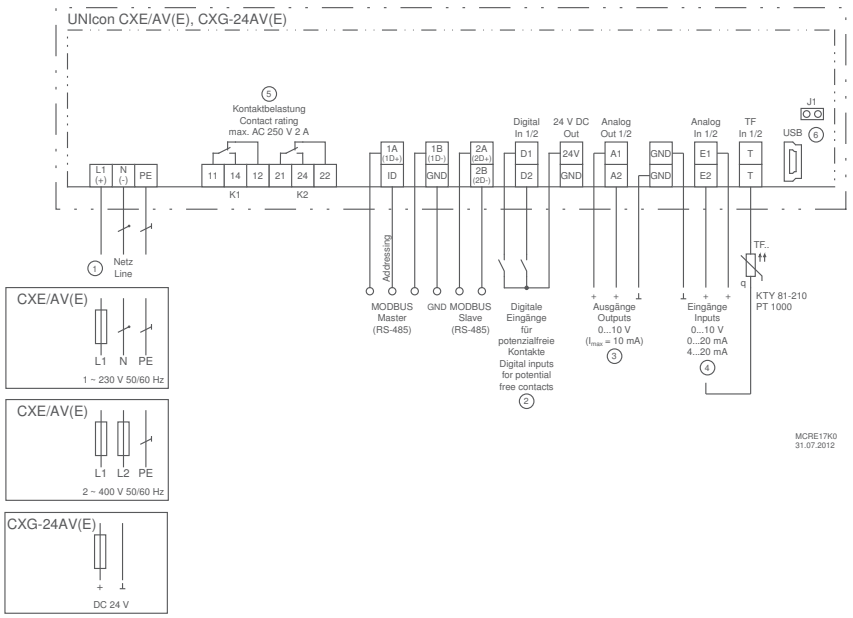
°C — Connecting temperature sensors, e.g. sensor type TF.., device measuring range -27...+75 °C, e.g. active sensor type MTG.., Sensor measuring range -10...+120 °C

△Pa — Connecting differential pressure sensors (air conditioning), e.g. type DSG.. sensors, measuring range 0-6000 Pa, acquisition of volume flows up to 65,000 m³/h

m / s — Connecting air velocity sensors, e.g MAL.. type sensors, measuring range 0-1 m/s, 0-10 m/s

CO_2 % °C — Connecting additional sensors, e.g. combination sensors, CO_2, sensor signal 0-10 V / 0-20 mA / 4-20 mA

Connection diagram



① Line
② Digital inputs for potential-free contacts
③ Outputs
④ Inputs
⑤ Contact load
⑥ Jumper for boot loader

Technical data

- Integrated voltage supply for sensors: +24 V, max. 70 mA
- Integrated analog outputs A1 and A2: 0-10 V, I_{max} 10 mA (short-circuit-proof)
- Maximum load of relays K1 and K2: AC 250 V / 2 A
- Maximum ambient temperature: +55 °C
- Interference emission according to EN 61000-6-3
- Interference immunity according to EN 61000-6-2

Equipment/properties

Multi-function display with plain text display:
Different menu languages can be selected

Simple start-up by operating modes:
Typical operating modes, e.g. for air conditioning, refrigerant or ventilation technology can be selected.

Simple programmability:
e.g. setting of a minimum speed, limitation of the maximum speed, inversions and limits.
Setting, e.g. for 2-step mode

2 analog inputs for sensors or setting signals:
Analog input E1 and E2: Setting by operating modes or manually programmable, e.g. 0-10 V, 0-20 mA, 4-20 mA
analog input E2: programmable, e.g. comparison with sensor 1, difference to sensor 1, average value formation, setpoint setting, setpoint adaptation (e.g. outdoor temperature-dependent)

2 digital inputs D1, D2:
Programmable, e.g. enable, switch over setpoint 1 or 2, switch over control or manual mode, switch over E1 or E2, control function inversion, output limitation, display external fault

2 analog outputs for activation of external speed controllers, EC fans, other devices:
Analog output A1 and A2: Setting by operating modes or manually programmable, e.g. output signal proportional to modulation, output signal proportional to input signal, invertible, 10 V constant voltage, group control

2 digital outputs (relays) K1 and K2:
Setting by operating modes or manually programmable, e.g. operating indication, fault indication, limits, external fault at digital input, activation of external devices, e.g. heating, group control fans, etc.

2 interfaces RS485:
a) For connection of ZIEHL-ABEGG field devices with MODBUS RTU interface (e.g. field devices with integrated “AM-MODBUS” add-on module). Witht the possibility of automatic addressing of these field devices.
b) MODBUS Slave function of the UNIcon, for connection to a master control station (GLT).

Set protection/memory for settings:
Activation of set protection against unauthorised access, restoration of made settings

Event memoy:
Querying of occurred events, operating times etc.

Integrated real time clock with timer:
The timer function behaves like a digital input, the desired function can be selected accordingly. Up to four switching times per day can be set for the desired function.

UNIcon universal control module							
Line	Type	Article no.	Max. line fuse [A]	Max. heat dissipation [W]	Protection class	kg	Dimensions (W x H x D) [mm]
1~ 230 V 50/60 Hz	CXE/AV	320053	10	10	IP54	0.9	223 x 200 x 115
	CXE/AVE	320056			IP54*	0.8	166 x 106 x max. 105
2~ 400 V 50/60 Hz	CXE/AV	320055			IP54	0.9	223 x 200 x 115
24V DC	CXG-24AV	320057			IP54	0.6	
	CXG-24AVE	320058			IP54*	0.5	166 x 106 x max. 105

* Panel-mounting (front side IP54)

Control module

UNIcon sensor control module for pressure

The sensor control module for pressure measures and displays the pressure, for instance in refrigeration circuits. Depending on the desired setpoint and control range, the sensor control module generates
0-10 V to control the EC fan or, for example, a frequency inverter.

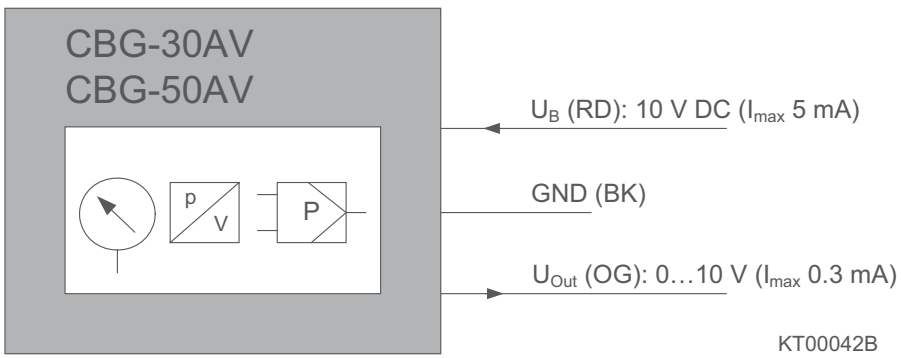
The sensor control module is supplied with 10 V DC from the fan or frequency inverter that it controls. No additional supply voltage is required.

Input for sensors or speed setting through

0-30
0-50
bar

Pressure sensor and control intelligence are combined in one device

Connection diagram



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Technical data

- Controlled output signal: 0-10 V (I_{max} = 0.3mA)
- Voltage supply with polarity reversal protection: 10 V DC (I_{max} = 5 mA)
- Permissible ambient temperature: -20 °C...+60 °C
- Maximum media temperature: +90 °C
- Mechanical pressure connection from copper alloy: 7/16-20 UNF female thread with Schrader opening
- Accuracy class: 2.5
- Safety regulation acc. to EN 837-1
- Interference immunity acc. to EN 61000-4-6 / EN 61000-4-3

Equipment/Characteristics:

Analogue pressure indicator for measured actual value:
Unit versions for 0-30 bar and 0-50 bar can be supplied
Display of the plant pressure also without energy supply

Set the desired plant pressure through the integrated potentiometer:
Version 0-30 bar: setpoint value 6-21 bar adjustable
Version 0-50 bar: setpoint 10-35 bar adjustable

Set the desired control range through the integrated potentiometer:
Version 0-30 bar: Control range 3-9 bar adjustable
Version 0-50 bar: Control range 5-15 bar adjustable

Implemented 3-strand cable approx. 2 m:
1 x output 0-10 V: for controlling EC fans, frequency inverters, other devices
1 x supply with 10 V DC: from the connected EC fan, frequency inverter, other device
1 x GND

Suitable for all refrigerants except NH_3

Application/Function

The sensor control module is screwed through a female thread with the Schrader valve directly onto the refrigerant circuit on the condenser outlet.
Under the influence of pressure, an integrated elastic tube spring measuring element deforms. The measured pressure can be read immediately.
Through a Hall sensor, the deformation is transmitted non-contact and wear-free to the integrated control electronics. An automatic alignment with the measured value is made through the facility of being able to set the desired pressure in the plant with a potentiometer on the unit. The consequential 0-10 V signal controls connected EC fans, frequency inverters or other devices.

UNIcon sensor control module for pressure

Line	Type	Article no.	Protection class		Dimensions (W x H x D) [mm]
10 V DC	**CBG-30AV**	**320039**	IP65	0.2	55 x 77.5 x 45
	CBG-50AV	**320040**	IP65	0.2	55 x 77.5 x 45

Control module

UNIcon sensor control module for differential pressure/air flow

The sensor control module for differential pressure and volume flow measures and indicates the pressure or, optionally, the volume flow in a ventilation system. The calculation of the volume flow is performed by entering the K-factor of the fan inlet ring.

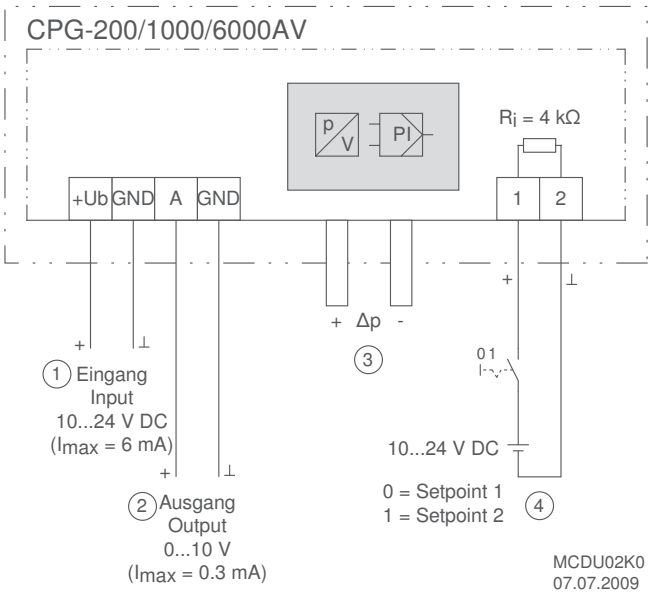
Depending on the desired setpoint value and control range, the sensor control module generates 0-10 V to control the EC fan or e.g., a frequency inverter.

The sensor control module is supplied by the fan or frequency inverter which it controls, e.g., with 10-24 V DC. No additional supply voltage is necessary.

Input for sensors or speed setting through

△Pa	Pressure sensor and control intelligence are combined in one device
m³	Air flow sensor (by input of K-factor) and control intelligence are combined in one device

Connection diagram



① Input
② Output
③ Connection sockets
④ Voltage input for switch over

Technical Data

- Controlled output signal: 0-10 V (I_{max} = 0.3mA)
- Voltage supply with polarity reversal protection: 10-24 V DC(I_{max} = 6 mA)
- Permissible ambient temperature: -10 °C...+50 °C
- Pressure ports + / -: for ∅ 5mm hose adapters ∅ 5 mm
- Interference emission: compliant with EN 61000-6-3
- Interference immunity: compliant with EN 61000-6-2

Equipment/properties

Integrated display:
For pressure or air flow display and for programming

Simple start-up by operating modes:
Operation as a pressure or air flow sensor
Operation as pressure or air flow controller

Simple programmability by 3 buttons under the cover:
Selection measuring range, input setpoints (1/2),
Pband, K-factor for air flow determination,
minimum or maximum output signal

Different measuring ranges can be selected depending on the version:
CPG-200AV: 0-50 / 100 / 150 / 200 Pa
CPG-1000AV: 0-200 / 300 / 500 / 1000 Pa
CPG-6000AV: 0-2000 / 3000 / 4000 / 6000 Pa
Maximum air flow measuring range: 65,000 m^3/h

Voltage input for switch over:
setpoint 1 or 2

1 analog output:
for activation of EC fans, frequency inverters, other devices

Application/Function

The sensor control module is connected to the ventilation system via 2 pressure ports (pressure socket + and -).
The differential pressure registered on the ventilation system affects the sensor on a silicone membrane in the device. The deformation of the membrane is registered through a measuring element and transmitted to the integrated electronics. Function: Pressure rise on +, compared to pressure on - connection.
Optionally, the device can be operated as a pressure sensor, i.e., pressure indicator and proportional output signal 0-10 V corresponding to the set measurement range.
Optional operation as a volume flow sensor, i.e. volume flow (by entering the K-factor of the centrifugal fans) and 0-10 V proportional output signal corresponding to the set measurement range.
Optional operation as a control module for pressure or volume flow. The entered setpoint is compared to the actual value; the 0-10 V output signal results from that. That is used to trigger EC fans, frequency inverters or other devices.

UNIcon sensor control module for differential pressure/air flow					
Line	**Type**	**Article no.**	Protection class	kg	Dimensions (W x H x D) [mm]
10-24 V DC	**CPG-200AV**	**320042**	IP54	0.3	114 x 108 x 56
	CPG-1000AV	**320043**	IP54	0.3	
	CPG-6000AV	**320044**	IP54	0.3	

* with cable gland

Control module

UNIcon temperature control module

The CTG temperature control module can be combined with various temperature sensors.

The actual value measured on the sensor is compared with the set-point. That produces the 0-10 V output signal. This is used to trigger EC fans, frequency inverters or other devices.

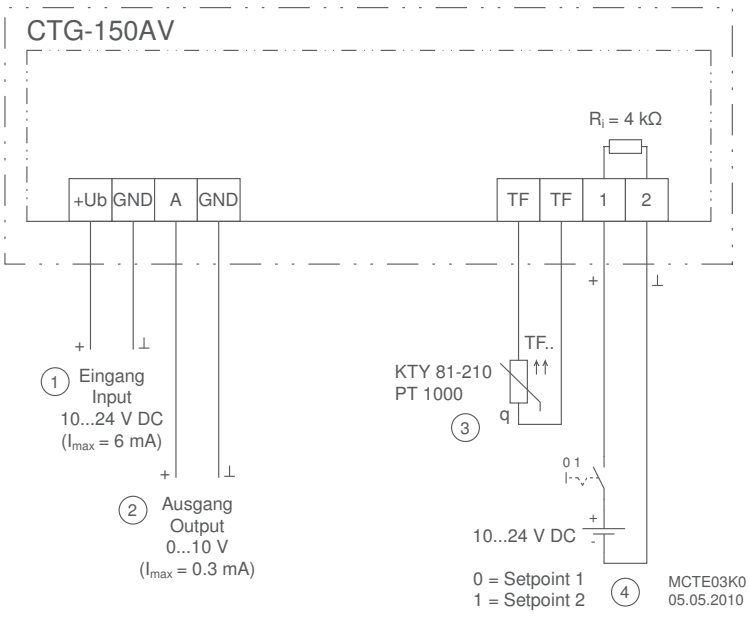
The control module is supplied with 10-24 V DC from the fan or frequency inverter it is triggering. No additional power supply necessary.

Optionally, the module can also be used as a temperature display. The 0-10 V output signal is then proportional to the set measurement range.

Input for sensors or speed setting through

°C Connection of temperature sensors, e.g. Type TF.. sensors, device measurement range -50...+150°C

Connection diagram



① Input
② Output
③ Temperature sensors
④ Voltage input for switch over

Technical Data

- Controlled output signal: 0-10 V (I_{max} = 0.3mA)
- Voltage supply with polarity reversal protection: 10-24 V DC(I_{max} = 6 mA)
- Permissible ambient temperature: -10 °C...+50 °C
- Interference emission: compliant with EN 61000-6-3
- Interference immunity compliant with EN 61000-6-2

Equipment/Characteristics

Integrated display:
For temperature display and for programming

Simple commissioning of the operating modes:
Operation as temperature sensor or temperature controller

Easy to program using 3 buttons under the cover:
Select measurement range, enter setpoint (1/2), control range, Minimum or maximum output signal

Adjustable measurement range when using as temperature sensor:
-50 °C...+150 °C

Voltage input for switch over
Setpoint 1 or 2

1 analogue output:
To control EC fans, frequency inverters, other devices

UNIcon temperature control module					
Line	**Type**	**Article no.**	Protection class		Dimensions (W x H x D) [mm]
10-24 V DC	**CTG-150AV**	**320048**	IP54	0.3	114 x 108 x 56

* with cable gland

Control module

UNIcon temperature control module

The CTE temperature control module can be combined with various temperature sensors.
The actual value measured on the sensor is compared with the setpoint. That produces the 0-10 V output signal, which is used to control EC fans, frequency inverters or other devices.

Equipment/Characteristics

Integrated display:
Display of actual temperature

Integrated LED strip:
Display of 0-10 V modulation

Simple operation with rotary knob
Set the desired setpoint

Additional settings via controls under the cover:
Switch over control function (heating or cooling), setting control range, set minimum or maximum output signal

Input for sensors or speed setting through

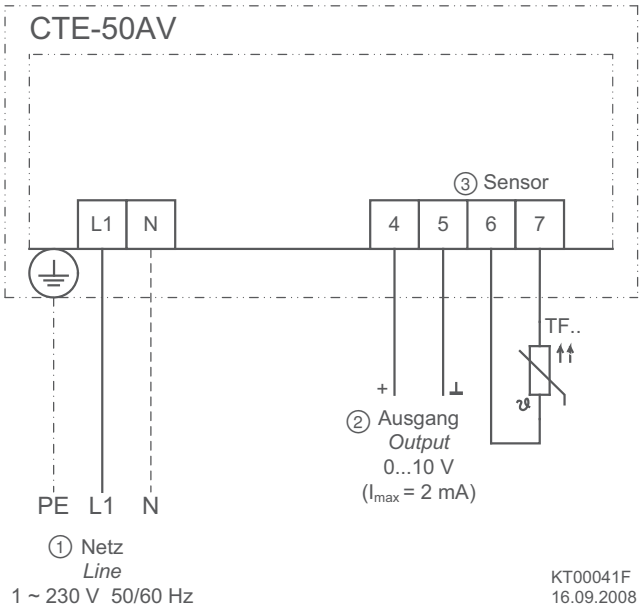
Connecting temperature sensors, e.g. Type TF.. sensors, device measurement range 0...+50 °C

Technical Data

- Controlled output signal: 0 - 10 V (I_{max} = 2mA)
- Voltage supply 1~ 230 V 50/60 Hz
- Permissible ambient temperature: -10 °C...+50 °C
- Interference emission: compliant with EN 61000-6-3
- Interference immunity compliant with EN 61000-6-2

UNIcon temperature control module					
Line	**Type**	**Article no.**	Protection class	kg	Dimensions (W x H x D) [mm]
1~ 230 V 50/60 Hz	**CTE-50AV**	**320038**	IP54	0.4	125 x 104.5 x 68.7

Connection diagram



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① Line
② output
③ Sensor

Add-on modules

AM-MODBUS (-W) for Basic Frequency inverter and ECblue fans

Pluggable add-on modules for function extension of the “Icontrol Basic” and “Fcontrol Basic” frequency inverters without integrated display (also for functional extension of ECblue fans).
With the AM-MODBUS/-W add-on modules, the frequency inverters integrated into MODBUS networks or the A-G-247-NW operator terminal can be connected. Parameterization and data polling by radio (with AM-MODBUS-W) are optionally possible.
Whole groups of frequency inverters or ECblue fans that are equipped with these AM-MODBUS add-on modules can be addressed quickly and automatically by a ZIEHL-ABEGG UNIcon control module with MODBUS-Master function. These devices are then controlled conveniently by the UNIcon “master” device.

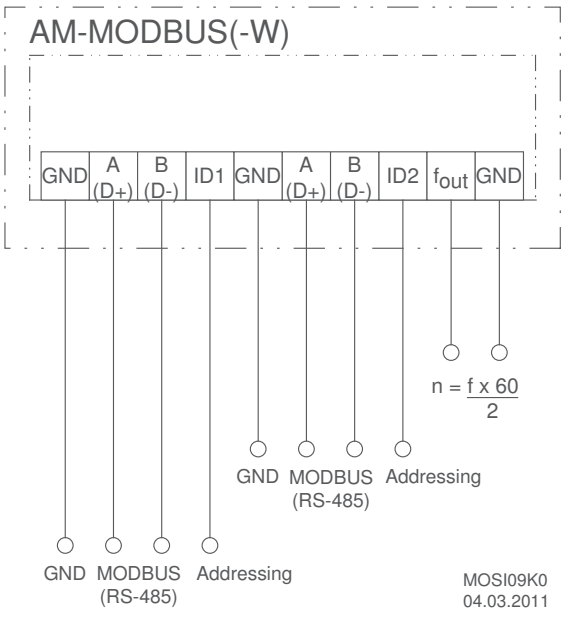
Equipment/properties

2 x interface RS485:
For integration into a MODBUS RTU network (MODBUS Slave).
With the possibility of automatic addressing by a UNIcon control module with MODBUS-Master function.

1 x Open Collector:
Squarewave signal for frequency or speed information

Add-on module - AM-MODBUS (-W)			
Type	**Article no.**	Communication	
AM-MODBUS	**349045**	Via cable	0.03
AM-MODBUS-W	**349050**	Additionally by radio	

Connection diagram



Add-on modules

AM-PREMIUM (-W) for Basic Frequency inverter and ECblue fans

Pluggable add-on modules for function extension of the “Icontrol Basic” and “Fcontrol Basic” frequency inverters without integrated display (also for functional extension of ECblue fans).
With the AM-Premium/-W add-on modules, the frequency inverters can be functionally extended as a control unit. In addition, it is possible to link to MODBUS networks or connect operator terminals (A-G-247-NW / AXG-1A / AXG-1AE). Radio parameterization and data polling (with AM-Premium-W) is also possible as an option.

Input for sensors or speed setting through

0-10V — Setting of the desired speed through device or by external default, e.g. 0-10 V

0-30 0-50 bar — Connecting pressure sensors (refrigeration), e.g. type MBG.. sensors, measuring range 0-30 bar, 0-50 bar

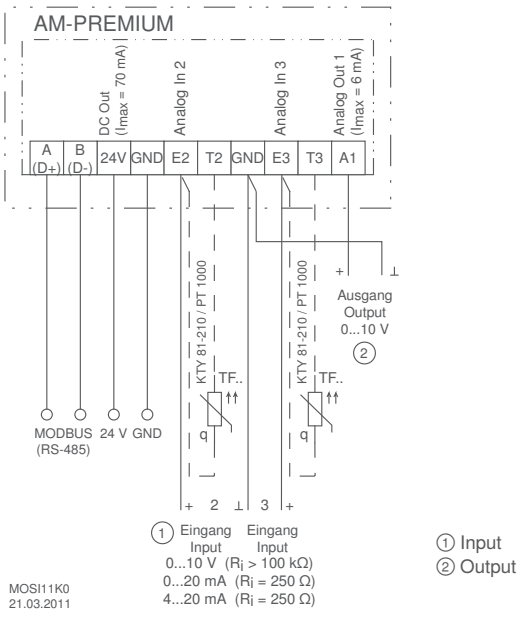
°C — Connecting temperature sensors,
e.g. sensor type TF.., device measuring range -27...+75 °C,
e.g. active sensor type MTG.., Sensor measuring range -10...+120 °C

△Pa — Connecting differential pressure sensors (air conditioning), e.g. type DSG.. sensors, measuring range 0-6000 Pa, acquisition of volume flows up to 65,000 m³/h

m / s — Connecting air velocity sensors, e.g MAL.. type sensors, measuring range 0-1 m/s, 0-10 m/s

CO_2 % °C — Connecting additional sensors, e.g. combination sensors, CO_2, sensor signal 0-10 V / 0-20 mA / 4-20 mA

Connection diagram



Equipment/properties

Simple start-up via operating modes:
When an operator terminal is connected to the AM-Premium add-on module, which in turn is plugged into the frequency inverter (for AM-Premium-W via radio), typical operating modes, e.g. for air conditioning, refrigerant, or ventilation technology, can be selected.

2 analogue inputs for sensors or setting signals:
analogue input E2 and E3: Setting via operating modes or manually programmable, e.g. 0-10 V, 0,20 mA, 4-20 mA
analogue input E3: Programmable, e.g. comparison with sensor E2, difference compared to sensor E2, average value formation, setpoint setting, setpoint adjustment (e.g. outdoor temperature-dependent) connection of passive thermistors: On E2 and T2, E3 and T3.

1 analogue output A1:
Setting via operating modes or manually programmable, e.g. output signal proportional to modulation, output signal proportional to input signal, invertible, 10 V constant voltage, group control.

Functional extension: Digital input D1 in the basic device:
programmable, e.g. enable, switch over setpoint 1 or 2, switch over control or manual mode, switch over E2 or E3, control function inversion, output limitation, external fault, reset, reversal of direction of rotat. direction.

Functional expansion: Digital output K1 in the basic device:
setting by operating modes or manually programmable, e.g. operating indication, fault indication, limits, external fault at digital input, activation of external devices, e.g. heating, shutters, group control fans, etc.

1 x interface RS485:
For linking to a MODBUS RTU network (MODBUS Slave). Manual addressing of the devices in the network

Add-on module AM-PREMIUM/-W			
Type	**Article no.**	Functional extension and communication	kg
AM-PREMIUM	**349046**	Via cable	0.03
AM-PREMIUM-W	**349051**	Additionally by radio	

Hand held terminal

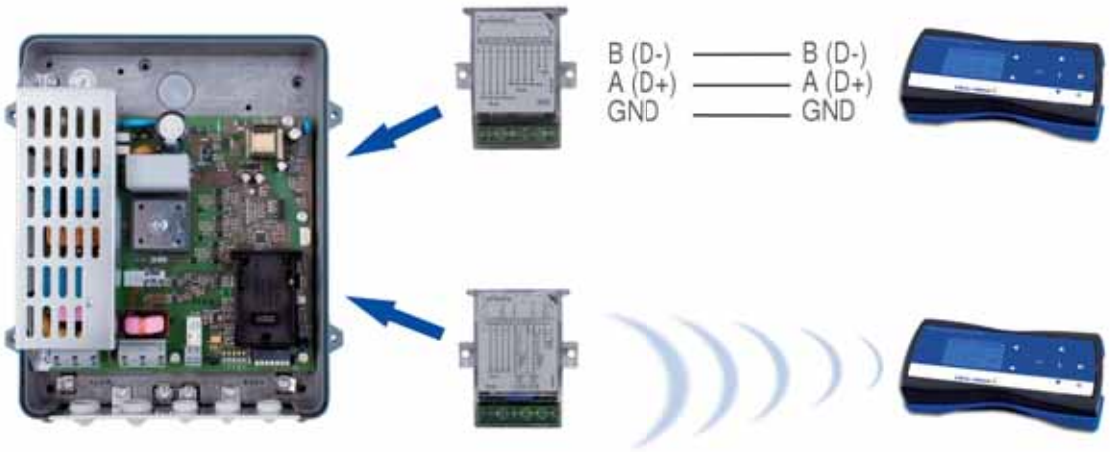
Parameterization of the basic frequency inverters and ECblue fans

Hand held terminal for parameterization and operation of the “Icontrol Basic” and “Fcontrol Basic” frequency inverters (also for parameterization and operation of ECblue fans).
The basic frequency inverters without integrated display have a slot for AM-MODBUS or AM-Premium add-on modules. The A-G-247NW operator terminal can be connected to this by plugging add-on modules.
When using the AM-MODBUS-W or AM-Premium-W add-on modules, communication with this operator terminal can take place without cables, wirelessly, by radio.

The hand held terminal enables storing of data records and transmission of these to other devices.

Application example with basic frequency inverters

Optional connection of the hand held terminal by cable (connection by interface RS485, MODBUS RTU), or radio communication.



Technical data

- External voltage supply:
  by plug power pack (1~ 230 V, 50/60 Hz)
- Internal voltage supply:
  3 x Mignon rechargeable batteries (NIMh 1.2 V)

Equipment/properties

LC multi-function display with plain text display:
Different menu languages can be selected

1 x Mini USB interface:
voltage supply / data transfer with a PC

1 x interface RS485:
for connection to an AM-MODBUS or AM-Premium add-on module. Frequency inverters can be parameterized and operated with this. It is possible to save data records and transfer them to other frequency inverters.

Data transmission by radio:
for communication with AM-MODBUS-W or AM-Premium-W add-on module.

Hand held terminal				
Type	**Article no.**	Communication	kg	Dimensions (W x H x D) [mm]
A-G-247NW	**380090**	by cable, optionally by radio	0.37	163 x 40 x 82

Frequency inverter

1~ Fcontrol, universal controller with display and bypass main switch

The Fcontrol frequency inverters provide special advantages. Fcontrols have an all pole effective sine filter integrated which provides sinusoidal output voltage that is comparable with the standard mains. That means the frequency inverter enables reliable, demand-oriented and energy-saving control of asynchronous motors (external rotor motors, IEC standard motors) without having to take measures into consideration required by standard frequency inverters.

The advantages provided by the Fcontrol frequency inverter are:
- Operation without shielded motor feed lines
- The line length is not restricted by Fcontrol
- Operation without electromagnetic motor noises (ideal for noise sensitive areas)
- No risk to motors (they do not have to be frequency inverter compatible) since they are supplied with sinusoidal voltage that corresponds to the line voltage.

The benefits are especially advantageous in plants in which motors or fans are operated in parallel on a frequency inverter. Motors connected in parallel often mean long cable lengths which is no problem with the Fcontrol. On top of that, unshielded cables can be used.

The Fcontrol universal devices are ideal for the following applications: refrigeration, air conditioning, agriculture, general air supply and ventilation tasks, clean room technology.
Fast commissioning for typical applications in the stated sectors by selecting pre-programmed operating modes possible.

Input for sensors or speed setting through

0-10V — Setting of the desired speed through device or by external default, e.g. 0-10 V

0-30 0-50 bar — Connecting pressure sensors (refrigeration), e.g. type MBG.. sensors, measuring range 0-30 bar, 0-50 bar

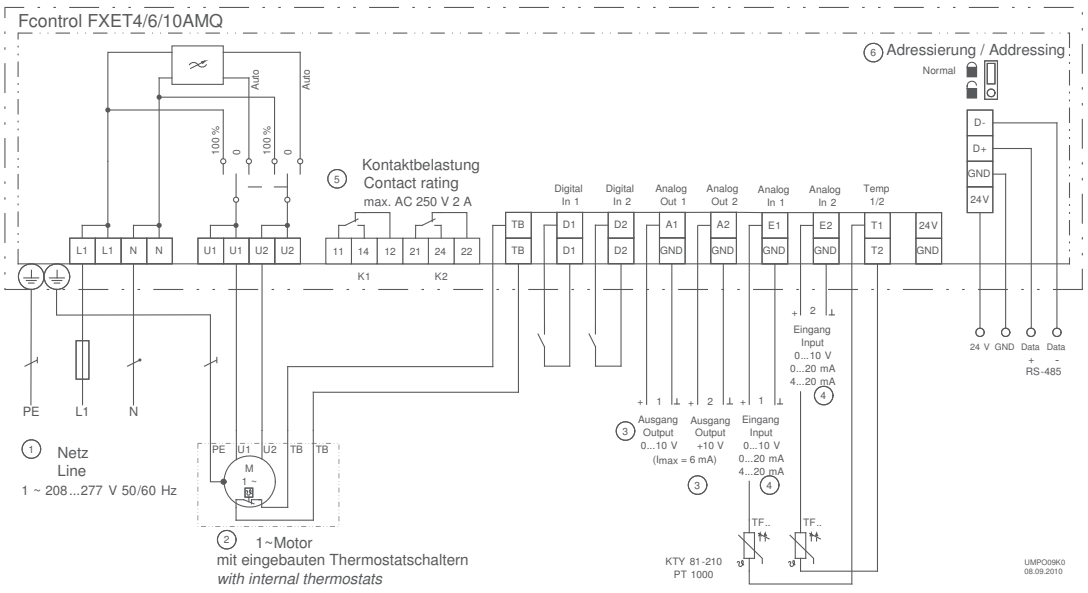
°C — Connecting temperature sensors, e.g. sensor type TF.., device measuring range -27...+75 °C, e.g. active sensor type MTG.., Sensor measuring range -10...+120 °C

△Pa — Connecting differential pressure sensors (air conditioning), e.g. type DSG.. sensors, measuring range 0-6000 Pa, acquisition of volume flows up to 65,000 m³/h

m / s — Connecting air velocity sensors, e.g MAL.. type sensors, measuring range 0-1 m/s, 0-10 m/s

CO_2 % °C — Connecting additional sensors, e.g. combination sensors, CO_2, sensor signal 0-10 V / 0-20 mA / 4-20 mA

Connection diagram



① Line
② 1~ Motor with integrated thermostats
③ Output
④ Input
⑤ Contact rating
⑥ Addressing

Technical data

- Line voltage: 1~ 208-277 V
- Mains frequency: 50/60 Hz
- Maximum output frequency: 150 Hz
- Switching freq.: 16 kHz
- Maximum ambient temperature:
  FXET4AMQ = 35 °C, FXET6/10AMQ = 40 °C (to 55 °C possible with power reduction)
- Integrated voltage supply for sensors: +24 V DC max. 120 mA
- Permissible relative humidity: 85 % non-condensing
- Interference emission compliant with EN 61000-6-3 (motor feeder cable not shielded)
- Interference immunity compliant with EN 61000-6-2
- Harmonic current emission: harmonics currents compliant with EN 61000-3-2 are guaranteed

Optional equipment

Additional versions are available in addition to the device design with universal control function:

- Version as speed controller (control via 0-10V)
- Version as temperature controller

Please see the following pages for a description.

Equipment/Characteristics

Integrated all pole effective sine filter
Phase to phase and phase to grounded conductor. That creates sinusoidal output voltage. Not necessary to take measures typical for frequency inverters such as shielded motor feed lines.

Integrated PFC (Power Factor Controller)
Active power factor adaptation for sine current consumption. That means fewer harmonic emissions.

Integrated main switch with bypass function
Switch positions: Auto (for normal operation), 0 and 100 % (100 % means the integrated unit electronics are bypassed; the applied line voltage is switched to the output).

LC multifunction display with plain text:
Various menu languages can be selected

Simple commissioning through operating modes:
Typical operating modes, e.g. for air-conditioning, refrigeration or ventilation technology can be selected.

Easy to program:
Typical settings can be made: e.g. preset a minimum speed, limit the maximum speed, inverting and limits.
Setting, e.g for 2-level operation

2 analogue inputs for sensors or preset signals:
Analogue input E1 and E2: Set through operating modes or can be manually programmed, e.g. 0-10 V, 0-20 mA, 4-20 mA
Analogue input E2: programmable, e.g. compare to Sensor 1, difference to Sensor 1, averaging, setpoint preset, setpoint adaptation (e.g., outdoor temperature dependent)

2 digital inputs D1 and D2:
Programmable, e.g., enable, switch over setpoint 1 or 2, switch over control or manual mode, switch over E1 or E2, reverse control function, limitation output, display external malfunction, reset, reverse direction of rotation

1 analogue output A1:
Set through operating mode or can be manually programmed, e.g. output signal proportional modulation, output signal proportional input signal, invertible, 10 V constant voltage, group control

2 digital outputs (relays) K1 and K2:
Set through operating modes or can be manually programmed, e.g. operating indication, fault indication, limits, external fault on digital input, enable external devices such as heating, shutters, group control fans, etc.

Integrated motor protection function:
Connection facilities for thermistors or alternative for thermostats (TB or TP).

Interface RS485 MODBUS RTU:
Integration into bus system

Settings protection / memory for settings:
Enable protect settings from unauthorised access, restore implemented settings

Event memory:
Query past events, operating times etc.

Fcontrol, universal controller with display and bypass main switch

Line	Type	Article no.	I_B* [A]	Max. line fuse [A]	Max. heat dissipation [W]	Protection class	kg	Dimensions (W x H x D) [mm]
1~ 208-277 V 50/60 Hz	FXET4AMQ	308134	4.0	6	57	IP54	3.4	240 x 284 x 132
	FXET6AMQ	308157	6.0	10	102	IP54	5.7	250 x 302 x 212
	FXET10AMQ	308136	10.0	16	130	IP54	6.8	250 x 302 x 212

* Rated current at 230 V and maximum ambient temperature

Frequency inverter

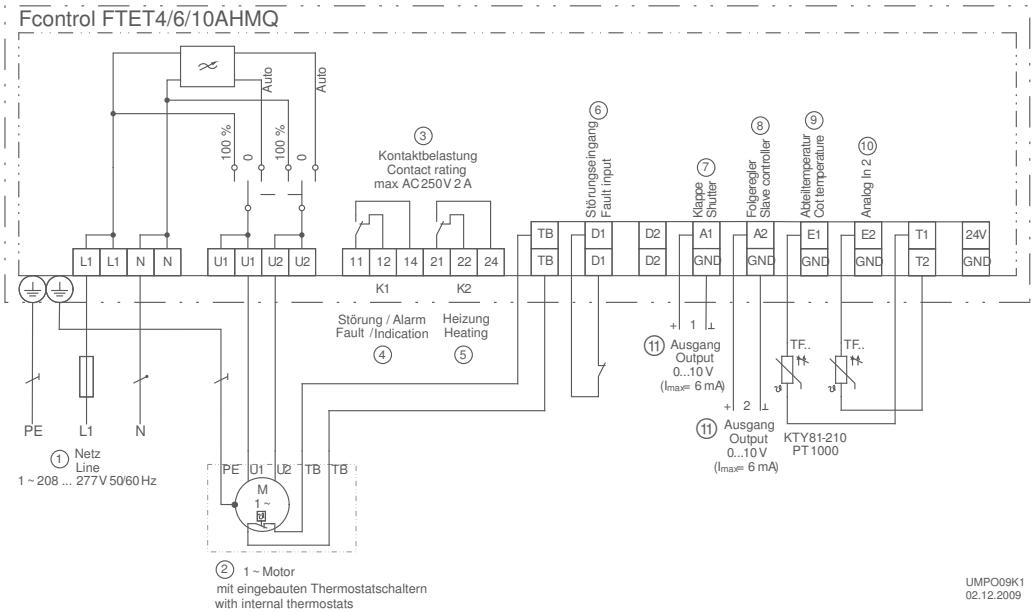
1~ Fcontrol, temperature controller with display and bypass main switch

The 1~ Fcontrol frequency inverters are available in a version as temperature controllers.
A temperature sensor type TFR (room temperature sensor IP54) is included in the scope of delivery.
With their integrated inputs and outputs and presets, these devices are ideal for climate-control in stables in the agricultural sector.
Classic temperature dependent air supply and ventilation tasks, for example ventilating a machine room, are also perfectly possible.

Input for sensors or speed setting through

Connecting temperature sensors,
Sensor for Input 1, TFR included in scope of delivery
Sensor for Input 2, optional

Connection diagram



① Line
② 1~ Motor with integrated thermostats
③ Contact rating
④ Fault/Alarm
⑤ Heating
⑥ Fault input
⑦ Shutter
⑧ Slave controlle
⑨ Compartment temperaturer
⑩ Analogue In 2
⑪ Output

Technical data

- Line voltage: 1~ 208-277 V
- Mains frequency 50/60 Hz
- Maximum output frequency: 150 Hz
- Switching frequency: 16 kHz
- Maximum ambient temperature:
  FTET4Q = 35 °C, FTET6/10Q = 40 °C (up to 55 °C with power reduction feasible)
- Permissible relative humidity 85 % non-condensing
- Interference emission: compliant with EN 61000-6-3 (motor feeder cable not shielded)
- Interference immunity: compliant with EN 61000-6-2
- Harmonics current emission: harmonics current compliant with EN 61000-3-2 are guaranteed

Equipment / Characteristics

Integrated all pole effective sine filter
Phase to phase and phase to grounded conductor. That generates sinusoidal output voltage. Typical frequency inverter measures such as shielded motor feed lines are not necessary.

Integrated PFC (Power Factor Controller)
Active power factor adaptation for sinusoidal current consumption which means reduced harmonic current emission.

Integrated main switch with bypass function
Switch positions: Auto (for normal operation), 0 and 100 % (100 % means the integrated device electronics are bypassed; the applied mains voltage is switched to the output)

LC multifunction display with plain text
Various menu languages can be selected

Simple programming
Setpoint range 0-40 °C. Preset a minimum speed, limit the maximum speed. Message if measured temperatures are exceeded or undercut. Second control circuit with separate settings for 0-10 V output, e.g., control of a ventilation shutter, etc. Separate adjustment of Relay K2 to control, e.g., a heater.

2 analogue inputs for temperature sensors
A room temperature sensor TFR in IP54 is included in the delivery scope. A second sensor, for example to register the supply air temperature, can be optionally connected.

1 digital input
Input D1 connect an external fault

2 digital outputs (relay) K1 and K2
Relay K1: Fault message relay, reports excess or subnormal temperature. Relay K2: Control, e.g. a heater.

Integrated motor protection function
Connection facility for thermostat „TB“

Memory for settings
Restore implemented settings

Event memory
For minimum and maximum temperature values, alarms

Fcontrol, temperature controller with display and bypass main switch								
Line	Type	Article no.	I_B* [A]	Max. line fuse [A]	Max. heat dissipation [W]	Protection class		Dimensions (W x H x D) [mm]
1~ 208-277 V 50/60 Hz	FTET4AHMQ	308131	4.0	6	57	IP54	3.0	240 x 284 x 132
	FTET6AHMQ	308132	6.0	10	102	IP54	5.7	250 x 302 x 212
	FTET10AHMQ	308133	10.0	16	130	IP54	6.8	250 x 302 x 212

* Rated current at 230 V and maximum ambient temperature

Frequency inverter

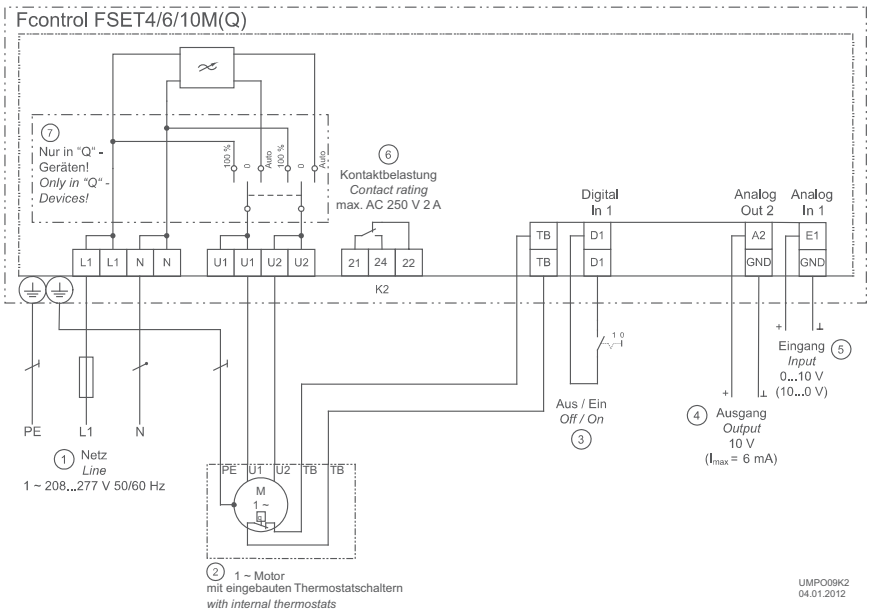
1~ Fcontrol, speed controller optional with bypass main switch

The Fcontrol 1~ frequency inverters are available as simple speed controllers for 0-10 V control. No display is integrated in this version. A main switch (Auto-0-100 %) is optional. These versions can be used universally. The speed setting can also be made by an upstream controller, for example with a ZIEHL-ABEGG control module from the UNIcon product family. Alternatively, the speed setting can be undertaken manually with a potentiometer. Motors or fans can also be operated with fixed set speeds or in 2-stage mode.

Input for sensors or speed setting through

Setting of the desired speed through device or by external default, e.g. 0-10 V

Connection diagram



① Line
② 1~ Motor with integrated thermostats
③ Off/On
④ Output
⑤ Input
⑥ Contact rating
⑦ Only in "Q"-Devices

Technical data

- Line voltage: 1~ 208-277 V
- Mains frequency 50/60 Hz
- Maximum output frequency: 150 Hz
- Switching frequency: 16 kHz
- Maximum ambient temperature:
  FSET4Q = 35 °C, FSET6/10Q = 40 °C (up to 55 °C with power reduction feasible)
- Integrated voltage supply for potentiometer: + 10 V DC max. 6 mA (short-circuit proof)
- Permissible relative humidity 85 % non-condensing
- Interference emission compliant with EN 61000-6-3 (motor feed line not shielded)
- Interference immunity compliant with EN 61000-6-2
- Harmonics current emission: harmonics current compliant with EN 61000-3-2 are guaranteed

Optional equipment

Devices with integrated bypass main switch
Switch positions:
Auto (for speed control mode), 0 and 100% (100% = the integrated device electronics are bypassed, the applied line voltage is switched to the output)

Equipment / Characteristics

Integrated all pole effective sine filter
Phase to phase and phase to grounded conductor thus producing sinusoidal output voltage. Typical measures for frequency inverters such as shielded motor feeder cables are not necessary.

Integrated PFC (Power Factor Controller)
Active power factor adaptation for sinusoidal current consumption, resulting in lower harmonic current emissions.

1 analogue input for speed preset
Input E1 for 0-10 V setpoint signal or 10-0 V depending on device version

1 digital input
Input D1 for enable (standby), for external reset (motor fault)

1 digital output (relay)
Floating change-over contact for error message

Integrated motor protection function
Connection facility for „TB“ thermostat

Fcontrol, speed controller optional with bypass main switch									
Line	Input [V]	Type	Article no.	I_B* [A]	Max. line fuse [A]	Max. heat dissipation [W]	Protection class	kg	Dimensions (W x H x D) [mm]
1~ 208-277 V 50/60 Hz	0-10	FSET4M	308128	4.0	6	65	IP54	2.7	240 x 284 x 115
		FSET6M	308156	6.0	10	103		5.4	250 x 302 x 195.5
		FSET10M	308130	10.0	16	187		6.6	250 x 302 x 212
		FSET4MQ	308154	4.0	6	65		2.7	240 x 284 x 132
		FSET6MQ	308155	6.0	10	103		5.4	250 x 302 x 212
		FSET10MQ	308187	10.0	16	187		6.6	250 x 302 x 212
	10-0	FSET4M	308158	4.0	6	65		2.7	240 x 284 x 115
		FSET6M	308159	6.0	10	103		5.4	250 x 302 x 212
		FSET10M	308160	10.0	16	187		6.6	250 x 302 x 212
		FSET4MQ	308248	4.0	6	65		2.7	240 x 284 x 132
		FSET6MQ	308249	6.0	10	103		5.4	250 x 302 x 212
		FSET10MQ	308250	10.0	16	187		6.6	250 x 302 x 212

* Rated current at 230 V and maximum ambient temperature

Frequency inverter

3~ Fcontrol, universal controller with display

The Fcontrol frequency inverters provide special advantages. Fcontrols have an all pole effective sine filter integrated which provides sinusoidal output voltage that is comparable with the standard mains. That means the frequency inverter enables reliable, demand-oriented and energy-saving control of asynchronous motors (external rotor motors, IEC standard motors) without having to take measures into consideration required by standard frequency inverters.

The advantages provided by the Fcontrol frequency inverter are:
- Operation without shielded motor feed lines
- The line length is not restricted by Fcontrol
- Operation without electromagnetic motor noises (ideal for noise sensitive areas)
- No risk to motors (they do not have to be frequency inverter compatible) since they are supplied with sinusoidal voltage that corresponds to the line voltage.

The benefits are especially advantageous in plants in which motors or fans are operated in parallel on a frequency inverter. Motors connected in parallel often means long cable lengths which is no problem with the Fcontrol. On top of that, unshielded cables can be used.

The Fcontrol universal devices are ideal for the following applications: refrigeration, air conditioning, agriculture, general air supply and ventilation tasks, clean room technology.
Fast commissioning for typical applications in the stated sectors by selecting pre-programmed operating modes possible.

Input for sensors or speed setting through

0-10V — Setting of the desired speed through device or by external default, e.g. 0-10 V

0-30 0-50 bar — Connecting pressure sensors (refrigeration), e.g. type MBG.. sensors, measuring range 0-30 bar, 0-50 bar

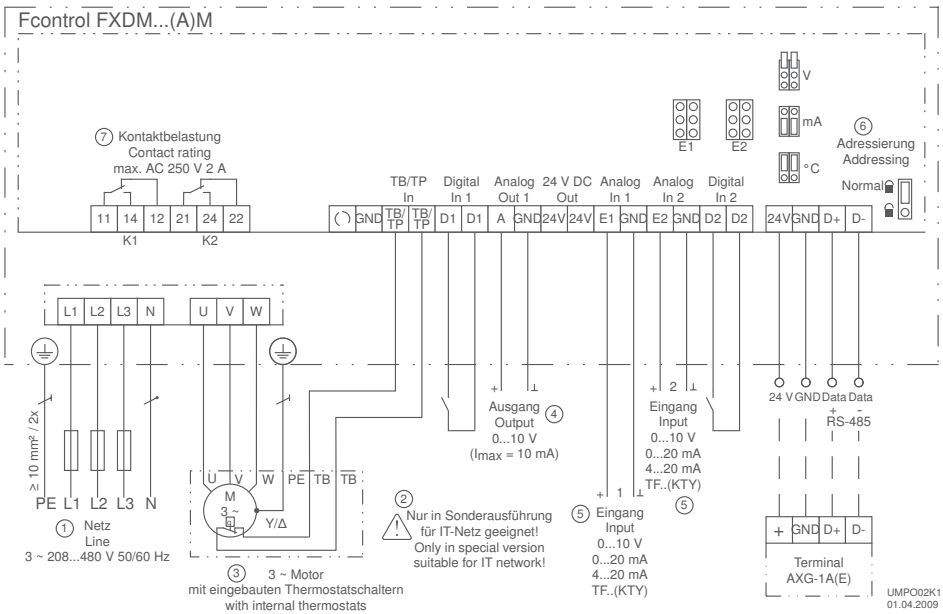
°C — Connecting temperature sensors, e.g. sensor type TF.., device measuring range -27...+75 °C, e.g. active sensor type MTG.., Sensor measuring range -10...+120 °C

△Pa — Connecting differential pressure sensors (air conditioning), e.g. type DSG.. sensors, measuring range 0-6000 Pa, acquisition of volume flows up to 65,000 m³/h

m / s — Connecting air velocity sensors, e.g MAL.. type sensors, measuring range 0-1 m/s, 0-10 m/s

CO_2 % °C — Connecting additional sensors, e.g. combination sensors, CO_2, sensor signal 0-10 V / 0-20 mA / 4-20 mA

Connection diagram



① Line
② Only in special version suitable for IT network!
③ Motor feeder cable
④ Output
⑤ Input
⑥ Addressing
⑦ Contact rating

Technical data

- Line voltage: 3~ 208-480 V or 1~ 208-277 V (with 3~ 230-V output)
- Mains frequency: 50/60 Hz
- U_{Motor}: 95 % U_{Mains}
- Maximum output frequency: 100 Hz (for FXDM22/50 max. 60 Hz)
- Switching freq.: 16 kHz
- Maximum ambient temperature: +40 °C (up to +55 °C possible with power reduction)
- Integrated voltage supply for sensors: +24 V, max. 120 mA
- Permissible relative humidity 85 % non-condensing
- Interference emission compliant with EN 61000-6-3 (Motor feeder cable not shielded)
- Interference immunity compliant with EN 61000-6-2

Equipment/Characteristics

Integrated all pole effective sine filter
Phase to phase and phase to grounded conductor which means sinusoidal output voltage. Measures typical for frequency inverters such as shielded motor feed lines are not required.

LC-multifunction display with plain text:
Various menu languages can be selected

Simple commissioning through operating modes:
Typical operating modes, e.g. for air-conditioning, refrigeration or ventilation technology can be selected.

Easy to program:
Typical settings can be made: e.g., default a minimum speed, limit the maximum speed, inverting and limits. Setting, e.g. for 2-stage mode

2 analogue inputs for sensors or setpoint signals:
Analogue input E1 and E2: Setting through operating modes or manually programmable, e.g. 0-10 V, 0-20 mA, 4-20 mA
Analogue input E2: programmable, e.g. comparison to Sensor 1, difference to Sensor 1, average calculation, setpoint input, setpoint adjustment (e.g. dependent on outdoor temperature)

Two digital inputs. D1 and D2:
Programmable, e.g. enable, switchover Setpoint 1 or 2, switchover control or manual operation, switchover E1 or E2, reverse control function, limit output, display external fault, reset, reverse the rotary direction

1 analogue output A1:
Setting through operating modes or manually programmable, e.g., output signal proportional modulation, output signal proportional input signal, invertible, 10 V constant voltage, group control

2 digital outputs (relays) K1 and K2:
Setting through operating modes or manual programming, e.g. operating status, limits, external fault on digital input, enabling external devices, e.g. heating, dampers, group control of fans, etc.

Integrated motor protection function:
Connection facility for PTC thermistors or alternatively thermostats (TB or TP).

Interface RS485 MODBUS RTU:
Integration into bus system

Setting protection / memory for settings:
Enable settings protection from unauthorised access, restore implemented settings

Event memory:
Query events that have occurred, operating times, etc.

Optional equipment

Expansion module for frequency inverter

- IO-add-on module type Z-Module-B, Art. no. **380052**
  if the integrated inputs and outputs are not sufficient, add more inputs and outputs with the Z-Module-B. They can also be programmed:
  - 1 analogue input
  - 1 analogue output
  - 3 digital inputs
  2 digital outputs (relay)
- LON® Expansion module type Z-Module-L, Art. no **380086**
  For integration into a bus system LON® via 2-conductor wire
- Ethernet add-on module type Z-Module-ET, Art. no.**380055**
  For integration into an industrial ethernet network with TCP/IP protocols (MODBUS-TCP)

Frequency inverter

3~ Fcontrol, universal controller with display

Fcontrol, universal controller									
Line	Type	Article no.	I_B* (40 °C) [A]	I_B** (50 °C) [A]	Max. line fuse [A]	Max. heat dissipation [W]	Protection class		Dimensions (W x H x D) [mm]
3~ 208 - 480 V 50/60 Hz	Fcontrol, universal controller with display								
	FXDM2.5AM	**308099**	2.5	2	6	50	IP54	3.3	240 x 284 x 115
	FXDM5AM	**308138**	5	5	10	100	IP54	7.2	250 x 302 x 195.5
	FXDM8AM	**308140**	8	8	10	150	IP54	7.9	
	FXDM10AM	**308142**	10	10	16	210	IP54	8.2	
	FXDM14AM	**308144**	14	12	16	310	IP54	8.7	
	FXDM18AM	**308174**	18	16	20	400	IP54	14.2	280 x 355 x 239
	FXDM22AM	**308108**	22	18	25	520	IP54	14.5	
	FXDM32AM	**308009**	32	32	35	700	IP54	29.6	386 x 524 x 283
	FXDM40AM	**308177**	40	40	50	790	IP54	32.7	
	FXDM50AM	**308183**	50	50	63	910	IP54	32.8	
	FXDM32AME	**308008**	32	32	35	700	IP20	33.1	343 x 600 x 280
	FXDM40AME	**308176**	40	40	50	790	IP20	36.6	
	FXDM50AME	**308182**	50	50	63	910	IP20	36.7	
	Fcontrol, universal controller without display (external AXG operating terminal required)								
	FXDM5M	**308137**	5	5	20	400	IP54	7	250 x 302 x 195.5
	FXDM8M	**308139**	8	8	10	150	IP54	7.7	
	FXDM10M	**308141**	10	10	16	210	IP54	8	
	FXDM14M	**308143**	14	12	16	310	IP54	8.5	
	FXDM18M	**308173**	18	16	20	400	IP54	14.1	280 x 355 x 239
	FXDM22M	**308115**	22	18	25	520	IP54	14.5	
	FXDM32M	**308096**	32	32	35	700	IP54	29.6	386 x 524 x 283
	FXDM40M	**308178**	40	40	50	790	IP54	32.8	
	FXDM50M	**308184**	50	50	63	910	IP54	32.8	
	FXDM32ME	**308007**	32	32	35	700	IP20	33.1	343 x 600 x 280
	FXDM40ME	**308175**	40	40	50	790	IP20	36.6	
	FXDM50ME	**308181**	50	50	63	910	IP20	36.7	

* Rated current at 400 V line voltage and 40 °C ambient temperature

** Rated current at 400 V line voltage and 50 °C ambient temperature

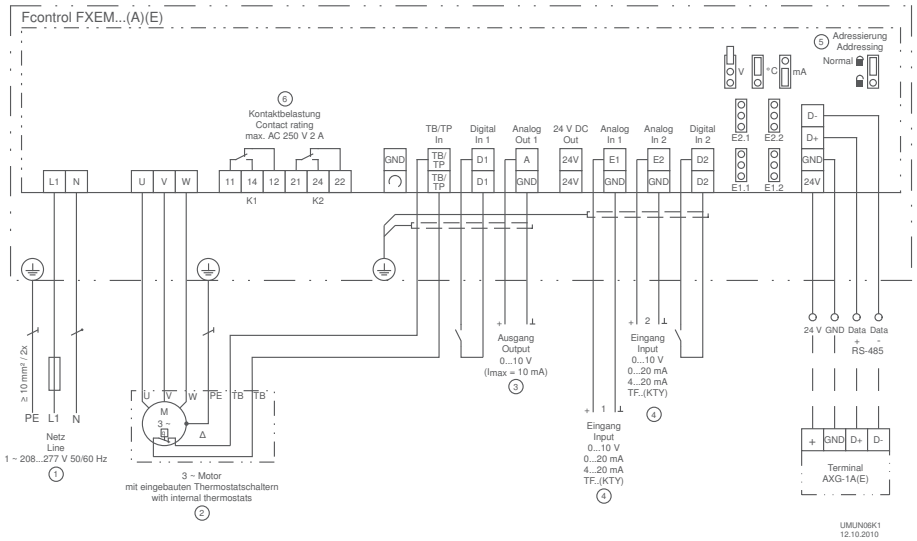
Mains supply 1~ 230V

Fcontrol, universal controller									
Line	**Type**	**Article no.**	I_B* (40 °C) [A]	I_B** (50 °C) [A]	Max. line fuse [A]	Max. heat dissipation [W]	Protection class	kg	Dimensions (W x H x D) [mm]
1~ 208 - 277 V 50/60 Hz	Fcontrol, universal controller with display								
	FXEM6AM	**308198**	6	5.2	10	220	IP54	6.6	250 x 302 x 195,5

* Rated current at 230 V line voltage and 40 °C ambient temperature

** Rated current at 230 V line voltage and 50 °C ambient temperature

Connection diagram



① Line
② 3~ motor with built-in thermostats
③ Output
④ Input
⑤ Addressing
⑥ Contact load

Frequency inverter

3~ Fcontol Basic, modularly extendable speed controllers

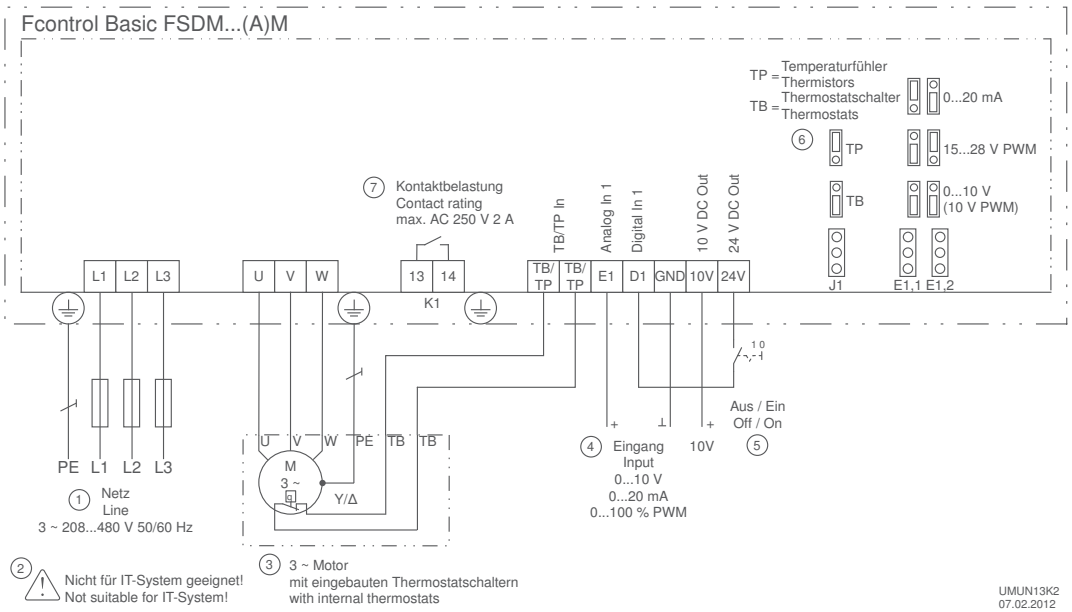
The frequency inverters Fcontrol 3~ are also available as “Basic” versions. The devices are speed controllers in this version and can be controlled, for example, by 0-10 V. The frequency inverters can be extended by pluggable add-on modules if necessary.
The Fcontrol Basic can be integrated into MODBUS RTU networks, for example, by add-on modules. Functional extension as a control unit is also possible by add-on modules.

Input for sensors or speed setting through

Setting of the desired speed through device or by external default, e.g. 0-10 V

Add-on modules for functional extension

Connection diagram



① Line
② Only suitable for IT line in special version!
③ 3~ motor with built-in thermostats
④ Input
⑤ Off / On
⑥ TP = thermistor
TB = thermostat
⑦ Contact load

Technical data

- Line voltage: 3~ 208-480 V
- Line frequency: 50/60 Hz
- Maximum output frequency:
  50 Hz (1-120 Hz optional)
- Switching frequency: 16 kHz
- Maximum ambient temperature: +40 °C
  (up to +55 °C with power reduction possible)
- Interference emission with unshielded motor cable according to EN 61000-6-3 (domestic)
- Interference immunity according to EN 61000-6-2 (industry)

Equipment/properties

Integrated all-pole effective sinefilter
Phase to phase and phase to protective earth. Thus sinusoidal output voltage. Frequency inverter typical measures such as shielded motor cables are not necessary.

1 analog input for speed setting:
Analog input E1: Setting by jumper to desired setting signal: 0-10 V, 0-20 mA or PWM

1 digital input:
D1 - 24 V: Enable function On/Off

1 potential-free fault indication contact:
The contact drops out in case of a fault. Max. load 250 V, 2 A.

Integrated motor protection function:
Connection possibility for thermostats „TB“ or thermistors „TP“.

Optional equipment

Add-on modules for functional extension
- Add-on module AM-MODBUS, Article No. 349045 and AM-MODBUS-W, Article No. 349050:
  - Integration into a MODBUS RTU network with the possibility of automatic addressing by a UNIcon control module with MODBUS-Master function.
  - Connection of an A-G-247-NW operator terminal.
- Additional function in the AM-MODBUS-W:
  - Wireless programming by an A-G-247-NW operator terminal via wireless interface
- Add-on module AM-Premium, Article No. 349046 and AM-Premium-W, Article No. 349051:
  - Extension by control functions
  - Connection of sensors
  - Integration into a MODBUS RTU network. Manual addressing in the IO Setup.
  - Additional 0-10 V output for Master-Slave connection
- Additional function in AM-Premium-W:
  - Wireless programming by an A-G-247-NW operator terminal via wireless interface

Fcontrol Basic without display								
Line	**Type**	**Article no.**	I_B*	Max. line fuse	Max. heat dissipation	Protection class	kg	Dimensions (W x H x D)
			[A]	[A]	[W]			[mm]
3~ 208-480 V 50/60 Hz	**FSDM2.5M**	**308251**	2.5	6	50	IP54	2.7	240 x 284 x 115
	FSDM5M	**308238**	5.0	10	90		5.4	250 x 302 x 195.5
	FSDM8M	**308239**	8.0	10	140		6.3	
	FSDM10M	**308262**	10.0	16	200		6.8	
	FSDM14M	**308263**	14.0	16	300		6.9	

* Rated current at 400 V line voltage and 40 °C ambient temperature

Frequency inverter

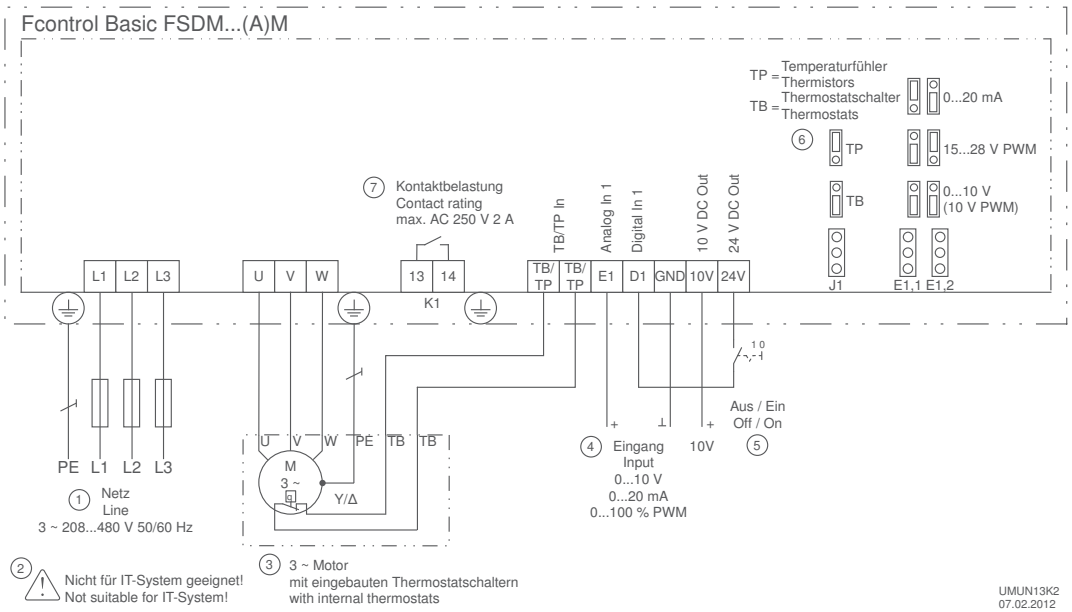
3~ Fcontrol Basic, Speed controller with display

The frequency inverters Fcontrol 3~ are also available as “Basic” versions with integrated display. The devices are speed controllers in this version and can be controlled, for example, by 0-10 V. Functional extension with add-on modules is not possible with the “Basic” versions with display.
Speeds or motor parameters can be set, for example, with the display.

Input for sensors or speed setting through

Setting of the desired speed through device or by external default, e.g. 0-10 V

Connection diagram



① Line
② Only suitable for IT line in special version!
③ 3~ motor with built-in thermostats
④ Input
⑤ Off / On
⑥ TP = thermistor
TB = thermostat
⑦ Contact load

Technical data

- Line voltage: 3~ 208-480 V
- Line frequency: 50/60 Hz
- Maximum output frequency: 120 Hz
- Switching frequency: 16 kHz
- Maximum ambient temperature: +40 °C
  (up to +55 °C with power reduction possible)
- Interference emission with unshielded motor cable according to EN 61000-6-3 (domestic)
- Interference immunity according to EN 61000-6-2 (industry)

Equipment/properties

Integrated all-pole sinefilter
Phase to phase and phase to protective earth. Thus sinusoidal output voltage. Frequency inverter typical measures such as shielded motor cables are not necessary.

LC multi-function display with plain text display:
Setting of desired values: speeds, motor parameters. Display of modulation, operating states etc.

1 analog input for speed setting:
Analog input E1: Setting by jumper to desired setting signal: 0-10 V, 0-20 mA or PWM

1 digital input:
D1 - 24 V: Enable function On/Off

1 potential-free fault indication contact:
The contact drops out in case of a fault. Max. load 250 V, 2 A.

Integrated motor protection function:
Connection possibility for thermostats „TB“ or thermistors „TP“.

Fcontrol Basic with display								
Line	**Type**	**Article no.**	I_B* [A]	Max. line fuse [A]	Max. heat dissipation [W]	Protection class	m [kg]	Dimensions (W x H x D) [mm]
3~ 208-480 V 50/60 Hz	**FSDM2.5AM**	**308252**	2.5	6	50	IP54	2.9	240 x 284 x 115
	FSDM5AM	**308240**	5.0	10	90		5.6	250 x 302 x 195.5
	FSDM8AM	**308241**	8.0	10	140		6.5	
	FSDM10AM	**308260**	10.0	16	200		7.0	
	FSDM14AM	**308261**	14.0	16	300		7.1	

* Rated current at 400 V line voltage and 40 °C ambient temperature

Electronic voltage controllers 1~

Acontrol, universal controller with display and bypass main switch

Most ZIEHL-ABEGG external rotor motors can be voltage controlled. For simple and cost-effective speed control of these motors and fans, electronic voltage controllers are available.

For the various applications in refrigeration, air-conditioning and general ventilation technology we supply universal controllers from the Acontrol product family.

These universal controllers provide a facility for controlling temperature, pressure (for example, refrigerant pressure in cooling devices), differential pressure in ventilation systems and other physical factors.

These units have a multifunctional display used for programming and to display the measured values. A bypass main switch is integrated which allows bypassing the internal device electronics. In the bypass position the applied mains voltage is switched directly to the output.

The Acontrol universal devices are ideal for the following applications: refrigeration, air conditioning, agriculture, general air supply and ventilation, clean room technology.
Quick commissioning is facilitated for typical applications in the stated areas by selecting pre-programmed operating modes.

Input for sensors or speed setting through

0-10V — Setting of the desired speed through device or by external default, e.g. 0-10 V

0-30 0-50 bar — Connecting pressure sensors (refrigeration), e.g. type MBG.. sensors, measuring range 0-30 bar, 0-50 bar

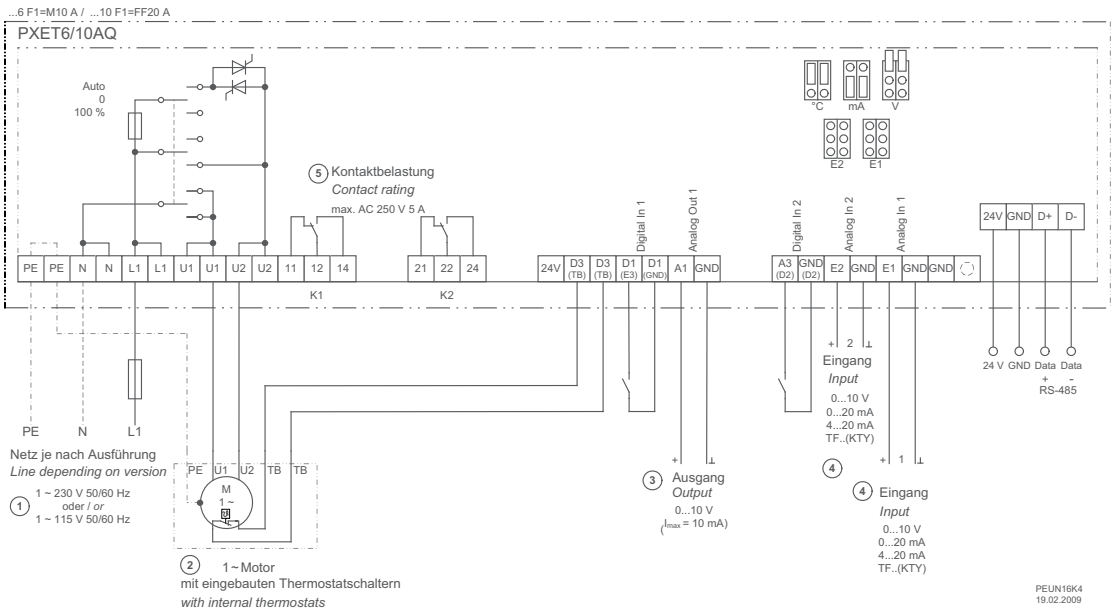
°C — Connecting temperature sensors, e.g. sensor type TF.., device measuring range -27...+75 °C, e.g. active sensor type MTG.., Sensor measuring range -10...+120 °C

△Pa — Connecting differential pressure sensors (air conditioning), e.g. type DSG.. sensors, measuring range 0-6000 Pa, acquisition of volume flows up to 65,000 m³/h

m / s — Connecting air velocity sensors, e.g MAL.. type sensors, measuring range 0-1 m/s, 0-10 m/s

CO_2 % °C — Connecting additional sensors, e.g. combination sensors, CO_2, sensor signal 0-10 V / 0-20 mA / 4-20 mA

Connection diagram



① Line
② 1~ Motor with integrated thermostats
③ Output
④ Input
⑥ Contact load

Technical data

- Line voltage: 1~ 230 V
- Mains frequency: 50/60 Hz
- Infinitely controllable output voltage: 0-100 %
- Maximum ambient temperature: + 40 °C (up to +55 °C with power reduction possible)
- Integrated voltage supply for sensors: +24 V, max. 250 mA
- Permissible relative humidity: 85% non-condensing
- Interference emission compliant with EN 61000-6-3 (motor feeder cable not shielded)
- Interference immunity compliant with EN 61000-6-2

Equipment/Characteristics:

LC multifunction display with plain text:
Various menu languages can be selected

Simple commissioning through operating modes:
Typical operating modes, e.g. for air-conditioning, refrigeration or ventilation technology can be selected.

Easy to program:
Typical settings can be made: e.g., default a minimum speed, limit the maximum speed, inverting and limits. Setting, e.g. for 2-stage mode

2 analogue inputs for sensors or setpoint signals:
Analogue input E1 and E2: Setting through operating modes or manually programmable, e.g. 0-10 V, 0-20 mA, 4-20 mA
Analogue input E2: programmable, e.g. comparison to Sensor 1, difference to Sensor 1, average calculation, setpoint input, setpoint adjustment (e.g. dependent on outdoor temperature)

2 digital inputs D1 and D2:
Programmable, e.g., enable function, switching nominal value 1 or 2, switching control or manual operation, switching E1 or E2, reverse control function, limitation output, display external malfunction, reset, reverse the rotary direction

1 analogue output A1::
Setting through operating modes or manually programmable, e.g. output signal proportional modulation, output signal proportional input signal, invertible, 10 V constant voltage, group control

2 digital outputs (relays) K1 and K2:
Setting through operating modes or manual programming, e.g. operating status, limits, external fault on digital input, enabling external devices, e.g. heating, dampers, group control of fans, etc.

Integrated motor protection function:
Connection option for thermostats „TB“.

Interface RS485 MODBUS RTU
Integration into bus system

Settings protection:
Enable settings protection from unauthorised access, restore implemented settings

Event memory:
Query events that have occurred, operating times, etc.

Acontrol, universal controller with display and bypass main switch

Line	Type	Article no.	I_B* [A]	Max. line fuse [A]	Max. heat dissipation [W]	Protection class	kg	Dimensions (W x H x D) [mm]
1~ 230 V 50/60 Hz	PXET6AQ	303610	6.0	10	20	IP54	1.4	223 x 200 x 131
	PXET10AQ	303611	10.0	16	40	IP54	2.4	240 x 284 x 140.5

* Rated current 230 V mains voltage

Electronic voltage controllers 1~

Acontrol, universal controller with bypass main switch

A rotary knob is integrated into the front of these devices for speed or setpoint presetting. The illuminated display integrated into the rotary knob indicates the operating condition

A bypass main switch is integrated which facilitates bypassing the internal device electronics. In the bypass position, the applied mains voltage is switched directly to the output.

Input for sensors or speed setting through

0-10V — Setting of the desired speed through device or by external default, e.g. 0-10 V

0-30 0-50 bar — Connecting pressure sensors (refrigeration), e.g. type MBG.. sensors, measuring range 0-30 bar, 0-50 bar

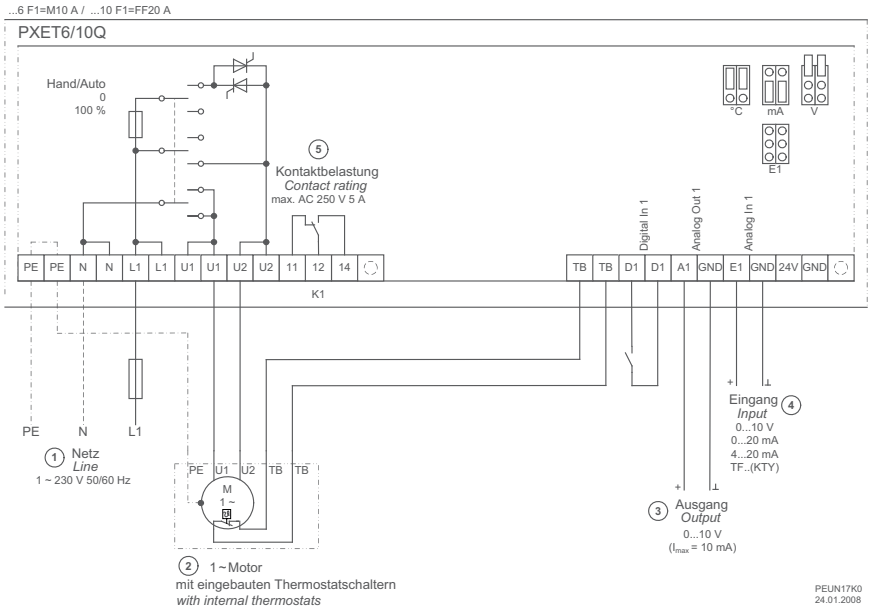
°C — Connecting temperature sensors, e.g. sensor type TF.., device measuring range -27...+75 °C, e.g. active sensor type MTG.., Sensor measuring range -10...+120 °C

△Pa — Connecting differential pressure sensors (air conditioning), e.g. type DSG.. sensors, measuring range 0-6000 Pa, acquisition of volume flows up to 65,000 m³/h

m / s — Connecting air velocity sensors, e.g MAL.. type sensors, measuring range 0-1 m/s, 0-10 m/s

CO_2 % °C — Connecting additional sensors, e.g. combination sensors, CO_2, sensor signal 0-10 V / 0-20 mA / 4-20 mA

Connection diagram



① Line
② 1~ Motor with integrated thermostats
③ Output
④ Input
⑤ Contact load

Technical data

- Line voltage: 1~ 230 V
- Mains frequency: 50/60 Hz
- Infinitely controllable output voltage: 0-100 %
- Maximum ambient temperature: + 40 °C (up to +55 °C with power reduction possible)
- Integrated voltage supply for sensors: +24 V, max. 250 mA
- Permissible relative humidity: 85% non-condensing
- Interference emission compliant with EN 61000-6-3 (motor feeder cable not shielded)
- Interference immunity compliant with EN 61000-6-2

Equipment/Characteristics

Easy commissioning:
Accomplished through dip switches, potentiometer or jumper.
Set the dip switch to set the desired device function (operating modes: speed controller, temperature or pressure controller). The setpoint preset is set with the potentiometer.

One analogue input for sensors or default signal
Analogue input E1: Set/enable by selecting the operating modes (dip switch, jumper) e.g. 0-10 V, 4-20 mA. When operating as controller connection of corresponding sensors.

1 digital input D1
For connecting an external, floating contact.
Enable function On/Off, external reset after motor fault, reverse the control function, e.g. heating, cooling

1 analogue output A1
Output signal proportional modulation or constant voltage +10 V (max. 10 mA) to connect an external potentiometer for speed preset

1 floating alarm relay K1:
Relay drops in case of fault. Max. load with 250 V, 5 A.

Integrated motor protection function
Connection facility for thermostat „TB“

Acontrol, Universalregelgerät mit Bypass Hauptschalter

Line	Type	Article no.	I_B* [A]	Max. line fuse [A]	Max. heat dissipation [W]	Protection class		Dimensions (W x H x D) [mm]
1~ 230 V 50/60 Hz	PXET6Q	303612	6.0	10	20	IP54	1.3	223 x 200 x 131
	PXET10Q	303613	10.0	16	40	IP54	2.3	240 x 284 x 132

* Rated current 230 V mains voltage

Electronic voltage controllers 1~

Acontrol, universal controller with high rated current

These versions do not have any controls on the front of the device. Commissioning is through internal dip switches, potentiometer or jumper. Along with higher rated current, these devices also have a wide voltage range.

Input for sensors or speed setting through

Setting of the desired speed through device or by external default, e.g. 0-10 V

Connecting pressure sensors (refrigeration), e.g. type MBG.. sensors, measuring range 0-30 bar, 0-50 bar

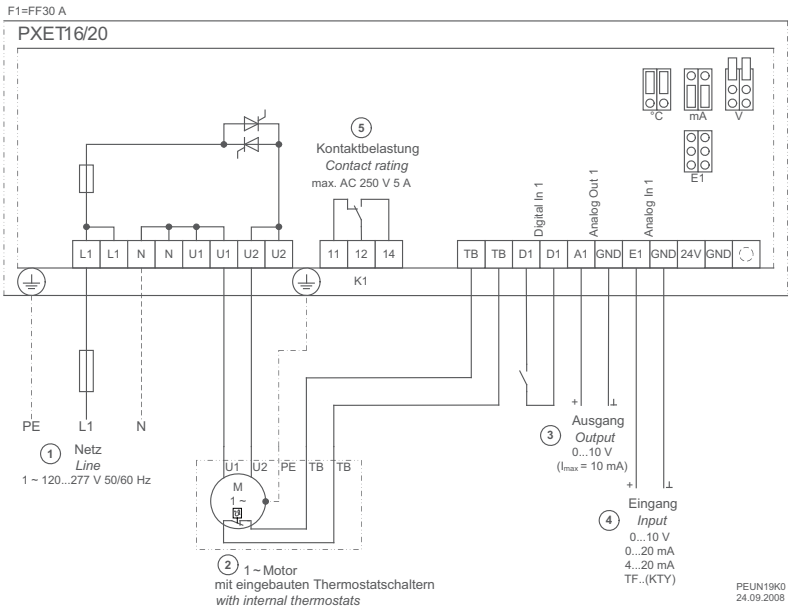
Connecting temperature sensors, e.g. sensor type TF.., device measuring range -27...+75 °C, e.g. active sensor type MTG.., Sensor measuring range -10...+120 °C

Connecting differential pressure sensors (air conditioning), e.g. type DSG.. sensors, measuring range 0-6000 Pa, acquisition of volume flows up to 65,000 m³/h

Connecting air velocity sensors, e.g MAL.. type sensors, measuring range 0-1 m/s, 0-10 m/s

Connecting additional sensors, e.g. combination sensors, CO_2, sensor signal 0-10 V / 0-20 mA / 4-20 mA

Connection diagram



① Line
② 1~ Motor with integrated thermostats
③ Output
④ Input
⑤ Contact load

Technical data

- Line voltage: 1~ 120-277 V
- Mains frequency: 50/60 Hz
- Infinitely controllable output voltage: 0-100 %
- Maximum ambient temperature: +40 °C (up to + 55 °C with power reduction possible)
- Integrated voltage supply for sensors: + 24 V, max. 80 mA
- Permissible relative humidity: 85 % non-condensing
- Interference emission compliant with EN 61000-6-3 (motor cable not shielded)
- Interference immunity compliant with EN 61000-6-2

Equipment/Characteristics

Easy commissioning:
Accomplished through dip switches, potentiometer or jumper.
Set the dip switch to set the desired device function (operating modes: speed controller, temperature or pressure controller). The setpoint preset is set with the potentiometer.

One analogue input for sensors or default signal
Analogue input E1: Set/enable by selecting the operating modes (dip switch, jumper) e.g. 0-10 V, 4-20 mA. When operating as controller connection of corresponding sensors.

1 digital input D1
For connecting an external, floating contact.
Enable function On/Off, external reset after motor fault, reverse the control function, e.g. heating, cooling

1 analogue output A1
Output signal proportional modulation or constant voltage +10 V (max. 10 mA) to connect an external potentiometer for speed preset

1 floating alarm relay K1:
Relay drops in case of fault. Max. load with 250 V, 5 A.

Integrated motor protection function
Connection facility for thermostat „TB“

Acontrol, universal controller with high rated current

Line	Type	Article no.	I_B*	Max. line fuse	Max. heat dissipation	Protection class		Dimensions (W x H x D)
			[A]	[A]	[W]			[mm]
1~ 120-277 V 50/60 Hz	PXET16	303598	16.0	20	25	IP54	1.9	240 x 284 x 115
	PXET20	303599	20.0	25	30	IP54	2.0	240 x 284 x 115

* Rated current 230 V mains voltage

Electronic voltage controllers 1~

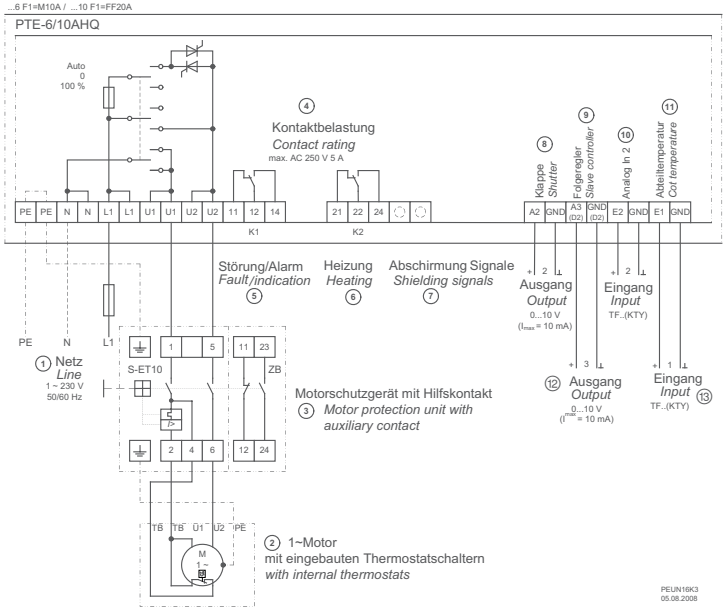
Acontrol, temperature controller with display and bypass main switch

These versions are ideal for stable climate control in agriculture or for classic temperature-dependent air supply and ventilation jobs. These devices have a multifunctional display used for programming and to display the measured values. A bypass main switch is integrated which provides a facility to bypass the internal device electronics. In the bypass position, the applied line voltage is switched directly to the output.
A room temperature sensor in IP54 is included in the scope of delivery.

Input for sensors or speed setting through

Connecting temperature sensors,
Sensor for Input 1, TFR included in scope of delivery
Sensor for Input 2, optional

Connection diagram



① Line
② 1~ Motor with integrated thermostats
③ Motor protection unit with auxiliary contact
④ Contact rating
⑤ Fault/Alarm
⑥ Heating
⑦ Shielding signals
⑧ Shutter
⑨ Slave controller
⑩ Analogue In 2
⑪ Compartment temperature
⑫ Output
⑬ Input

Technical data

- Line voltage: 1~ 230 V
- Mains frequency: 50/60 Hz
- Infinitely controllable output voltage: 0-100 %
- Maximum ambient temperature: + 40 °C (up to +55 °C with power reduction possible)
- Integrated voltage supply for sensors: +24 V, max. 250 mA
- Permissible relative humidity: 85% non-condensing
- Interference emission compliant with EN 61000-6-3 (motor feeder cable not shielded)
- Interference immunity compliant with EN 61000-6-2

Equipment/Characteristic

LC-Multifunctional display with plain text display
Various menu languages can be selected

Simple commissioning:
The device menu for the temperature control regulates the setpoints for triggering the fans, controlling a ventilation damper, triggering a heater, displaying messages in case the temperature is above or below the parameters, etc.l
Adjustable setpoint range: 0-40 °C

Input for temperature sensors:
Analogue input E1: Connection for room temperature sensor (included in scope of delivery)
Analogue input E2: Connection facility for an air-supply temperature sensor type TF…, or alternatively as a sensor for dampers or heating control possible

2 analogue outputs
Analogue output A2: to control a ventilation damper
Analogue output A3: as a follow-up controller or to control a heater.

2 digital outputs (relays) K1 and K2
K1: alarm relay, message in case the temperature is above or below set parameters.
K2: K2: Relay to controll a heater
K1 + K2 max. load with 250 V 5 A

Acontrol, function temperature controller with display and bypass main switch

Line	Type	Article no.	I_B* [A]	Max. line fuse [A]	Max. heat dissipation [W]	Protection class		Dimensions (W x H x D) [mm]
1~ 230 V 50/60 Hz	PTE-6AHQ	303606	6.0	10	20	IP54	1.5	223 x 200 x 131
	PTE-10AHQ	303607	10.0	16	40	IP54	2.5	240 x 284 x 140.5

* Rated current 230 V mains voltage

Electronic voltage controllers 1~

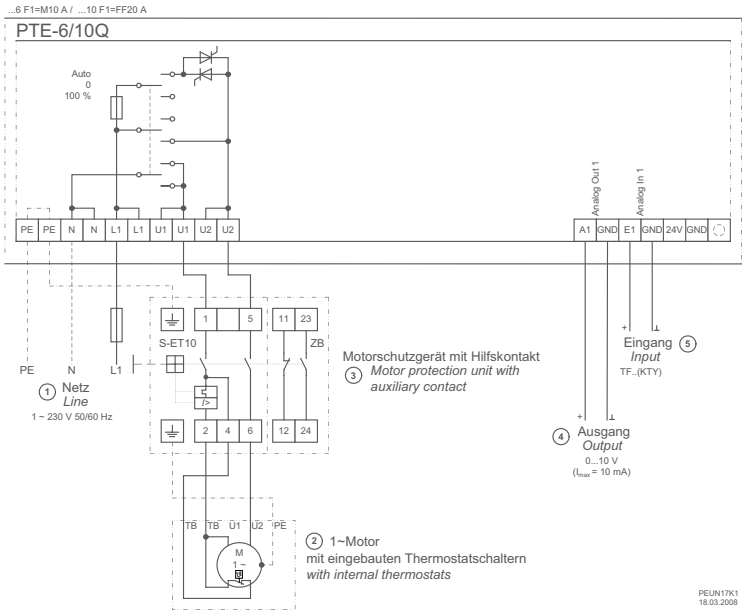
Acontrol, temperature controller with bypass main switch

These versions are ideal for stable climate control in agriculture or for classic temperature-dependent air supply and ventilation jobs. A rotary knob is integrated in the front of the device to set the setpoint temperature. The illuminated display in the rotary knob indicates the operating condition. A bypass main switch is integrated, providing a facility to bypass the internal device electronics. In the bypass position, the applied line voltage is switched directly to the output.
A room temperature sensor in IP54 is included in the scope of delivery.

Input for sensors or speed setting through

Connecting temperature sensors,
Sensor for Input 1, TFR included in scope of delivery

Connection diagram



① Line
② 1~ Motor with integrated thermostats
③ Motor protection unit with auxiliary contact
④ Output
⑤ Input

Technical data

- Line voltage: 1~ 230 V
- Mains frequency: 50/60 Hz
- Infinitely controllable output voltage: 0-100 %
- Maximum ambient temperature: + 40 °C (up to +55 °C with power reduction possible)
- Integrated voltage supply for sensors: +24 V, max. 50 mA
- Permissible relative humidity: 85% non-condensing
- Interference emission compliant with EN 61000-6-3 (motor feeder cable not shielded)
- Interference immunity compliant with EN 61000-6-2

Equipment/Characteristics

Simple commissioning:
Set the desired temperature setpoint via a rotary knob. Setpoint 0-40 °C (or alternatively -26…+ 76 °C). Additional settings possible with internal potentiometer and dip switch.

Input for temperature sensors:
Analogue input E1: Connection for room temperature sensor (included in scope of delivery)

1 analogue output A1
Control for follow-up controller

Acontrol, temperature controller with bypass main switch								
Line	Type	Article no.	I_B* [A]	Max. line fuse [A]	Max. heat dissipation [W]	Protection class		Dimensions (W x H x D) [mm]
1~ 230 V 50/60 Hz	PTE-6Q	303618	6.0	10	20	IP54	1.3	223 x 200 x 131
	PTE-10Q	303619	10.0	16	40	IP54	2.3	240 x 284 x 140.5

* Rated current 230 V mains voltage

Electronic voltage controllers 1~

Acontrol, speed controller or pressure/temperature controller

These versions are primarily used as speed controllers. They are beneficial for upstream control applications or if the device is combined with control modules from the ZIEHL-ABEGG UNIcon product family.
Depending on the device version, speeds can be pre-set. They can also be set to second stage operation with external switchover, or implemented via an external potentiometer.
The Acontrol voltage control devices also provide an option to control based on temperature or pressure (for example, refrigerant pressure in cooling equipment).

Input for sensors or speed setting through

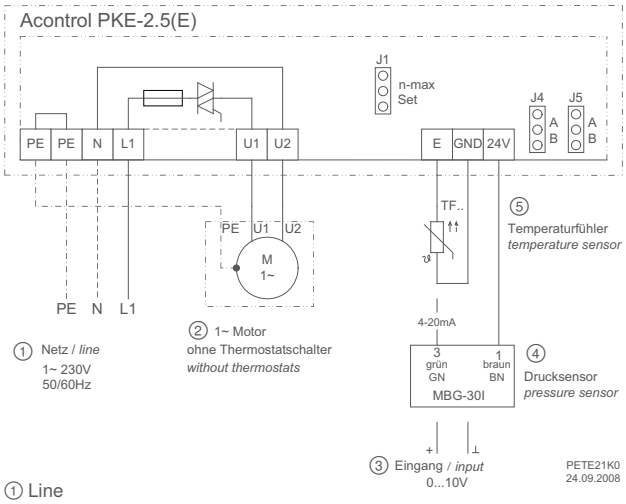
Setting of the desired speed through device or by external default, e.g. 0-10 V

Connecting pressure sensors (refrigeration),
e.g. type MBG.. sensors, measuring range 0-30 bar, 0-50 bar

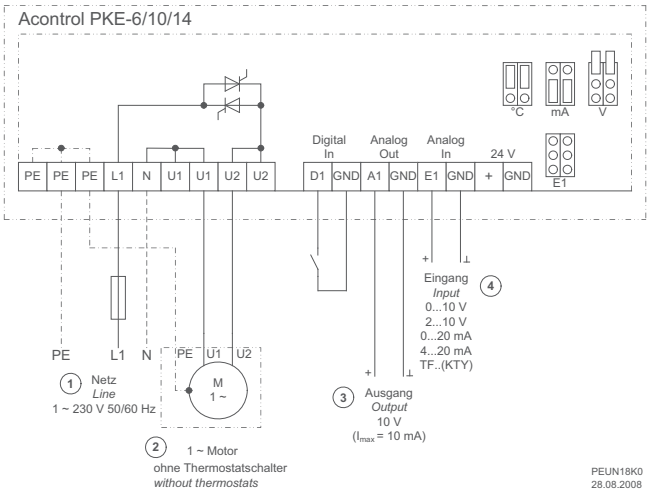
Connecting temperature sensors,
e.g. TF sensors type TF.., device measuring range -27. to +75°C,
e.g. MTG.. type sensor, sensor measuring range -10. to +120°C

Connecting additional sensors,
e. g. combination sensors, CO_2, humidity,
sensor signal 0-10 V / 0-20 mA / 4 , 20 mA

Connection diagram



① Line
② 1~ Motor without thermostats
③ Input
④ Pressure sensor
⑤ Thermistor



① Line
② 1~ Motor without thermostats
③ Output
④ Input

Technical data

- Line voltage: 1~ 230 V
- Mains frequency: 50/60 Hz
- Infinitely controllable output voltage:
  Versions: 2.5 A: 25-100 %
  Versions: 6-14 A: 0-100 %
- Maximum ambient temperature: +40 °C
  Versions: 6-14 A: up to + 55 °C with power reduction possible
- Integrated voltage supply for sensors: +24 V, max. 20 mA
- Permissible relative humidity: 85 % non-condensing
- Interference emission compliant with EN 61000-6-3 (motor feeder cable not shielded)
- Interference immunity compliant with EN 61000-6-2

Equipment/Characteristics

Simple commissioning:
Depending on the device version, commissioning through dip switch, potentiometer or jumper.
Set the corresponding dip switch to implement the desired device function (operating modes: speed controller, temperature or pressure controller). Set the setpoint default via potentiometer.

One analogue input for sensors or default signal
Analogue input E: Set/enable by selecting the operating mode (dip switch, jumper) e.g. 0-10 V, 4-20 mA. When operating as controller connection of corresponding sensor.

1 digital inputs D1
(only for versions 6-14 A):
For connecting an external, floating contact.
D1: enable function On/Off

1 analogue output A1
(only for versions 6-14 A):
Output signal proportional modulation or constant voltage +10 V (max. 10 mA) to connect an external potentiometer for speed preset

Acontrol, speed controller or pressure/temperature controller									
Line	Type	Article no.	I_B* [A]	Max. line fuse [A]	Max. heat dissipation [W]	Protection class		Dimensions (W x H x D) [mm]	Note
1~ 230 V 50/60 Hz	PKE-2.5E	303620	2.5	10	10	IP20	0.3	93 x 96 x 42	Control function cooling Actual value ↑ = Speed ↑
	PKE-2.5	303600	2.5	10	10	IP54	0.5	100 x 185 x 70	
	PKE-6	303614	6.0	10	15	IP54	0.6	100 x 185 x 70	
	PKE-10	303615	10.0	16	25	IP54	0.8	100 x 185 x 70	
	PKE-14	303625	14.0	20	35	IP54	2.1	240 x 284 x 140.5	
	Special version								
	PKE-2.5E	303622	2.5	10	10	IP20	0.3	93 x 96 x 42	Control function heating Actual value ↑ = Speed ↑

* Rated current 230 V mains voltage

Electronic voltage controllers 1~

Acontrol, PID controller for, e.g., differential pressure, air velocity

These versions are ideal especially suitable for the differential pressure control in refrigeration technology (control of roof fans, central ventilation systems) or for air velocity control (constant airflow in clean rooms).
The integrated voltage supply +24 V, max. 65 mA, is designed to connect differential pressure or air velocity sensors.

Input for sensors or speed setting through

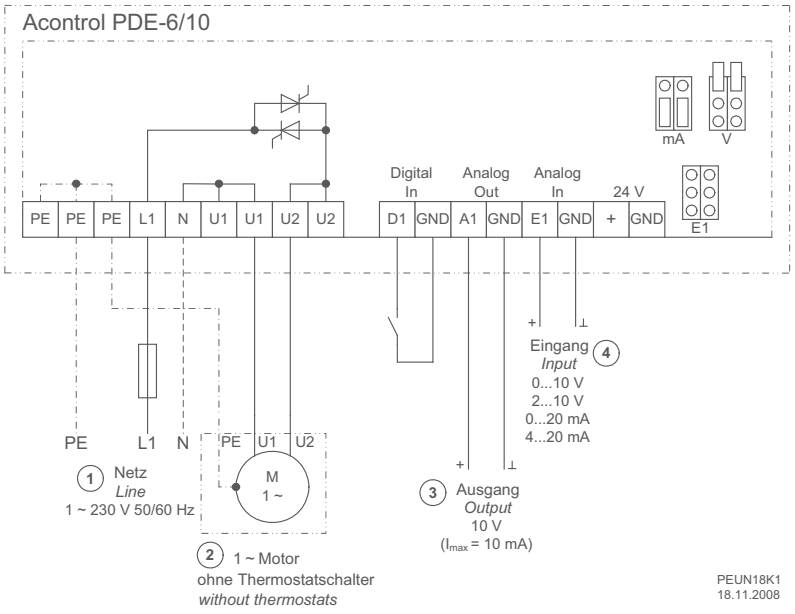
△Pa — Connecting differential pressure sensors (air conditioning), e.g. type DSG.. sensors, measuring range 0-6000 Pa, acquisition of volume flows up to 65000 m³/h

m / s — Connecting air velocity sensors, e.g. type MAL.. sensors, measuring range 0-1 m/s, 0-10 m/s

Acontrol, PID controller for, e.g., differential pressure, air velocity								
Line	Type	Article no.	I_B* [A]	Max. line fuse [A]	Max. heat dissipation [W]	Protection class	kg	Dimensions (W x H x D) [mm]
1~ 230 V 50/60 Hz	PDE-6	303623	6.0	10	15	IP54	0.6	100 x 185 x 70
	PDE-10	303624	10.0	16	25	IP54	0.8	

* Rated current 230 V mains voltage

Connection diagram



① Line
② 1~ Motor without thermostats
③ Output
④ Input

Electronic voltage controllers

3~ Ucontrol, universal controller with display

Most ZIEHL-ABEGG external rotor motors are voltage controllable. For simple and cost-effective speed control of these motors or fans, electronic voltage controllers can be supplied.

For the various applications in refrigeration, air-conditioning and general ventilation technology we supply universal devices from the Ucontrol product family.

These universal control devices also provide an option to control based on temperature, pressure (for example refrigerant pressure in cooling equipment), differential pressure in ventilation systems, or other physical factors.

The Ucontrol universal devices are ideal for following applications: refrigeration, air conditioning, agriculture, general air supply and ventilation jobs, clean room technology. By selecting pre-programmed operating modes, fast commissioning for typical applications in the stated sectors is possible.

Input for sensors or speed setting through

0-10V — Setting of the desired speed through device or by external default, e.g. 0-10 V

0-30 0-50 bar — Connecting pressure sensors (refrigeration), e.g. type MBG.. sensors, measuring range 0-30 bar, 0-50 bar

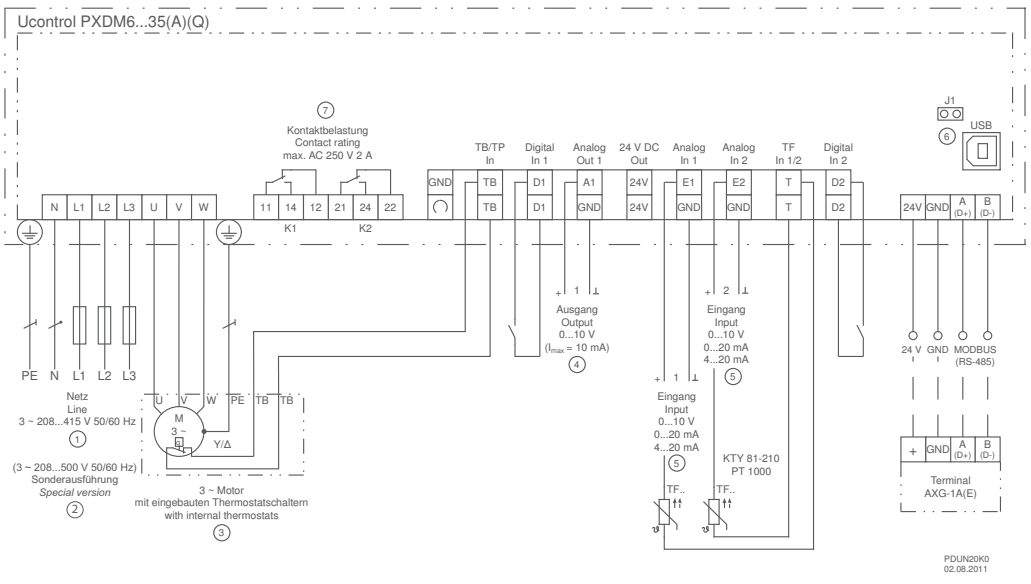
°C — Connecting temperature sensors, e.g. sensor type TF.., device measuring range -27...+75 °C, e.g. active sensor type MTG.., Sensor measuring range -10...+120 °C

△Pa — Connecting differential pressure sensors (air conditioning), e.g. type DSG.. sensors, measuring range 0-6000 Pa, acquisition of volume flows up to 65,000 m³/h

m / s — Connecting air velocity sensors, e.g MAL.. type sensors, measuring range 0-1 m/s, 0-10 m/s

CO_2 % °C — Connecting additional sensors, e.g. combination sensors, CO_2, sensor signal 0-10 V / 0-20 mA / 4-20 mA

Connection diagram



① Line
② Special version
③ 3~ motor with built-in thermostats
④ Output
⑤ Input
⑥ Jumper for boot loader
⑦ Contact load

Technical data

- Line voltage: 3~ 208-415 V
- Mains frequency: 50/60 Hz
- Infinitely controllable output voltage: 20-100 %
- Maximum ambient temperature: +55 °C
  Versions IP 54: +40 °C
  Versions IP20: +50 °C
  (up to + 55 °C with power reduction possible)
- Integrated voltage supply for sensors: +24 V, max. 120 mA
- Permissible relative humidity: 85 % non-condensing
- Interference emission compliant with EN 61000-6-3 (motor feeder cable not shielded)
- Interference immunity compliant with EN 61000-6-2

Equipment/properties

LC multi-function display with plain text display:
Different menu languages can be selected

Simple start-up by operating modes:
Typical operating modes, e.g. for air conditioning, refrigerant or ventilation technology can be selected.

Simple programmability:
Typical settings can be made easily: e.g. minimum speed setting, limitation of the maximum speed, inversions and limits. Setting, e.g. for 2-step mode

2 analog inputs for sensors or setting signals:
analog input E1 and E2: Setting by operating modes or manually programmable, e.g. 0-10 V, 0-20 mA, 4-20 mA
analog input E2: programmable, e.g. comparison with sensor 1, difference to sensor 1, average value formation, setpoint setting, setpoint adaptation (e.g. outdoor temperature-dependent)

2 digital inputs D1 und D2:
Programmable, e.g. enable, switch over setpoint 1 or 2, switch over control or manual mode, switch over E1 or E2, invert control function, output limitation, display external fault, reset

1 analog output A1:
Setting by operating modes or manually programmable, e.g. output signal proportional to modulation, output signal proportional to input signal, invertible, 10 V constant voltage, group control

2 digital outputs (relays) K1 and K2:
Setting by operating modes or manually programmable, e.g. operating indication, fault indication, limits, external fault at digital input, activation of external devices, e.g. heating, shutters, group control, fans, etc.

Integrated motor protection function:
Connection possibility for PTC thermistors or alternatively thermostats (TB or TP).

Interface RS485 MODBUS RTU:
Integration into bus system

Interface USB:
For e.g. software update, communication with PC (not for devices 50, 80 Ampere / not integrated in UL devices)

Set protection:
Activation set protection against unauthorised access, restoration of made settings

Event memory:
Querying of occurred events, operating times, etc.

Optional equipment

IO add-on module type Z-Module-B, Art. no. **380052**
If the integrated inputs and outputs are not sufficient, additional inputs and outputs can be created with the Z-Module-B. These can likewise be programmed.
1 analogue input
1 analogue output
3 digital inputs
2 digital outputs (relays)

LON® Expansion module type Z-Module-L, Art. no. **380053**
For integration into a bus system LON® via 2-conductor wire
Ethernet add-on module type Z-Module-ET, Art. no.**380055**
For integration into an industrial Ethernet network with TCP/IP protocols (MODBUS-TCP)

Ucontrol, universal controller								
Line	**Type**	**Article no.**	I_B* [A]	Max. line fuse [A]	Max. heat dissipation [W]	Protection class	kg	Dimensions (W x H x D) [mm]
3~ 208-415 V 50/60 Hz	Ucontrol, universal controller with display							
	PXDM6A	**304594**	6.0	10	30	IP54	2.3	240 x 284 x 115
	PXDM10A	**304595**	10.0	10	16	IP54	2.8	240 x 284 x 115
	PXDM12A	**304596**	12.0	16	75	IP54	3.7	270 x 323 x 146
	PXDM15A	**304597**	15.0	20	100	IP54	5.0	270 x 323 x 146
	PXDM20A	**304598**	20.0	25	200	IP54	5.5	250 x 302 x 195.5
	PXDM25A	**304599**	25.0	35	270	IP54	11.1	280 x 355 x 239
	PXDM35A	**304600**	35.0	50	440	IP54	11.2	280 x 355 x 239
	PXDM50A	**305567**	50.0	63	170	IP54	20.0	386 x 524 x 283
	PXDM80A	**305568**	80.0	100	270	IP54	21.0	386 x 524 x 283
	PXDM25AE	**304624**	25.0	35	260	IP20	7.7	246 x 359 x 180
	PXDM35AE	**304625**	35.0	50	430	IP20	7.8	246 x 359 x 180
	PXDM50AE	**305592**	50.0	63	160	IP20	13.8	340 x 465 x 220
	PXDM80AE	**305593**	80.0	100	255	IP20	15.4	340 x 465 x 220
	Ucontrol, universal controller without display							
	PXDM6	**304620**	6.0	10	30	IP54	2.2	240 x 284 x 115
	PXDM10	**304621**	10.0	16	50	IP54	2.7	240 x 284 x 115
	Ucontrol, universal controller for increased ambient temperature							
	PXDM6AZ	**304607**	6.0	10	25	IP54	2.3	240 x 284 x 115
	PXDM10AZ	**304608**	10.0	16	45	IP54	2.8	240 x 284 x 115
	PXDM12AZ	**304609**	12.0	16	70	IP54	3.7	270 x 323 x 146
	PXDM15AZ	**304610**	15.0	20	95	IP54	5.0	270 x 323 x 146
	PXDM20AZ	**304611**	20.0	25	190	IP54	5.5	250 x 302 x 195.5
	PXDM25AZ	**304612**	25.0	35	260	IP54	11.1	280 x 355 x 239
	PXDM35AZ	**304613**	35.0	50	430	IP54	11.2	280 x 355 x 239
	PXDM50AZ	**305586**	50.0	63	160	IP54	18.6	386 x 524 x 283
	PXDM80AZ	**305587**	80.0	100	255	IP54	19.6	386 x 524 x 283

* Rated current 400 V mains voltage

Electronic voltage controllers 3~

Ucontrol, universal controller with display and bypass main switch

These versions have an additionally integrated bypass main switch. This offers the possibility of bypassing the internal device electronics. In the bypass position, the applied line voltage is switched directly to the output.

Input for sensors or speed setting through

Setting of the desired speed through device or by external default, e.g. 0-10 V

Connecting pressure sensors (refrigeration), e.g. type MBG.. sensors, measuring range 0-30 bar, 0-50 bar

Connecting temperature sensors, e.g. sensor type TF.., device measuring range -27...+75 °C, e.g. active sensor type MTG.., Sensor measuring range -10...+120 °C

Connecting differential pressure sensors (air conditioning), e.g. type DSG.. sensors, measuring range 0-6000 Pa, acquisition of volume flows up to 65,000 m³/h

Connecting air velocity sensors, e.g MAL.. type sensors, measuring range 0-1 m/s, 0-10 m/s

Connecting additional sensors, e.g. combination sensors, CO_2, sensor signal 0-10 V / 0-20 mA / 4-20 mA

Ucontrol, universal controller with display and bypass main switch								
Line	Type	Article no.	I_B* [A]	Max. line fuse [A]	Max. heat dissipation [W]	Protection class	kg	Dimensions (W x H x D) [mm]
3~ 208-415 V 50/60 Hz	PXDM6AQ	304614	6.0	10	30	IP54	2.6	240 x 284 x 131
	PXDM10AQ	304615	10.0	16	50	IP54	3.1	240 x 284 x 131
	PXDM12AQ	304616	12.0	16	75	IP54	4.0	270 x 323 x 163
	PXDM15AQ	304617	15.0	20	100	IP54	5.3	270 x 323 x 163
	PXDM25AQ	304618	25.0	35	270	IP54	11.4	280 x 355 x 256
	PXDM35AQ	304619	35.0	50	440	IP54	11.5	280 x 355 x 256
	PXDM50AQ	305508	50.0	63	170	IP54	20.7	386 x 524 x 301
	PXDM80AQ	305509	80.0	100	270	IP54	22.8	386 x 524 x 301

* Rated current 400 V mains voltage

Electronic voltage controllers

3~ Dcontrol, speed controller or pressure/temperature controller

These versions are
primarily used as speed controllers.This is beneficial for upstream control applications or when the devices are combined with control modules from the ZIEHL-ABEGG UNIcon product family. Alternatively, speeds can be pre-set. They can also be set to second stage operation with external switchover, or implemented via an external potentiometer.The Dcontrol voltage controllers also provide an option to control based on temperature or pressure (for example, refrigerant pressure in cooling equipment).

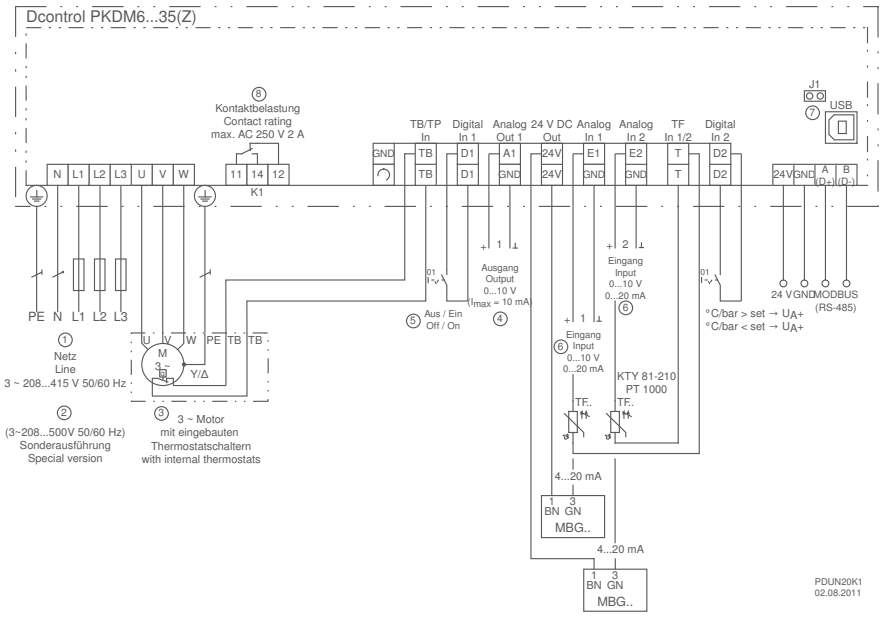
Input for sensors or speed setting through

0-10V — Setting of the desired speed through device or by external default, e.g. 0-10 V

0-30 0-50 bar — Connecting pressure sensors (refrigeration), e.g. type MBG.. sensors, measuring range 0-30 bar, 0-50 bar

°C — Connecting temperature sensors, e.g. TF sensors type TF.., device measuring range -27. to +75°C, e.g. MTG.. type sensor, sensor measuring range -10. to +120°C

Connection diagram



① Line
② Special design
③ 3~ Motor with integrated thermostats
④ Output
⑤ Off/On
⑥ Input
⑦ USB interface
⑧ Contact rating

Technical data

- Line voltage: 3~ 208-415 V
- Mains frequency: 50/60 Hz
- Continuously controlled output voltage 20-100 %
- Maximum ambient temperature:
  Versions IP54: +40 °C
  Versions IP20: +50 °C (up to + 55 °C with power reduction possible)
- Integrated voltage supply for sensors: +24 V, max. 120 mA
- Permissible relative humidity: 85 % non-condensing
- Interference emission compliant with EN 61000-6-3 (motor feeder cable not shielded)
- Interference immunity compliant with EN 61000-6-2

Equipment/Characteristics

Simple commissioning with dip switch and potentiometer:
The controls are accessible directly in the device terminal compartment. Set the dip switch to select the desired device function (operating modes: speed controller, temperature, or pressure controller). The setpoint preset is set with the potentiometer.

Two analogue inputs for sensors or default signal
Analogue input E1 and E2: Set/enable by selecting the operating mode (dip switch), e.g., 0-10 V, 4-20 mA. When operating as a controller, e.g. connection of two sensors for controlling the higher value (e.g., two-loop condenser)

2 digital inputs D1 and D2
For connecting an external, floating contact.
D1: Enable function On/Off
D2: Reverse the control function, e.g. heating, cooling

1 analogue output A1:
Output signal proportional modulation or constant voltage
+10 V (max. 10 mA) to connect an external potentiometer for speed prese

1 floating alarm relay K1:
During a fault, the relay drops out. Max. load 250 V, 2 A.

Integrated motor protection function
Connection facility for thermostat „TB“ or thermistor „TP“

Interface RS485 MODBUS RTU
Connection to bus system

Interface USB
e.g. for software update, communication with PC
(not on 50, 80 Ampere devices / not integrated in UL devices)

Dcontrol, speed controller or pressure/temperature controller								
Line	Type	Article no.	I_B* [A]	Max. line fuse [A]	Max. heat dissipation [W]	Protection class	kg	Dimensions (W x H x D) [mm]
3~ 208-415 V 50/60 Hz	Dcontrol, speed controller or pressure/temperature controller							
	PKDM6	**304587**	6.0	10	30	IP54	2.2	240 x 284 x 115
	PKDM10	**304588**	10.0	16	50	IP54	2.7	240 x 284 x 115
	PKDM12	**304589**	12.0	16	75	IP54	3.6	270 x 323 x 146
	PKDM15	**304590**	15.0	20	100	IP54	4.9	270 x 323 x 146
	PKDM20	**304591**	20.0	25	200	IP54	5.5	250 x 302 x 195.5
	PKDM25	**304592**	25.0	35	270	IP54	11.0	280 x 355 x 239
	PKDM35	**304593**	35.0	50	440	IP54	11.0	270 x 323 x 146
	PKDM50	**305563**	50.0	63	170	IP54	19.5	386 x 524 x 283
	PKDM80	**305564**	80.0	100	270	IP54	20.5	386 x 524 x 283
	PKDM25E	**304622**	25.0	35	260	IP20	7.4	246 x 359 x 180
	PKDM35E	**304623**	35.0	50	430	IP20	7.5	246 x 359 x 180
	PKDM50E	**305588**	50.0	63	160	IP20	13.8	340 x 465 x 220
	PKDM80E	**305589**	80.0	100	255	IP20	15.4	340 x 465 x 220
	Dcontrol, speed controller or pressure/temperature controller for increased ambient temperature							
	PKDM10Z	**304601**	10.0	16	45	IP54	2.7	240 x 284 x 115
	PKDM12Z	**304602**	12.0	16	70	IP54	3.6	270 x 323 x 146
	PKDM15Z	**304603**	15.0	20	95	IP54	4.9	270 x 323 x 146
	PDKM20Z	**304604**	20.0	25	190	IP54	5.5	250 x 302 x 195.5
	PKDM25Z	**304605**	25.0	35	260	IP54	11.1	280 x 355 x 239
	PKDM35Z	**304606**	35.0	50	430	IP54	11.1	280 x 355 x 239
	PKDM50Z	**305578**	50.0	63	160	IP54	18.1	386 x 524 x 283
	PKDM80Z	**305579**	80.0	100	255	IP54	19.1	386 x 524 x 283

* Rated current 400 V mains voltage

Electronic voltage controllers 3~

Dcontrol, with UL certification

Two device versions can be supplied with UL certification.
They are available with 10 or 15 A rated current.
The larger voltage range of 208-500 V
allows these devices to be used in many different applications.

Input for sensors or speed setting through

0-10V

Setting of the desired speed through device or by external default, e.g. 0-10 V

0-30
0-50
bar

Connecting pressure sensors (refrigeration),
e.g. type MBG.. sensors, measuring range 0-30 bar, 0-50 bar

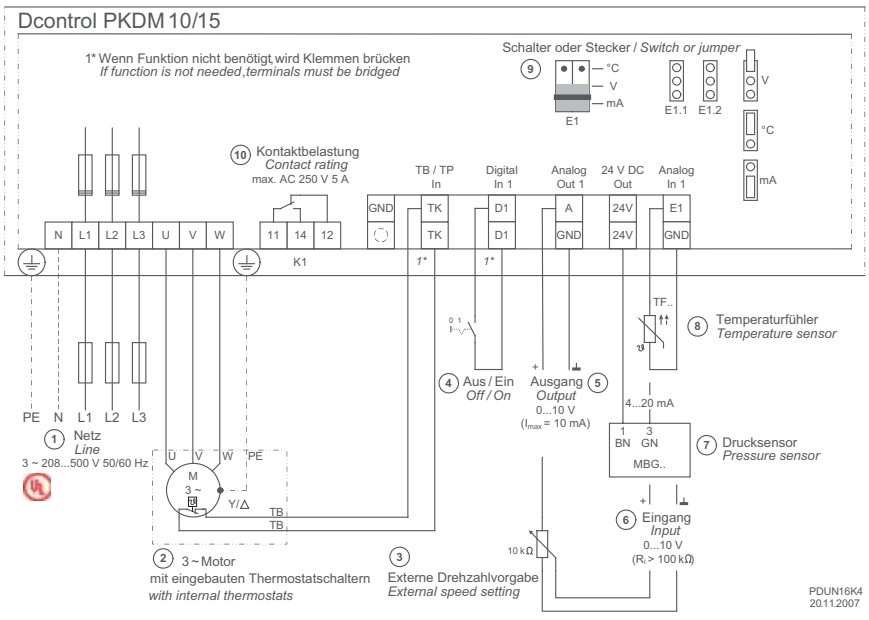
°C

Connecting temperature sensors,
e.g. TF sensors type TF.., device measuring range -27. to +75 °C,
e.g. MTG.. type sensor, sensor measuring range -10. to +120 °C

Dcontrol, with UL certification								
Line	**Type**	**Article no.**	I_B* [A]	Max. line fuse [A]	Max. heat dissipation [W]	Protection class		Dimensions (W x H x D) [mm]
	Dcontrol voltage control devices for 3~ fans, UL certified versions for the North American market, with wide voltage range 3~ 208 - 500 V							
3~ 208-500 V 50/60 Hz	**PKDM10**	**304551**	10.0	16	50	IP54	2.9	240 x 284 x 115
	PKDM15	**304552**	15.0	20	85	IP54	4.9	270 x 323 x 146

* Rated current 400 V mains voltage

Connection diagram



① Line
② 3~ Motor with integrated thermostats
③ External speed setting
④ Off/On
⑤ Output
⑥ Input
⑦ Pressure sensor
⑧ Temperature sensor
⑨ Switch or plug
⑩ Contact rating

1* If function is not needed, terminals must be bridged

Electronic voltage controllers 3~

Dcontrol, basic device for 5 amps

Version PKDT5 can be supplied for a maximum of 5 A rated current. The device is designed for a 400-415 V line voltage and is a cost-effective alternative to devices with a larger voltage range.

Input for sensors or speed setting through

Setting of the desired speed through device or by external default, e.g. 0-10 V

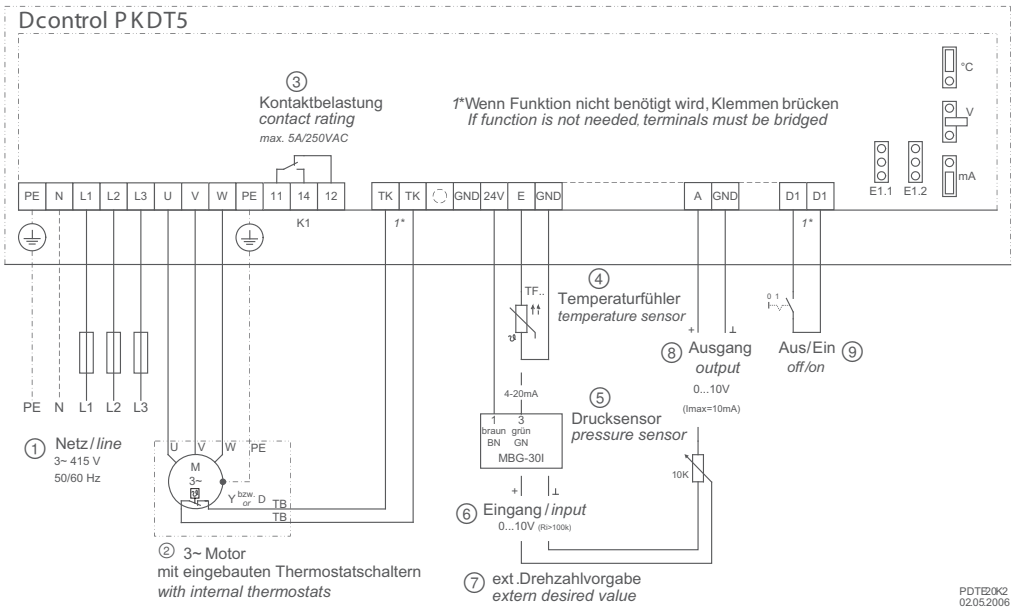
Connecting pressure sensors (refrigeration),
e.g. type MBG.. sensors, measuring range 0-30 bar, 0-50 bar

Connecting temperature sensors,
e.g. TF sensors type TF.., device measuring range -27. to +80 °C,
e.g. MTG.. type sensor, sensor measuring range -10. to +120 °C

Dcontrol, basic device for 5 amps								
Line	**Type**	**Article no.**	I_B* [A]	Max. line fuse [A]	Max. heat dissipation [W]	Protection class		Dimensions (W x H x D) [mm]
3~ 400-415 V 50/60 Hz	**PKDT5**	**304555**	5.0	10	25	IP54	2.4	240 x 284 x 115

* Rated current 400 V mains voltage

Connection diagram



① Line
② 3~ Motor with integrated thermostats
③ Contact rating
④ Temperature sensors
⑤ Pressure sensor
⑥ Input
⑦ External speed setting
⑧ Output
⑨ On/Off

1* If function is not needed terminals must be bridged

Electronic voltage controllers 3~

Dcontrol, speed controller for 2 amps

Version PSDT2V can be supplied for up to maximum of 2 A rated current. The device is designed for 400 V line voltage and is soley used as a speed controller.

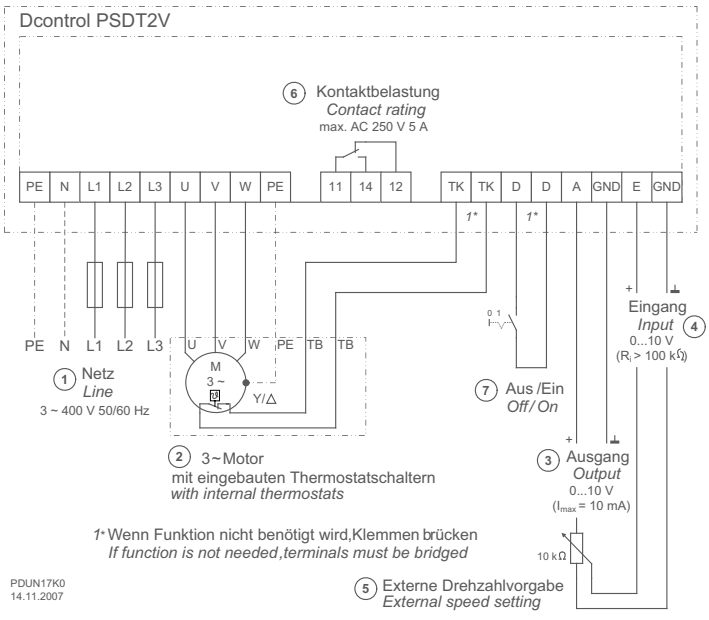
Input for sensors or speed setting through

Setting of the desired speed through device or by external default, e.g. 0-10 V

Dcontrol, speed controller for 2 amps								
Line	**Type**	**Article no.**	I_B* [A]	Max. line fuse [A]	Max. heat dissipation [W]	Protection class	kg	Dimensions (W x H x D) [mm]
3~ 400 V 50/60 Hz	**PSDT2V**	**304500**	2.0	6	10	IP54	1.0	166 x 230 x 118

* Rated current 400 V mains voltage

Connection diagram



① Line
② 3~ Motor with integrated thermostats
③ Output
④ Input
⑤ External speed setting
⑥ Contact rating

1* If function is not needed, terminals must be bridged

Transformer-based controllers

Description

Most ZIEHL-ABEGG external rotor motors are voltage controllable. For simple and cost-effective speed control of these motors and fans, transformer-based controllers are available. These can be supplied in various versions. In addition to versions that only generate the corresponding voltage by setting the 5-stage switch, there are also devices that can control dampers or valves.

Versions, that switch between two adjustable stages via an external contact, are also available. Versions, that are controlled via a 5-step thermostat, or 0-10 V signal, are also available. Another, great advantage of transformer-based control devices is speed control without electromagnetic excitation in the motors. The products are therefore also recommended for areas that are sensitive of noise.

Correspondingly, we supply thermostats which can be combined without the need of transformer-based controllers.

Technical data

Line voltage for 1~ devices: 1~ 230 V
Line voltage for 3~ devices: 3~ 400 V
Mains frequency: 50/60 Hz
Maximum ambient temperature: +40 °C

Equipment/Characteristics

Operating indicator lamp
for status indication. Device on/off.

Speed setting
The desired speed is set via the integrated 5-step switch. Devices with two adjustable speeds or devices with 0-10 V control can also be supplied.

Output voltage:
1~ units: 65 - 110 - 135 - 170 - 230 V
3~ units: 95 - 145 - 190 - 240 - 400 V

Please refer to the respective device connection diagram, depending on model.

Digitale Input
For external, floating contact to issue an authorisation for the preselected step (on/off); e.g. connect room thermostat SRE1G.

Digital input for frost protection
For external, floating contact. If a frost protection thermostat responds, thedevice switches off. Resetting to switch position 0 required to restore.

Integrated motor protection function
Connection facility for thermostat „TB“

Switched output in operation
Switched phase 1~ 230 V, max. 1 A, e.g. for damper servo-motor.

Change-over relay
Floating change-over relay, max. load 250 V AC, 2 A, to control external devices.

Optional supply of individual transformers

The type of transformers that are predominantly used in our control devices, can also be supplied individuallyPlease note that they are designed as special versions intended for control cabinet integration, including installation pad and connection terminal. There are 1~ 230 V transformers and 3~ 400 V transformers. For 3~ 400 V, two transformers are connected in a V-circuit.

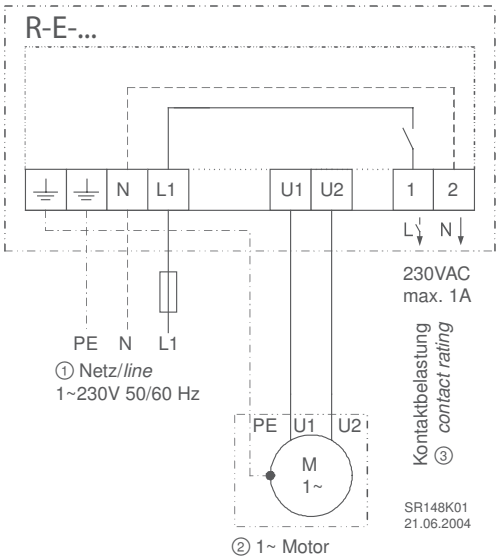
Transformer-based controllers 1~

With 5-step switch

Tranformer based controllers 1~ with 5-step-switch								
Line	**Type**	**Article no.**	I_B * [A]	Max. line fuse [A]	Max. heat dissipation [W]	Protection class	kg	Dimensions (W x H x D) [mm]
1~ 230 V 50/60 Hz	**R-E-1.5G**	**302001**	1.5	4	20	IP54	2.0	105x180x98
	R-E-2G	**302047**	2.0	4	20	IP54	2.2	166x230x118
	R-E-3,5G	**302048**	3.5	4	30	IP54	3.5	
	R-E-6G	**302049**	6.0	8	35	IP54	5.0	
	R-E-7.5G	**302053**	7.5	8	40	IP54	6.0	240x284x131
	R-E-9G	**302055**	9.0	16	50	IP54	10.5	270x323x163
	R-E-12	**302056**	12.0	20	80	IP21	10.5	
	R-E-14G	**302057**	14.0	20	105	IP54	16.5	

* Rated current 230 V mains voltage

Connections / equipment see connection diagram



② 1~ Motor
ohne Thermokontakte
without thermocontacts

① Line
② 1~motor without thermal contacts
③ Contact load

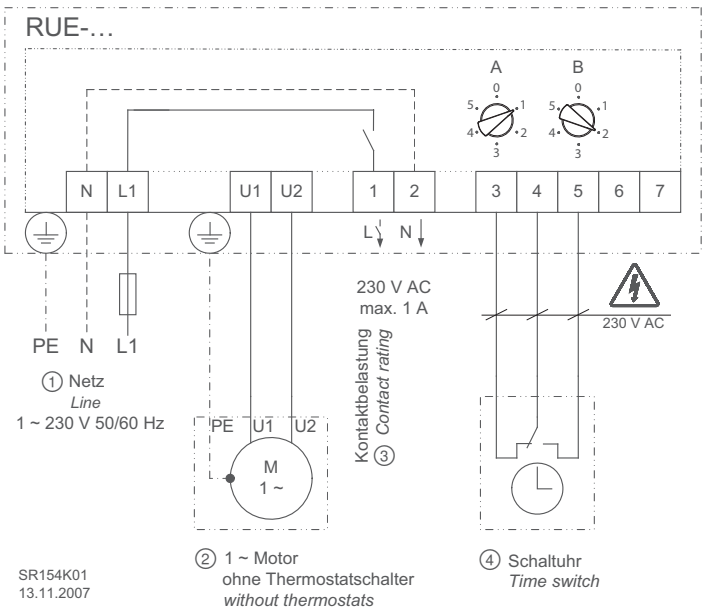
Transformer-based controllers 1~

With two 5-step switches, two speeds can be externally switched

Transformer based controllers 1~ with two 5-step-switch, two speeds external changing								
Line	Type	Article no.	I_B* [A]	Max. line fuse [A]	Max. heat dissipation [W]	Protection class	kg	Dimensions (W x H x D) [mm]
1~ 230 V 50/60 Hz	RUE-2G	302063	2.0	4	25	IP54	3.6	240x284x131
	RUE-4G	302064	4.0	6	35	IP54	4.8	
	RUE-7.5G	302065	7.5	8	45	IP54	6.3	

* Rated current 230 V mains voltage

Connections / equipment see connection diagram



① Line
② 1~ Motor without thermal contacts
③ Contact rating
④ Timer

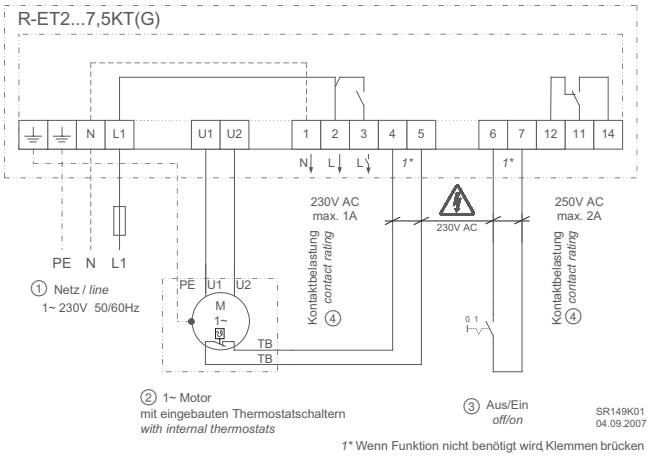
Transformer-based controllers 1~

With 5-step switch, with additional functions

Tranformer based controllers 1~ with 5-step-switch, with additional functions								
Line	**Type**	**Article no.**	I_B*	Max. line fuse	Max. heat dissipation	Protection class	kg	Dimensions (W x H x D)
			[A]	[A]	[W]			[mm]
1~ 230 V 50/60 Hz	**R-ET2KTG**	**302050**	2.0	4	25	IP54	2.3	166x230x118
	R-ET3.5KTG	**302051**	3.5	4	35	IP54	3.6	
	R-ET6KTG	**302052**	6.0	8	40	IP54	5.1	
	R-ET7.5KTG	**302054**	7.5	8	45	IP54	6.1	240x284x132
	R-ET9KTG	**302058**	9.0	16	55	IP54	11.2	270x323x163
	R-ET12KT	**302059**	12.0	20	85	IP21	11.2	
	R-ET14KTG	**302060**	14.0	20	110	IP54	17.2	

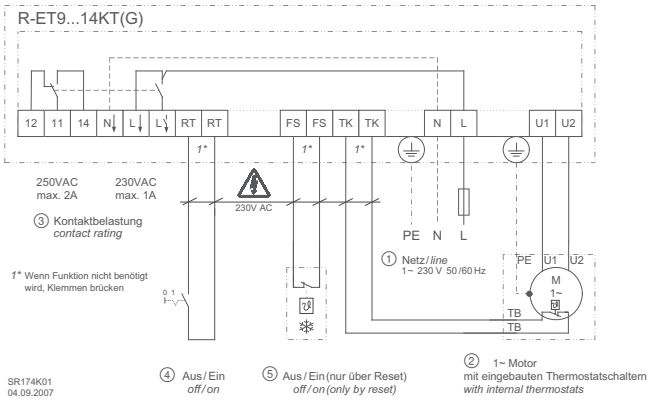
* Rated current 230 V mains voltage

Connection diagram



① Line
② 1~ Motor with integrated thermostats
③ Off/On
④ Contact rating

1* If function is not needed, terminals must be bridged



① Line
② 1~ Motor with integrated thermostats
③ Contact rating
④ Off/On
⑤ Off/On (only via reset)

1* If fuction is not needed, terminals must be bridged

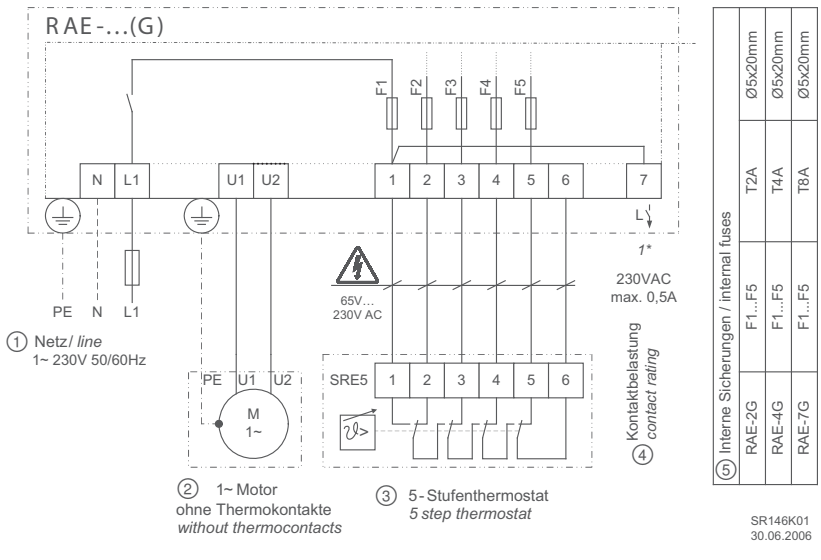
Transformer-based controllers 1~

With 5-step switch or externally via 5-step thermostat

Transformer based controllers 1~ with 5-step-switch or external by 5-step thermostat								
Line	**Type**	**Article no.**	I_B* [A]	Max. line fuse [A]	Max. heat dissipation [W]	Protection class	kg	Dimensions (W x H x D) [mm]
1~ 230 V 50/60 Hz	**RAE-2G**	**302067**	2.0	4	20	IP54	3.3	240x284x131
	RAE-4G	**302068**	4.0	6	30	IP54	4.5	
	RAE-7G	**302069**	7.0	8	40	IP54	6.0	
	RAE-9G	**302061**	9.0	16	50	IP54	10.5	270x323x163

* Rated current 230 V mains voltage

Connection diagram



SR146K01
30.06.2006

1* (nur / *only* RAE-2G & RAE-4G)
Der maximale Gesamtstrom von Motor und Kontakt darf den Bemessungsstrom der internen Sicherung nicht überschreiten!
The maximum total current of motor and contact should not exceed the rated current of the internal fuse

① Line
② 1~ Motor without thermostats
③ 5-step thermostat
④ Contact rating
⑤ Internal fuses

1* only RAE-2G and RAE-4G:
The maximum total current of motor and contact should not exceed the rated current of the internal fuse

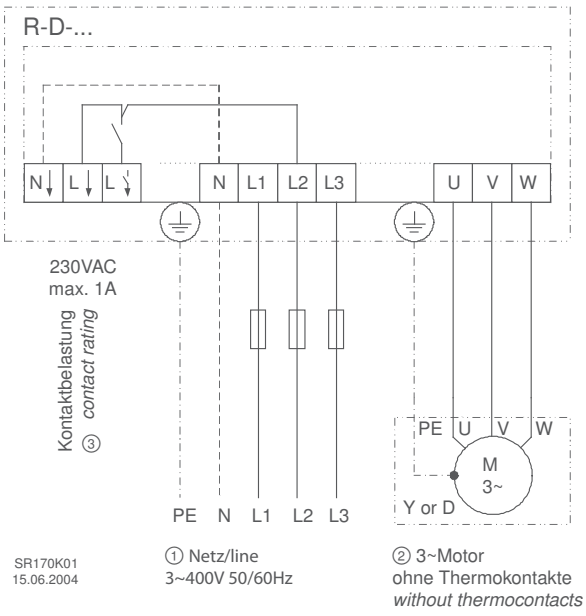
Transformer-based controllers 3~

With 5-step switch

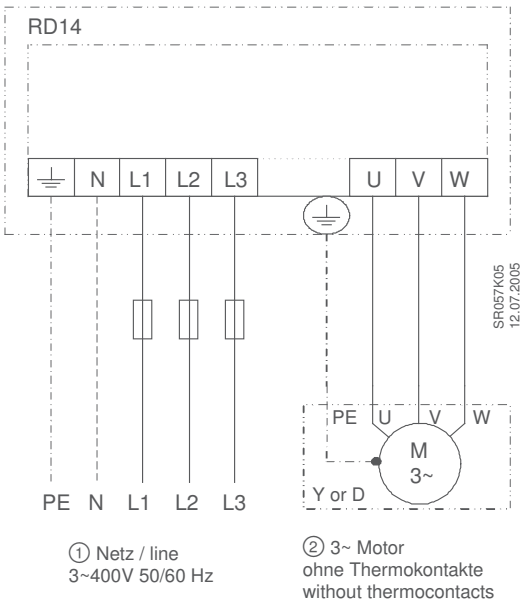
Tranformer based controllers 3~ with 5-step-switch						
Line	**Type**	**Article no.**	I_B* [A]	Protection class	kg	Dimensions (W x H x D) [mm]
3~ 400 V 50/60 Hz	**R-D-1G**	**302571**	1.0	IP54	4.5	240x284x131
	R-D-2G	**302572**	2.0	IP54	7.2	
	R-D-3G	**302573**	3.0	IP54	12.5	270x323x163
	R-D-4	**302574**	4.0	IP21	12.5	
	R-D-5.2G	**302575**	5.2	IP54	18.1	
	R-D-7	**302576**	7.0	IP21	18.1	
	R-D-14	**302560**	14.0	IP54	30.2	450x290x174

* Rated current 400 V mains voltage

Connection diagram



① Line
② 3~ Motor without thermostats
③ Contact rating



① Line
② 3~ Motor without thermostats

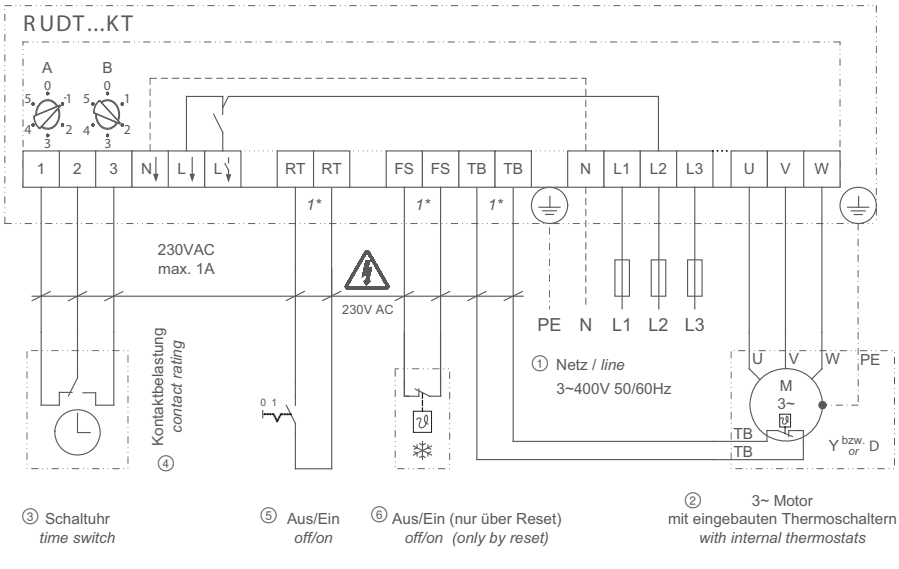
Transformer-based controllers 3~

With two 5-step switches, two speeds can be externally switched

Transformer based controllers 3~ with two 5-step-switch, two speeds external changing								
Line	**Type**	**Article no.**	I_B* [A]	Max. line fuse [A]	Max. heat dissipation [W]	Protection class	kg	Dimensions (W x H x D) [mm]
3~ 400V 50/60 Hz	**RUDT2T**	**302640**	2.0	4	50	IP21	6.2	270x323x163
	RUDT4T	**302641**	4.0	5	75	IP21	11.2	
	RUDT7T	**302642**	7.0	16	110	IP21	15.8	
3~ 230V 50/60 Hz	**RUDT3.5T**	**302643**	3.5	6	65	IP21	6.2	270x323x163
	RUDT7T	**302644**	7.0	16	80	IP21	11.2	
	RUDT10T	**302645**	12.0	16	85	IP21	15.6	

* Rated current at 230V or 400V line voltage

Connection diagram



③ Schaltuhr
time switch

⑤ Aus/Ein
off/on

⑥ Aus/Ein (nur über Reset)
off/on (only by reset)

② 3~ Motor
mit eingebauten Thermoschaltern
with internal thermostats

*1** Wenn Funktion nicht benötigt wird, Klemmen brücken
If function is not needed, terminals must be bridged

RDNT08K1
16.02.2006

① Line
② 3~Motor with integrated thermostats
③ Timer
④ Contact rating
⑤ Off/On
⑥ Off/On (only via reset)

1* If function is not needed, terminals must be bridged

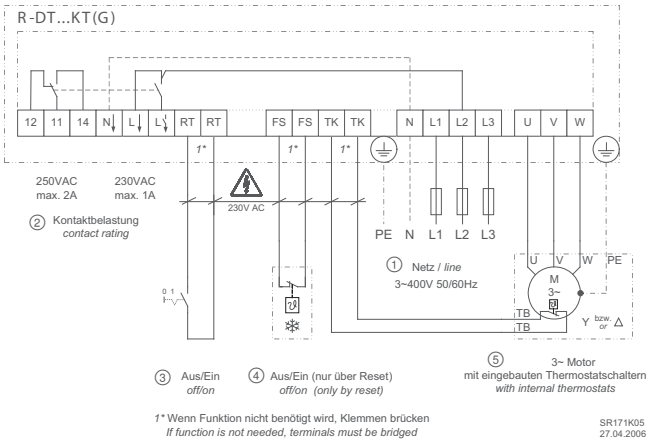
Transformer-based controllers 3~

With 5-step switch, with additional functions

Tranformer-based controllers 3~ with 5-step-switch, with additional functions								
Line	**Type**	**Article no.**	I_B*	Max. line fuse	Max. heat dissipation	Protection class		Dimensions (W x H x D)
			[A]	[A]	[W]			[mm]
3~ 400V 50/60Hz	**R-DT1KTG**	**302581**	1.0	4	40	IP54	4.7	240x284x131
	R-DT2KTG	**302582**	2.0	4	50	IP54	7.4	
	R-DT3KTG	**302583**	3.0	6	60	IP54	11.0	270x323x163
	R-DT4KT	**302584**	4.0	6	75	IP21	11.0	
	R-DT5.2KTG	**302585**	5.2	13	80	IP54	15.6	
	R-DT7KT	**302586**	7.0	16	110	IP21	15.6	
	RTDT14E	**302561**	14.0	25	130	IP21	30.5	450x290x174
	RTDT14EK	**302562**	14.0	25	130	IP21	30.6	
3~ 230V 50/60Hz	**R-DT3.5KTG**	**302592**	3.5	6	65	IP54	4.7	240x284x131
	R-DT7KT	**302593**	7.0	16	80	IP21	11.0	270x323x163
	R-DT10KT	**302594**	10.0	16	85	IP21	11.0	

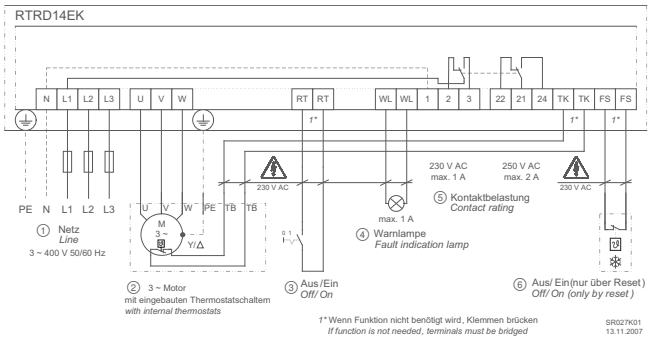
* Rated current at 230V or 400V line voltage

Connection diagram



① Line
② Contact rating
③ Off/On
④ Off/On (only via reset)
⑤ 3~ Motor with integrated thermostats

1* If function is not needed, terminals must be bridged



① Line
② 3~ Motor with integrated thermostats
③ Off/On
④ Warning lamp
⑤ Contact rating
⑥ Off/On (only via reset)

1* If function is not needed, terminals must be bridged

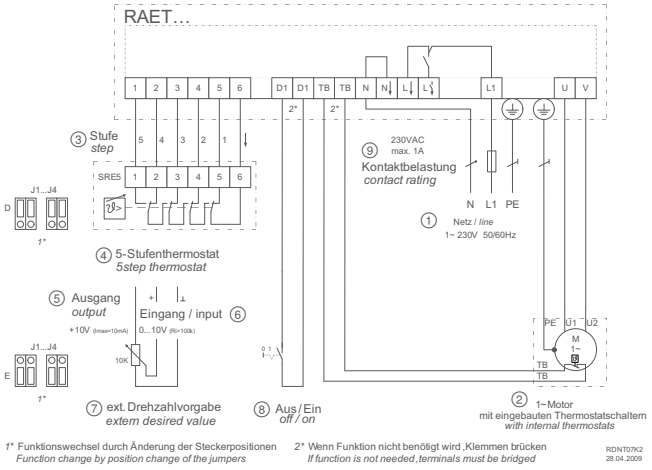
Transformer automatic control equipment 1~ / 3~

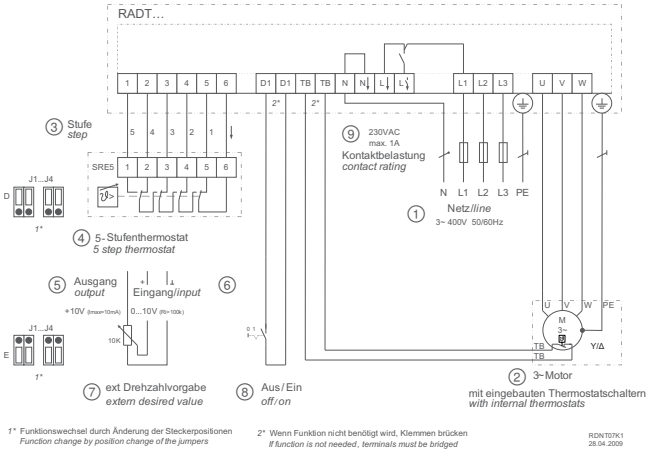
External control through 0-10 V or 5-step thermostat

Transformer based automatic controllers 1~ / 3~ external activation by 0-10 V signal or 5-step thermostat								
Line	Type	Article no.	I_B* [A]	Max. line fuse [A]	Max. heat dissipation [W]	Protection class	kg	Dimensions (W x H x D) [mm]
1~ 230V 50/60 Hz	**RAET3VG**	**302100**	3.0	6	25	IP54	5.6	270x323x163
	RAET4V	**302101**	4.0	6	30	IP21	5.6	
	RAET5.2VG	**302102**	5.2	13	40	IP54	10.0	
	RAET7V	**302103**	7.0	16	45	IP21	10.0	
3~ 400V 50/60 Hz	**RADT2V**	**302595**	2.0	4	60	IP21	7.4	
	RADT3VG	**302596**	3.0	6	70	IP54	11.0	
	RADT4V	**302597**	4.0	6	85	IP21	11.0	
	RADT5.2VG	**302598**	5.2	13	90	IP54	15.6	
	RADT7V	**302599**	7.0	16	120	IP21	15.6	

* Rated current at 230V or 400V line voltage

Connection diagram





① Line
② 3~ Motor with integrated thermostats
③ Step
④ 5-step-thermostat
⑤ Output
⑥ Input
⑦ External speed setting
⑧ Off/On
⑨ Contact rating
1* Function change by changing position of the jumpers
2* If function is not needed, terminals must be bridged

① Line
② 3~ Motor with integrated thermostats
③ Step
④ 5-step-thermostat
⑤ Output
⑥ Input
⑦ External speed setting
⑧ Off/On
⑨ Contact rating
1* Function change by changing position of the jumpers
2* If function is not needed, terminals must be bridged

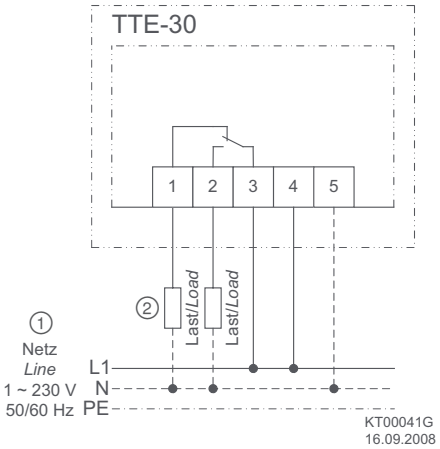
Thermostats

For transformer based controllers

Thermostats that can be used in combination with our transformer-based controllers, for instance. Versions with switchover contact or as 5-step thermostat are available.

Thermostat for living rooms with switch over contact
Technical data TTE-30, Art. No. 3325002

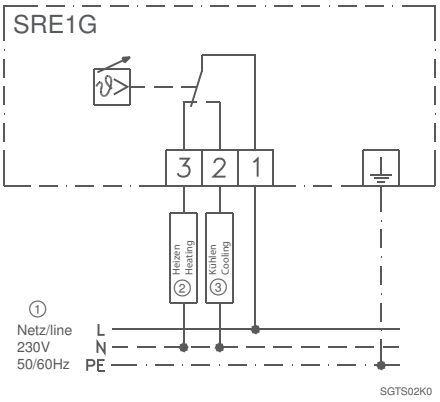
Adjustable temperature range: +10 °C...+30 °C
Switching difference: approx. 1 K
Protection class: IP30
Switching capacity: Max. 5 (2) A, 250 V AC



① Line
② Load

Thermostat for industrial areas with switch over contact
Technical data SRE1G, Art. No. 380002

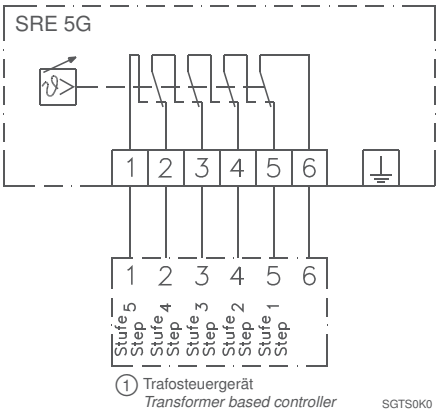
Adjustable temperature range: 0 °C...+40 °C
Switching difference: approx. 1.5 K
Protection class: IP54
Switching capacity:
Terminals 1 - 3, 16 (4) A, 250 V AC | 10 (4) A, 400 V AC
Terminals 1 - 2, 8 (4) A, 250 V | 4 (2) A, 400 V AC



① Line
② Heating
③ Cooling

5-step thermostat for industrial areas and outdoor use
Technical data SRE5G, Art. no. 380003

Adjustable temperature range: 0 - 40 °C
Switching differential: approx. 2 K (+/- K)
Protection class: IP54
Switching capacity:10 (4) A, 230 V AC



① Tranformer based controller

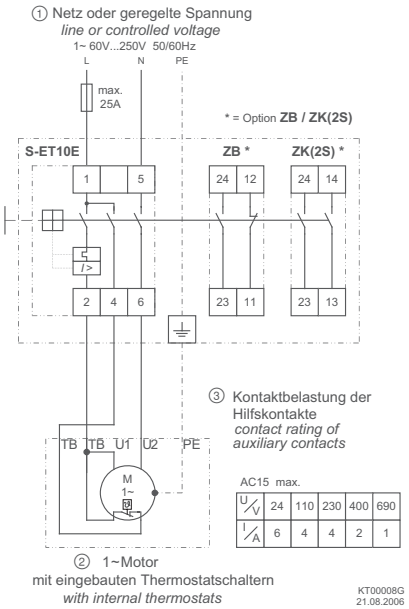
Motor protection units

To monitor thermostats (TB)

Complete motor protection is implemented by connecting the thermostat, which is integrated into the motor, to the motor protection unit. Most ZIEHL-ABEGG external rotor motors are equipped with thermostats (TB) in the winding. These thermostats open during high winding temperatures, facilitating the direct monitoring of the temperature in the motor, thus ensuring the direct protection of the motor.When the thermostat opens, the motor protection unit is triggered and has to be manually reset; this is done to prevent an unwanted reconnection after the motor has cooled off.

Additional functions of the 3~ STDT motor protection units:
They have an overcurrent trigger integrated. That means the device acts like a fuse and can be used for “current distribution”. The adjustable overcurrent trigger protects the cable leading to the connected motors. Dual terminals located on the input and output sides of the motor protection unit facilitate simple wiring of multiple motors or fans on the output side of a powerful controller.

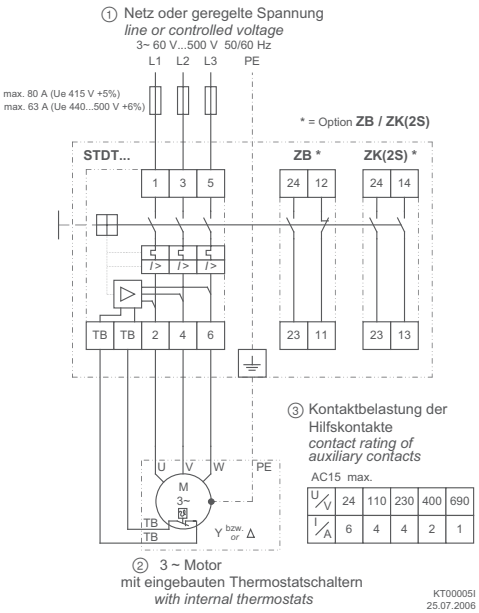
Connection diagram S-ET



① Line or controlled voltage
② 1~ motor with integrated thermostats
③ Contact load of auxiliary contacts

* Option ZB/ZK(2S)

Connection diagram STDT



① Line or controlled voltage
② 3~ motor with integrated thermostats
③ Contact load of auxiliary contacts

* Option ZB/ZK(2S)

Technical data

- Line voltage with 1~ devices S-ET: 1~ 60- 250 V
- Line voltage with 3~ devices STDT: 3~ 60 - 500 V
- Mains frequency 50 / 60 Hz. Can also be used with ZIEHL-ABEGG Fcontrol frequency inverter
  Fcontrol (with integrated sine filter).
- Maximum ambient temperature:
  Version for panel mounting IP20: +55 °C
  Version in housing IP 55: +40 °C

Equipment/Characteristics

Complete motor protection
Automatic shut-off when connected thermostat „TB“ opens (direct temperature monitoring in the motor winding).

Integrated button
Switch connected motors on and off manually. Manual reset after motor fault (protection from unwanted restarting)

Optional: operating status contact
Type „ZB“ with one open contact and one close contact
Type „ZK“ with two close contacts

Optional padlock feature
Type „Zrep“ for the IP55 housing version. The motor protection unit can be locked during servicing (max. 3 locks)

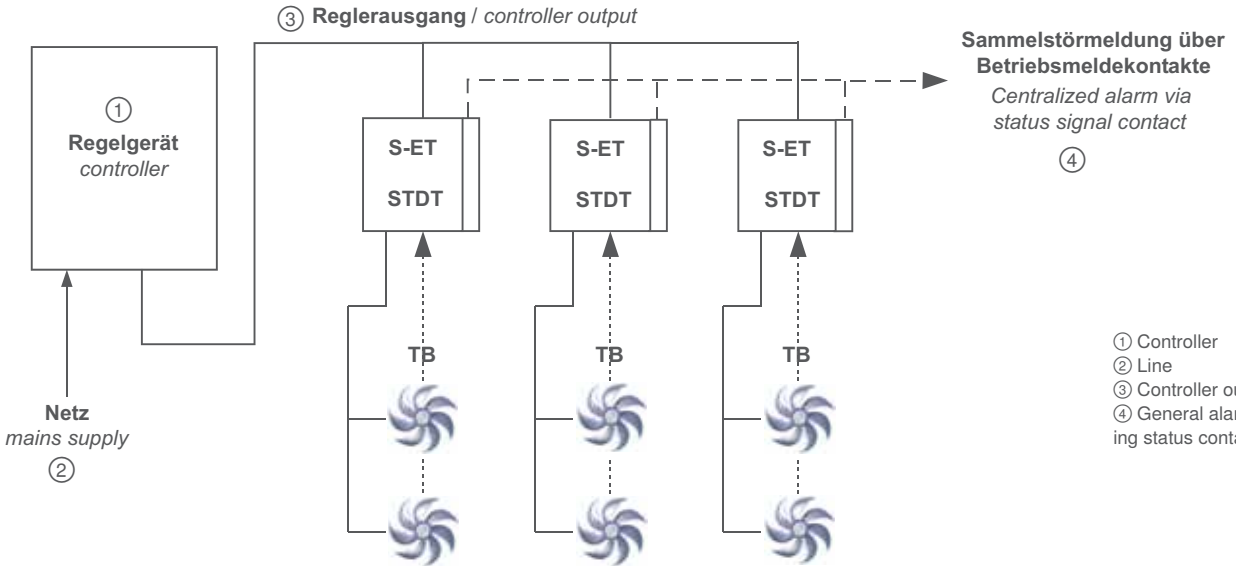
Cable protection (only in 3~ STDT devices)
Via integrated overcurrent trigger, which can be adjusted to the cable cross section.

Motor protection units for monitoring thermostats (TB)					
Version	Type	Article no.	I_B* [A]	Overcurrent trigger	Dimensions (W x H x D) [mm]
1~ 60-230 V, 50/60 Hz					
Control cabinet integration on DIN rail	S-ET10E	382021	10	-	45 x 80 x 85.5
In IP55 housing	S-ET10	382020	10	-	80 x 150 x 97.5
3~ 60-500 V, 50/60 Hz					
In IP55 housing	STDT16E	382012	16	10-16 A	54 x 80 x 85.5
	STDT25E	382015	25	20-25 A	
Control cabinet integration on DIN rail	STDT16	382011	16	10-16 A	80 x 150 x 97.5
	STDT25	382014	25	20-25 A	
System components					
Operating status contact	ZB (1Ö + 1S)	382013	-	-	9 x 80 x 75
	ZK (2S)	382022	-	-	
Padlock block	Zrep	382025	-	-	-

* Rated current at 230V or 400V line voltage

Application example

Motor protection units S-ET or STDT, depending on the line. With S-ET monitoring of individual fans, with STDT monitoring of several fans per motor protection unit possible. Thermostats are wired in series.



① Controller
② Line
③ Controller output
④ General alarm via operating status contacts

Sensors

Differential pressure sensor

Sensors for measuring differential pressure Used in air ducts, fan inlet nozzles (e.g. in air conditioning box devices), roof fans, etc. The differential pressure sensor is connected to the ventilation system by two pressure connections. The differential pressure thus acts on a silicone diaphragm, the change in position of which is evaluated electronically

The sensor generates a 0 – 10 V signal proportionally over the respective measuring range. Depending on the connected control unit, the control can thus be made based on differential pressure or air flow.

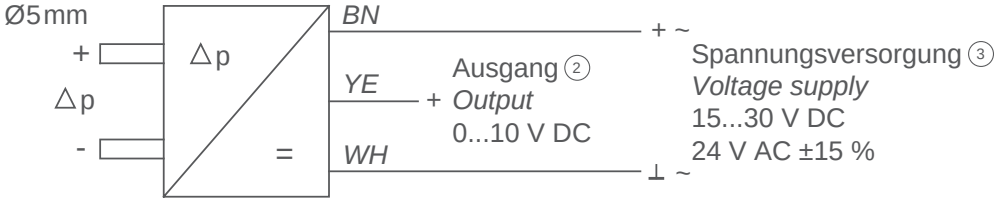
Version for fixed measuring ranges (DSG) from 0 – 50 to 0 – 6000 Pa are available. Alternatively, we supply versions with switchable measuring ranges (MPG). The range from 0 – 6000 Pa can be covered with two device versions (MPG). Each version has four calibrated, selectable measuring ranges.

△Pa

m³

Connections

Druckanschlüsse ①
Pressure connection
Ø5mm



① Connection sockets
② Output
③ Voltage supply

FUDU01K1
08.11.2007

Technical data

- Voltage supply: 15 - 30 V DC / 24 V AC +/- 15%
- Current consumption: approx. 12 mA
- Output voltage: 0 - 10 V (I_{max} = 2 mA)
- Pressure connections + / -: for hose sleeves ∅ 5mm
- Maximum ambient temperature: -10 °C to +50 °C
- Interference emission: according to EN 61000-6-3
- Interference immunity: according to EN 61000-6-2

Equipment/properties

Electrical connection:
DSG: Connection by fed out 3-wire cable, length approx. 0.5m
1 x output 0-10 V
1 x external voltage supply
1 x GND
MBG: On-site connection of an external cable to the integrated 3-pole terminal in the device

Measuring ranges:
DSG: Fixed measuring range per device beginning at 0-50 Pa to 0-6000 Pa over 7 sensor types.
MPG: Switchable measuring ranges by dipswitches:
MPG-200V: 0 - 50 / 100 / 150 / 200 Pa
MPG-1000V: 0 - 200 / 300 / 500 / 1000 Pa
MPG-6,000V: 0 - 2000 / 3000 / 4000 / 6000 Pa

Special versions on request:

- Digital display
- Test certificate
- 4 - 20 mA output signal

Differential pressure sensor DSG / MPG

Type	Article no.	Measuring range (Pa)	Protection class	kg	Dimensions (W x H x D) [mm]
DSG50	00155595	0 - 50	IP65	0.09	70 x 70 x 50
DSG200	00150229	0 - 200			
DSG500	00150230	0 - 500			
DSG1000	00150231	0 - 1000			
DSG2000	00150684	0 - 2000			
DSG4000	00150685	0 - 4000			
DSG6000	00150694	0 - 6000			
MPG-200V	384053	0 - 50 ... 200	IP54	0.19	114 x 108 x 56
MPG-1000V	384054	0 - 200 ... 1000			
MPG-6000V	384055	0 - 2000 ... 6000			

Sensors

Differential pressure switch

High-precision differentail pressure switch for monitoring or simple control of differential pressure. Suitable for monitoring tasks in air conditioning, e.g. monitoring the filter contamination in air conditioning box devices.
The switching point of the integrated alternating relay is set by a rotary disk (scale 0.2 to 3 mbar).

Technical data

- Switching capacity:
  5 A at 250 V AC
  0.8 A at inductive loads with 6-fold start-up current cosphi = 0,6
  2 A at 30 VDC
- Pressure connections:
  ± ∅ 6,2 mm
- Maximum ambient temperature:
  -30 to 75 °C (storage -40 to 85 °C)

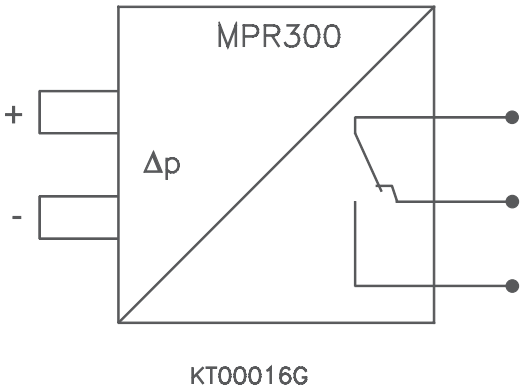
Equipment/properties

Measuring range:
20 – 300 Pa

Accessories included:
hose sleeve and adapter 1/8”

Differential pressure switch			
Type	**Article no.**	Protection class	Dimensions (W x H x D) [mm]
MPR300	**384020**	IP54	88 x 88 x 53

Connections



KT00016G

Sensors

Combined sensor humidity - temperature

Combined sensor for the exact measurement of relative humidity and temperature, especially suitable for applications in agriculture and air conditioning. Application possibility in polluted atmospheres. The sensor has a connection housing which contains the evaluation electronics.
The relative humidity is output by a 0 – 10 V signal. This corresponds to the measuring range of 0 – 100 % relative humidity. The temperature measurement is made by the change in resistance of the built-in PTC (Positive Temperature Coefficient) element (KTY81-210).
Resistance at 25 °C = 2 kΩ.

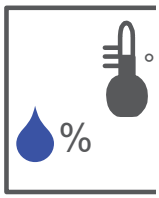
Technical data

- Voltage supply:
  15 - 35 V DC, 15 - 39 V AC
- Current consumption:
  < 5 mA at DC / < 15 mA at AC
- Output voltage:
  0 - 10 V (max. < 1 mA)
- Maximum ambient temperature: Operation -40 to 60 °C (storage -25 to 60 °C)
- Interference emission: according to EN 6100-6-3
- Interference immunity: according to EN 61000-6-2

Equipment/properties

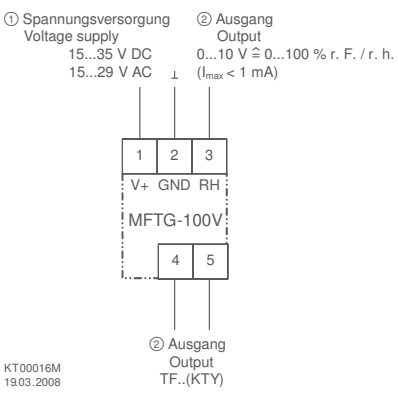
Measuring range:
Measuring range relative humidity 0 – 100 %
The temperature measuring range depends on the properties or the programming of the allocated ZIEHL-ABEGG control unit.

Protection of the sensor element by stainless steel sinter filter



Combined sensor humidity - temperature			
Type	**Article no.**	Protection class	Dimensions (W x H x D) [mm]
MFTG-100V	**384033**	IP65	80 x 80 x 37.2 Ø 12 x 82

Connections



① Voltage supply
② Output

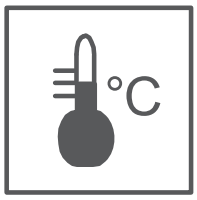
Sensors

Temperature sensors

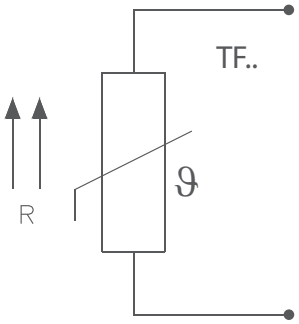
Different ZIEHL-ABEGG PTC (Positive Temperature Coefficient) thermistors are available. The ZIEHL-ABEGG control unit detects the ambient temperature at the measuring point by the change in resistance in the sensor (KTY81-210). Resistance at 25 °C = 2 kΩ (tolerance 1 %). The polarity can be ignored when connecting.
The temperature measuring range depends on the properties of resolution or programming of the allocated ZIEHL-ABEGG control unit.

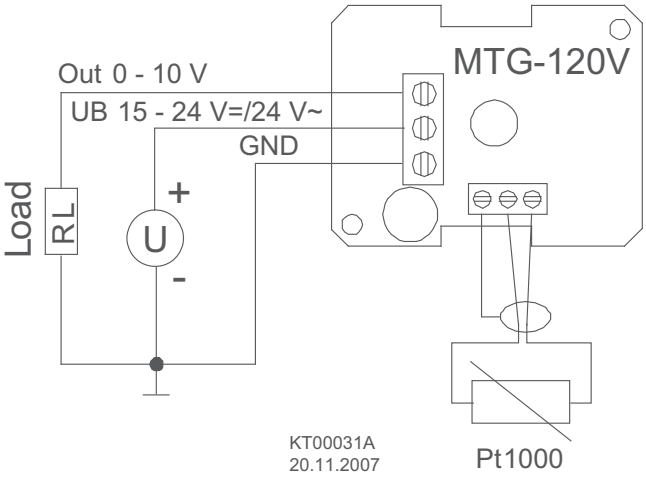
The following types of passive thermistors are available:
- Room sensor TFR with plastic box for outdoor or industrial use
- Living room sensor TFW with plastic housing
- Immersed sensor TFT for installation in on-site immersed sleeve
- Plant sensor TFA for pipework
- Duct sensor TFK with housing and sensor rod for air ducts

Alternatively, the active MTG-120V thermistor can be supplied. This consists of a connection housing to which a 2 m long cable with sensor element is firmly connected.
Application possibilities as contact sensor or immersed sensor, e.g. in oil cooler. The MTG… has the measuring range -10 to 120 °C and generates 0 – 10 V proportionally over the measuring range.



Connections





Technical data

TFR: Permissible temperature range: - 20 °C to + 60 °C

TFW: Permissible temperature range: - 35 °C to + 70 °C

TFT: Permissible temperature range: - 20 °C to + 105 °C
Material sensor sleeve: Brass ∅ 7 x 50 mm

TFA: Permissible temperature range: - 20 °C to + 85 °C
Material sensor sleeve: Stainless steel ∅ 6 x 50 mm

TFK: Permissible temperature range: - 50 °C to + 120 °C
Material sensor sleeve: Stainless steel ∅ 7 x 135 mm

MTG-120V:
Permissible temperature range sensor plus cable: - 50 °C to + 180 °C
Material sensor sleeve: Stainless steel ∅ 6 x 50 mm
Permissible temperature range measuring transducer: - 10 °C to 70 °C
Measuring range: - 10 °C to + 120 °C
Output voltage: 0 – 10 V (I_{max} 2 mA)
Voltage supply: 15 – 24 VDC / 24 VAC (I_{max} 12 mA)
Interference emission: according to EN60730-1 (2000)
Interference immunity: according to EN60730-1 (2000)

Temperature sensors				
Type	**Article no.**	Protection class	Dimensions (W x H x D)	Connection cable length
			[mm]	[m]
TFR	**00089846**	IP54	75 x 75 x 37	-
TFR-E	**00153406**	-	Built-in sensor of TFR	
TFW	**00154798**	IP20	84 x 84 x 23.5	
TFT	**00154797**	IP43	-	1.9
TFT (XL)	**384027**	IP43		4.0
TFA	**00153407**	IP67		2.0
TFK	**384022**	IP65	50 x 65 x 44	-
MTG-120V	**384031**	Housing IP65 Sensor IP67	58 x 78 x 45.5	

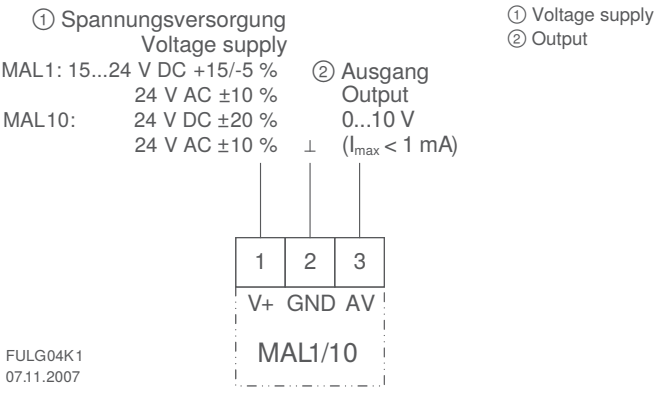
Sensors

Air velocity sensors

Air velocity sensors which are specially optimised for application for clean rooms and air conditioning.
The “hot film pressure gauge principle” is applied as a measuring method which enables very high measuring accuracy from 0.15 m/s.
The sensors are available for measuring ranges from 0 – 1 m/s to 0 – 20 m/s and output 0 – 10 V or 4 – 20 mA proportionally over their measuring range.
The design of the measuring head enables a direction-independent measurement over a wide range. The air velocity sensors are therefore easy to mount. A mounting flange is included in delivery which allow a continuous installation depth, for example into a duct.
The sensors have a connection housing which contains the evaluation electronics. The output signal, the measuring range and the response time can be selected by jumpers. Optionally the connection housing is mounted firmly on the sensor element or connected permanently by a 2 m long connecting cable.

m / s

Connections



① Voltage supply
② Output

Technical data

- Voltage supply MAL1:
  24 V DC +/- 20%
  24 V AC +/- 10%
- Current consumption MAL1:
  < 40 mA at DC / < 100 mA at AC (with 0 – 10 V output signal)
  < 50 mA at DC / < 130 mA at AC (for 4 – 20 mA output signal)
- Voltage supply MAL10:
  24 V DC +/- 20%
  24 V AC +/- 10%
- Current consumption MAL10:
  < 40 mA at DC / < 120 mA at AC (with 0 – 10 V output signal)
  < 50 mA at DC / < 150 mA at AC (with 4 – 20 mA output signal)

Equipment/properties

Measuring range switchable:
MAL1: 0 - 1 / 0 – 1.5 / 0 - 2 m/s
MAL10: 0 - 10 / 0 - 15 / 0 - 20 m/s

Air velocity sensors					
Type	**Article no.**	Cable length [m]	Documents	Protection class	Dimensions (W x H x D) [mm]
MAL1	**384048**	-	Factory certificate*	IP65 Sensor head IP20	80 x 80 x 35 ∅ 12 x 200
MAL1	**384049**	-	Acceptance certificate**		
MAL1-X	**384050**	2	Factory certificate*		
MAL1-X	**384051**	2	Acceptance certificate**		
MAL10	**384052**	-	Factory certificate*		

* according to DIN EN 10204-2.2 (3 measuring points)
**according to DIN EN 10204-3.1 (5 measuring points)

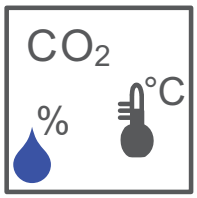
Sensors

Combined sensor CO_2 - humidity - temperature

Combined sensor for measuring carbon dioxide (CO_2), relative humidity and temperature. Especially suitable for applications in air conditioning, for optimum ventilation of apartments, office buildings, event rooms and in gastronomy.
The sensor has a connection housing which contains the evaluation electronics. A proportional 0 – 10 V signal is output over the respective measuring range depending on the measuring variable. This can be combined with ZIEHL-ABEGG control units. There are three 0 – 10 V outputs in total. A display is integrated for showing the measured values which are displayed on this alternately.

Technical data

- Voltage supply:
  15 - 35 V DC, 24 V AC ± 20 %
- Current consumption:
  max. approx. 500 mA
  (accessory: STEP POWER power supply unit Article No. 380067)
- Output voltage:
  3 x 0 – 10 V (max. < 1 mA)
- Maximum ambient temperature: Operation -5 to 55 °C (storage -20 to 60 °C)
- Maximum humidity: Operation 0 – 90 % (storage 0 – 90 %)
- Interference emission: according to EN 6100-6-3
- Interference immunity: according to EN 61000-6-2



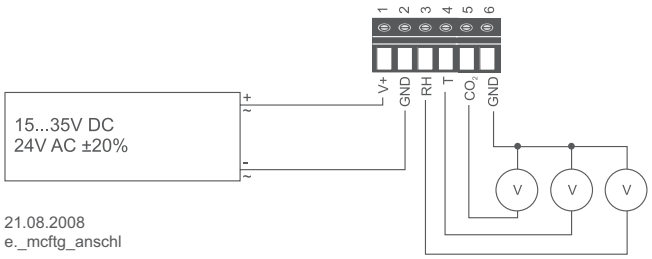
Equipment/properties

Measuring range:
CO_2: 0 – 2000 ppm
Relative humidity: 0 – 100 %
Temperature: 0 – 50

LC display:
Alternating display of the CO_2 concentration in ppm, relative humidity in % and temperature in °C

Combined sensor CO_2 - humidity - temperature			
Type	**Article no.**	Protection class	Dimensions (W x H x D) [mm]
MCFTG-3AV	**384037**	IP20	80 x 100 x 26

Connections



Potentiometer

A speed setting can be made through energetic recovery to the input of the fan/controller by connecting the potentiometer to a supply voltage(10 V) provided by an EC fan or controller.
Alternatively, a setpoint (external setpoint) can be preset through the potentiometer.

Equipment/Characteristics:

Rackmount version:
e.g. for installation in control cabinet doors
Axis length 50 mm, ∅ 6 mm
Included front plate: 40 x 40 mm
Included rotary knob

Design version in housing:
Surface mounting or mounting in existing flush receptacles. Device with additional switch contact.

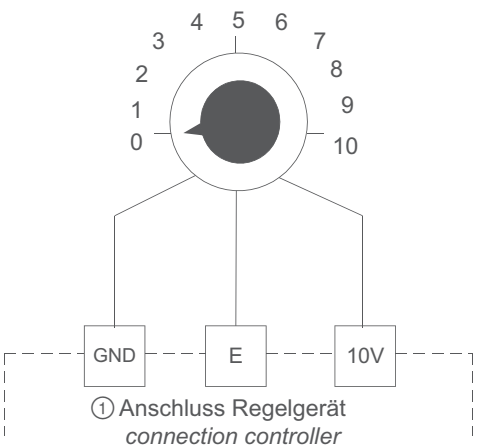
Simple control via rotary knob
Set the desired resistance

Technical data

- Potentiometer 1K: Setting range 0 to 1 kΩ
- Potentiometer 10K: Setting range 0 to 10 kΩ
- Voltage supply: 10 V DC
- Maximum ambient temperature: +35°C
- Swithing contact on pot 10K IP 54: 1 A, 230 V AC
- Radio interference suppression according to EN 61000-6-3
- Interference immunity according to EN 61000-6-2

Potentiometer		
Type	**Article no.**	Setting range
Poti 1K	**00153986**	0-1 kΩ
Poti 10K	**00153989**	0-10 kΩ
Poti 10K IP54	**380058**	0-10 kΩ

Connections



① Connection control unit

General notes

overview

Explanation of technical details

Symbols, Units of Measure

Symbol	Unit	Description
p_{sF}	Pa	Static pressure increase
p_{d2}	Pa	Dynamic pressure
q_v	m^3/h	Air flow
n_N	min^{-1}	Rated speed
P_1	W	Motor input power
P_{sys}	W	Motor input power system (including controller)
U_N	V	Rated voltage
f_N	Hz	Rated frequency
I_N	A	Rated current
I_A	A	Starting current
ΔI	%	Percentage increase of current based on rated current for speed control by voltage reduction
C_{400V}	µF	Capacity
$t_{R(min)}$	°C	Min. admissible ambient temperature
$t_{R(max)}$	°C	Min. admissible ambient temperature
L_{WA5}	dB	Suction side sound power level
η_{statA}	%	Overall efficiency, static according measurement category A at optimum duty point without losses of electronic speed control according to calculation method in ErP-commission regulation No. 327/2011 annex II
N_{actual}	-	Actual efficiency grade of the fan based on an electrical input power of 10 kW at its point of optimum energy
$N_{nominal}$	-	Target efficiency grade at motor input power of 10 kW

Conversion factors

Pressure

		SI-unit	Additional units		
		Pa (N/m^2)	**mbar**	**in.wg**	**psi ($lbs./in^2$)**
SI-unit	**Pa (N/m^2)**	**1**	0.01	0.004015	0.000145
Additional units	**mbar**	100	**1**	0.401463	0.014503
	in.wg	249.10	2.49	**1**	0.036127
	psi ($lbs./in^2$)	6894.76	68.95	27.68	**1**

Air flow

		SI-unit	Additional units		
		m^3/s	**m^3/h**	**l/s**	**cfm**
SI-unit	**m^3/s**	**1**	3600	1000	2118.9
Additional units	**m^3/h**	0.000277	**1**	0.277777	0.588583
	l/s	0.001	3.6	**1**	2.1189
	cfm	0.000472	1.698994	0.471943	**1**

Input power

		W	kW	hp
SI-unit	**W (J/s)**	1	0.001	745.699
Additional units	**kW**	1000	1	0.74569
	hp	0.00134102	1.34102	1

Temperature

		SI-unit	Additional units
		°C	**°F**
SI-unit	**°C**	1	(°C × 1.8) + 32
Additional units	**°F**	(°F – 32) / 1.8	1

Dynamic pressure

Calculation of the dynamic pressure:

$$p_{d2} = k \cdot q_v^2$$

p_{d2}	Dynamic pressure at fan outlet in Pa
k	Constant
q_v	Air flow in m³/h

k factors for the calculation of the dynamic pressure

Cpro-ECblue		**Vpro-ECblue**		**Vpro**		**L-series**		**M-series**	
Impeller	k value	Impeller	k value	Impeller	k value	Impeller	k value	Impeller	k value
		RH19V.1R	$8.05 \cdot 10^{-5}$	RH19V.1R	$8.05 \cdot 10^{-5}$	RH19L.1R	$7.40 \cdot 10^{-5}$	RH22M.1R	$1.45 \cdot 10^{-5}$
		RH22V.1R	$5.90 \cdot 10^{-5}$	RH22V.1R	$5.90 \cdot 10^{-5}$	RH22L.1R	$5.50 \cdot 10^{-5}$	RH22M.2R	$2.00 \cdot 10^{-5}$
		RH22V.2R	$4.30 \cdot 10^{-5}$	RH22V.2R	$4.30 \cdot 10^{-5}$	RH22L.2R	$3.80 \cdot 10^{-5}$	RH25M.1R	$9.40 \cdot 10^{-6}$
RH25C.1R	$1.21 \cdot 10^{-5}$	RH25V.1R	$2.90 \cdot 10^{-5}$	RH25V.1R	$2.90 \cdot 10^{-5}$	RH22L.3R	$6.40 \cdot 10^{-5}$	RH25M.2R	$1.45 \cdot 10^{-5}$
RH28C.1R	$7.88 \cdot 10^{-6}$	RH28V.1R	$9.10 \cdot 10^{-6}$	RH28V.1R	$9.10 \cdot 10^{-6}$	RH22L.4R	$2.40 \cdot 10^{-5}$	RH28M.1R	$6.00 \cdot 10^{-6}$
RH31C.1R	$4.95 \cdot 10^{-6}$	RH31V.1R	$5.70 \cdot 10^{-6}$	RH31V.1R	$5.70 \cdot 10^{-6}$	RH25L.1R	$2.50 \cdot 10^{-5}$	RH28M.2R	$7.70 \cdot 10^{-6}$
RH35C.1R	$3.14 \cdot 10^{-6}$	RH35V.1R	$3.60 \cdot 10^{-6}$	RH35V.1R	$3.60 \cdot 10^{-6}$	RH28L.1R	$2.50 \cdot 10^{-5}$	RH31M.1R	$4.60 \cdot 10^{-6}$
RH40C.1R	$1.99 \cdot 10^{-6}$	RH40V.1R	$2.30 \cdot 10^{-6}$	RH40V.1R	$2.30 \cdot 10^{-6}$	RH28L.2R	$9.40 \cdot 10^{-6}$	RH31M.2R	$1.00 \cdot 10^{-6}$
RH45C.1R	$1.23 \cdot 10^{-6}$	RH45V.1R	$1.40 \cdot 10^{-6}$	RH45V.1R	$1.40 \cdot 10^{-6}$	RH31L.1R	$4.60 \cdot 10^{-6}$	RH31M.3R	$5.40 \cdot 10^{-5}$
RH50C.1R	$7.70 \cdot 10^{-7}$	RH50V.1R	$9.30 \cdot 10^{-7}$	RH50V.1R	$9.30 \cdot 10^{-7}$			RH35M.2R	$6.10 \cdot 10^{-5}$
RH56C.1R	$5.00 \cdot 10^{-7}$	RH56V.1R	$5.70 \cdot 10^{-7}$	RH56V.1R	$5.70 \cdot 10^{-7}$			RH35M.3R	$3.60 \cdot 10^{-6}$
RH63C.1R	$3.18 \cdot 10^{-7}$	RH63V.1R	$3.50 \cdot 10^{-7}$	RH63V.1R	$3.50 \cdot 10^{-7}$			RH40M.2R	$9.30 \cdot 10^{-5}$
								RH45M.2R	$6.30 \cdot 10^{-6}$
								RH50M.2R	$4.70 \cdot 10^{-5}$

Example:

Type RH**45**C-ZID.GG.CR. article no. 114613

Size	**Constant**
RH25C.1R	$1.21 \cdot 10^{-5}$
RH28C.1R	$7.88 \cdot 10^{-6}$
RH31C.1R	$4.95 \cdot 10^{-6}$
RH35C.1R	$3.14 \cdot 10^{-6}$
RH40C.1R	$1.99 \cdot 10^{6}$
RH45C.1R	**$1.23 \cdot 10^{-6}$**
RH50C.1R	$7.70 \cdot 10^{-7}$
RH56C.1R	$5.00 \cdot 10^{-7}$
RH63C.1R	$3.18 \cdot 10^{-7}$

$p_{d2} = 1.23 \cdot 10^{-6} \cdot q_v^2$

Notes pertaining to the ErP evaluation

The identifiers ErP2013 and/or ErP2015 indicate that a fan meets the minimum efficiency factors of the respective level according to the ErP directive. The actual efficiency in the efficiency optimum of the fan (used for the ErP evaluation) is identified by n_{statA}. In order to meet the requirements of the ErP, this efficiency must reach a certain minimum value (target energy efficiency). The efficiency N is a parameter in the calculation of the target energy efficiency of the ErP directive. As a reference value for the required efficiency N_{nom} we also specify the actual efficiency N_{act} based on a motor input power of 10 kW.
All ErP-relevant data refers to measured data according to measurement category A, which was determined using the Ziehl-Abegg standard full nozzle according to the applicable drawing and dimension chart, without guard grille.

Inlet ring Page 450

Aerodynamics and Acoustics

Measurement method

The characteristic field display shows the pressure increase Δp_{sF} in Pa as a function of the air flow q_v in m^3/h.

Technical terms of delivery

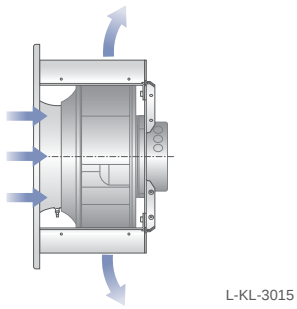
The specified performance data corresponds to the accuracy class **3** according to **DIN 24 166** and applies to the rated data and air flow rate charatceristic curves at rated voltage.

Fan test bench

Cpro-ECblue, Vpro-ECblue, Vpro:
The fan characteristic curves are determined on a combined air and noise test bench.
The characteristic curves are measured according to **DIN EN ISO 5801**, or
AMCA 210-99. The sound power levels are measured in compliance with **DIN EN ISO 3745** and **ISO 13347-3** using the enveloping surface measuring method
.
The figure below shows an example of the measuring setup. The fan is attached to the measuring chamber with direct air intake and direct air discharge (installation type A in compliance with **DIN ENISO 5801** and
AMCA 210-99).
L-series, M-series:
The fan characteristic curves are measured on an intake side chamber test bench in compliance with **DIN 24 163 Part 2** and **ISO 5801**.

Air density

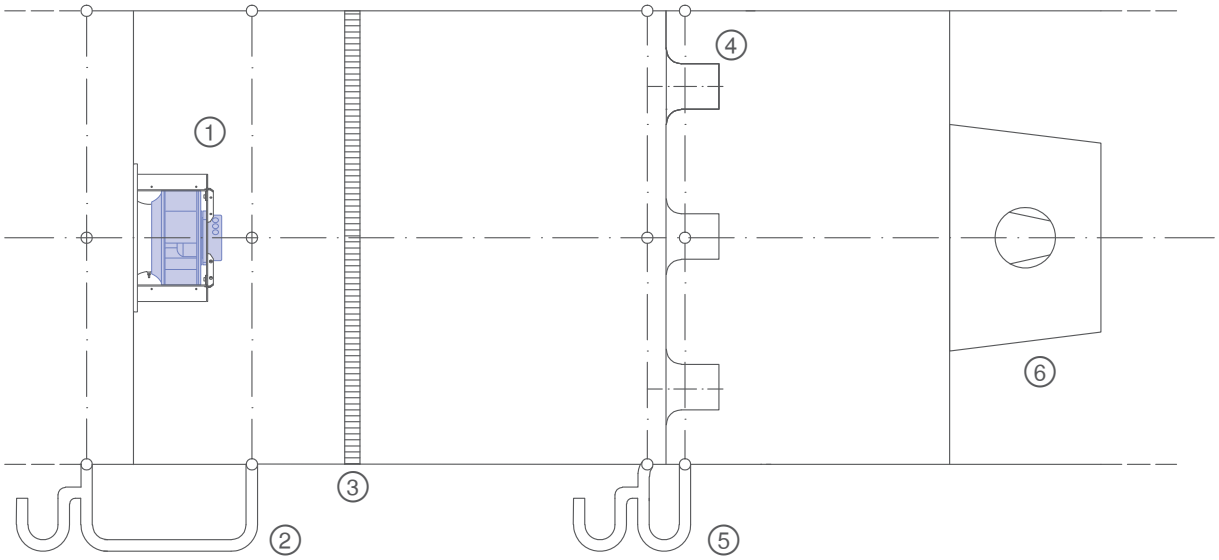
The air temperature and humidity are conditioned during the measurement using heat exchangers and are largely kept constant. The characteristic curves shown refer to the measuring density. The mean measuring density is 1.6 kg/m^3.



L-KL-3015

Installation type A according to ISO 5801

Technology Centre (InVent)



① Test fan
② p_{sF}
③ Flow straightener
④ Nozzles
⑤ Δp Differential pressure
⑥ Auxiliary fan

Noise level data

Unless otherwise indicated, this catalogue specifies the intake side, A-evaluated sound power levels L_{WA}.
The sound power levels are determined by using the enveloping surface method in compliance with ISO 13347-3, accuracy class 1 and/or
DIN EN ISO 3745.

This is done by measuring the acoustic pressure level Lp of the individual third-octave bands at 12 points on the enveloping surface (Fig. Ia). The measured acoustic pressure levels for the third-octave bands are initially used to calculate the sound power level for the third-octave bands and then the intake side sound power level LW. To do this, the fans are installed with a free intake (from the measuring chamber) andand (air) outlet (into the surrounding area). The standard measurements are carried out without the need for additional parts,, e.g. guard grille. The measuring equipment used complies with DIN EN 61672.

Because of the different weighting of the third-octave sound power level, the A-evaluation, which is typically carried out, takes into account the subjective nature of human sound perception. The A-tested sound power level is the standard variable used to assess the sound characteristics of technical equipment.

Calculation of pressure side sound power level and total sound power level

For axial fans, the pressure side sound power level is approximately equal to the intake side level. The total sound power level is calculated by adding up the power from the sound power levels of both the intake and the pressure side (see DIN 45 635 Part 1, Appendix F, DIN EN ISO 3745). Thus, it is approximately 3 dB higher than the intake side sound power level specified in the catalogue.

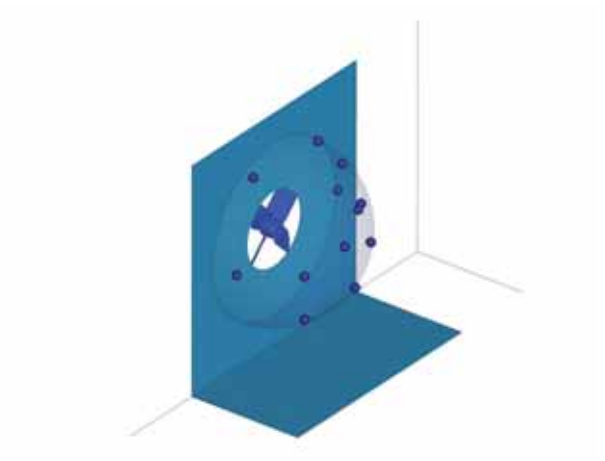


Fig.Ia: Microphone positions of fan

Fig. Ib: Fan test-bench

Determination of total sound power level during the interaction of several sound sources

The total sound power level of several individual sound sources operating concurrently is calculated by adding the power of the individual levels in compliance with DIN EN ISO 3745. This equation is the basis for the diagrams in Fig. II and III.

To add up several sound sources with the same level, please see diagram (Fig. II) for complete level information; e.g. 6 identical sound sources operating concurrently results in a total level that is approx. 8 dB higher.

The total sound power level of two sound sources with different levels can be seen in diagram Fig. III. For example, two sound sources whose sound power levels differ by 4 dB produce a total sound power level that is around 1.5 dB higher than that of the louder sound source.

Determination of acoustic pressure level

The A-tested acoustic pressure level LpA for rooms with average absorption capacity for a distance of 1m from the fan axis is calculated by subtracting 7 dB from the A sound power level L_{WA}. In most cases, this assumption is correct and provides a sufficient level of accuracy. However, the sound characteristics can be hugely influenced by the individual installation situation.
Absorption of the acoustic pressure level, depending on the distance with partial reflection, is shown in Fig. IV.

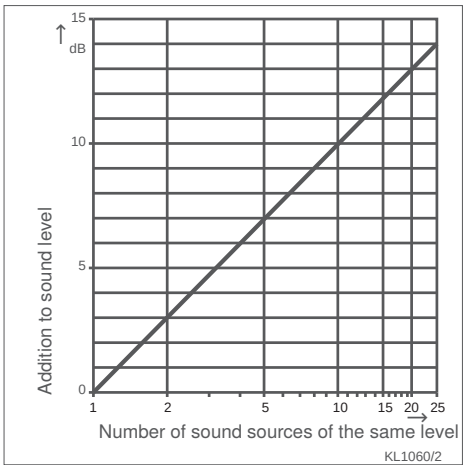


Fig. II: Addition of several sound sources

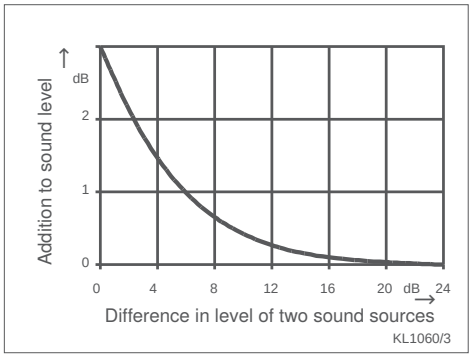


Fig. III: Sound sources of different levels

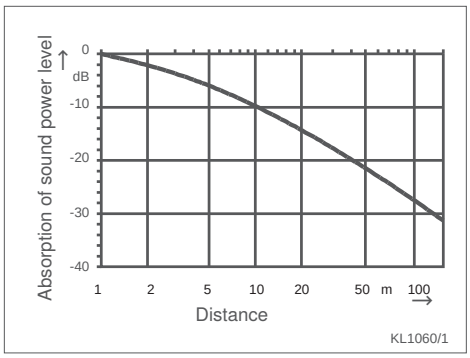


Fig. IV: Reduction of sound pressure level

Electrical connection and motor

Fan drive

The three phase (3~) or single phase (1~) external rotor motor integrated into the fan hub meets the requirements for circulating electric machines set forth in DIN EN 60 034-1
(VDE 0530 Part 1).
AC technology:
The rated voltage for three phase alternating current motors is 400 V,
for single phase alternating current motors it is 230 V.
EC technology:
The centrifugal fans with ECblue technology are powered by a highly efficient EC-motor with integrated commutation technology. Depending on the version, the ECblue motors have a broad voltage range.
1~ 200-277 V, 50/60 Hz
3~ 200-240 V, 50/60 Hz
3~ 380-480 V, 50/60 Hz

Electrical connection

Voltage
The three phase or single phase alternating current motors are suitable for 400 V ± 10 % or 230 V ± 10 % and for 50/60 Hz. For details please refer to data sheet.

Motor connection
Mains connection via terminal box or outgoing connection cable as shown in dimension drawings. Cable length tolerance ± 3 cm.

Terminal box
The terminal boxes are made of shock-proof, weather-resistant plastic or die-cast aluminium.

All terminal boxes have two M20x1.5 cable inlet openings.

Connecting cables
Heat and UV-resistant, halogen-free hoses, identified by a colour code or connection designations are used.
The cables are laid according to VDE 0282 Part 804 and are suitable for operating voltages of up to 690 V.
Temperature resistance -50 to +150 °C.
The connection ends are stripped 10 cm and fitted with wire end ferrules.

Operating capacitor
See chapter System components.

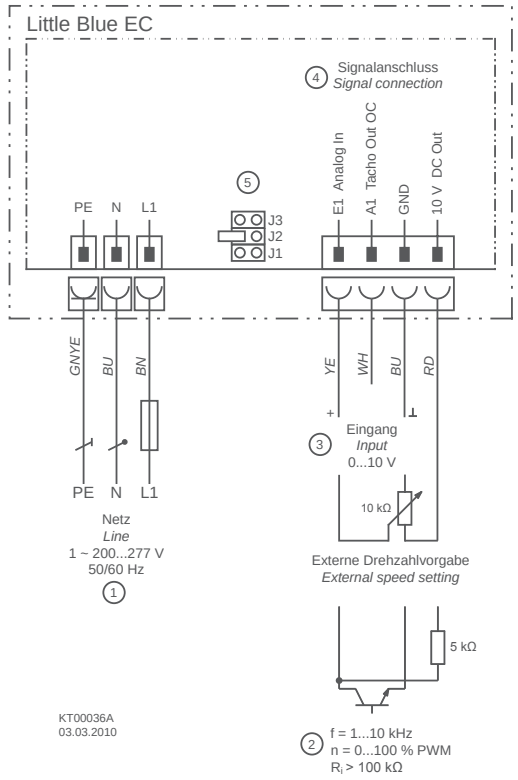
Operation on the frequency inverter

ZIEHL-ABEGG centrifugal fans are suitable for operation with frequency inverters, however, the following has to be observed:
All-pole active sinefilters between the inverter and the motor (sinusoidal output voltage! must be installed phase to phase, phase to PE conductor) as supplied by some inverter manufacturers. For more details please request our technical information sheet L-TI-0510.
du/dt filters (also known as motor or attenuation filters) may not be used instead of sinefilters.
When using sinefilters, it may no longer be necessary to use screened motor power cables, metal terminal boxes, or a second earth connection on the motor (please consult your sinefilter supplier).

Connection diagrams

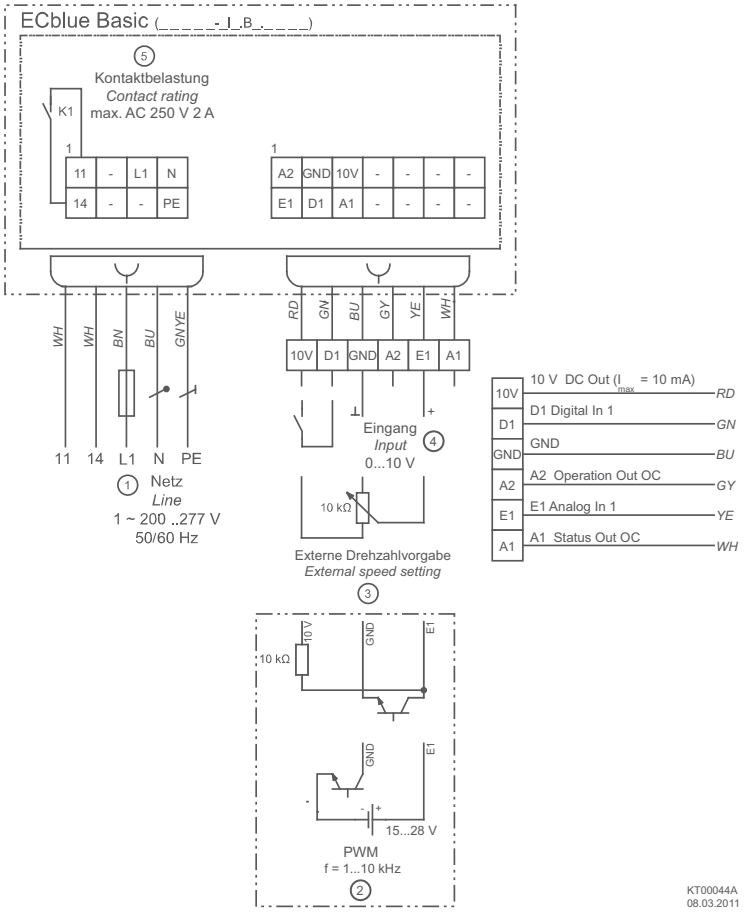
EC-Technology

KT00036A



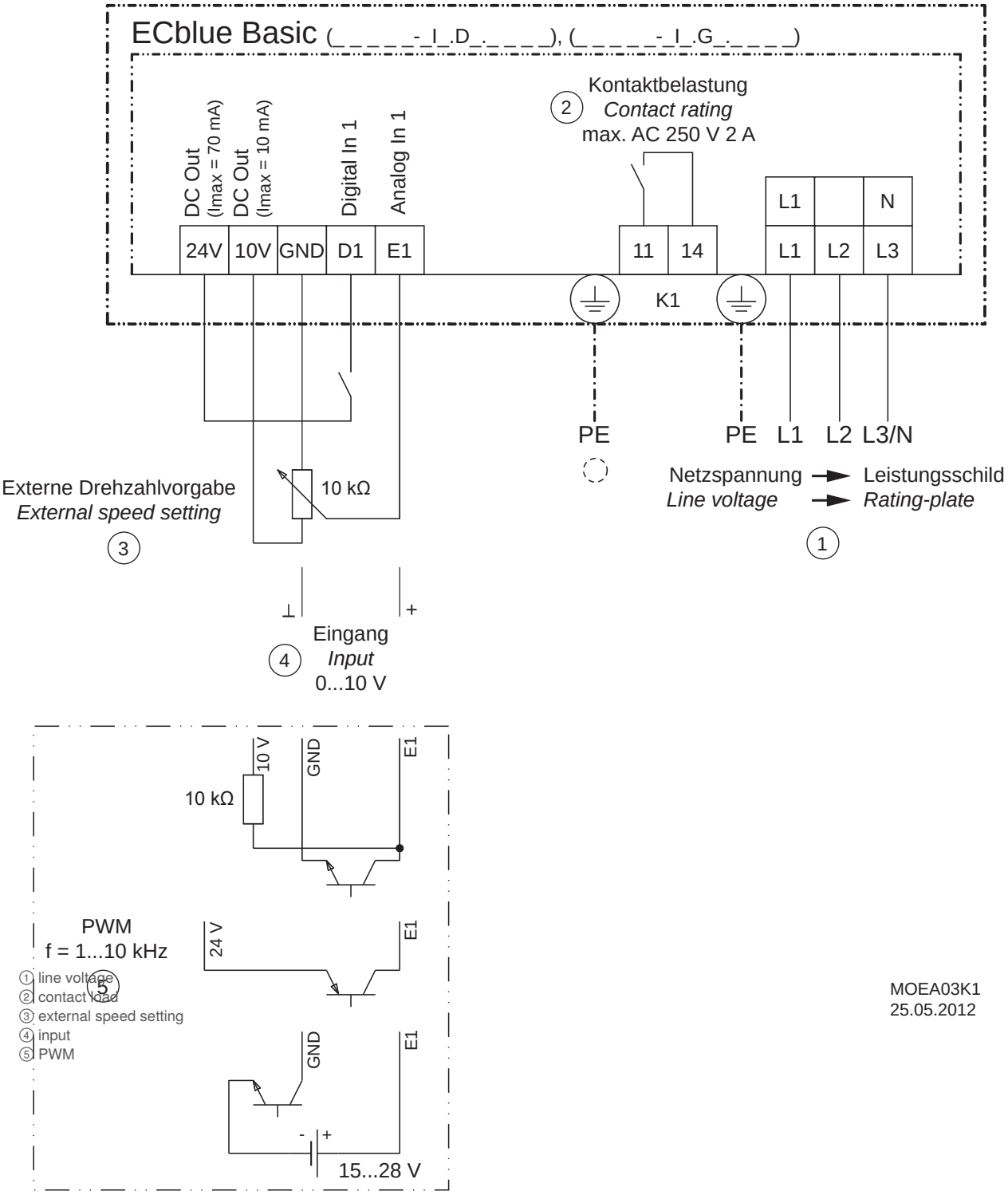
① Mains 1~ 200...277 V
② External speed preset: 0...100 % PWM
③ External speed preset: 0...10 V
④ Signal connection
⑤ Operating mode selection (J2 and J3) and reversal of direction of rotation (J1)

KT00044A



① Line
② PWM
③ External speed setting
④ Input
⑤ Contact rating

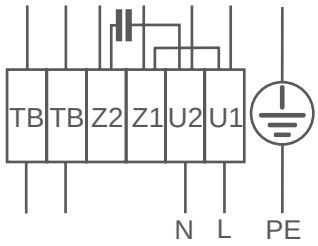
1360-401



MOEA03K1
25.05.2012

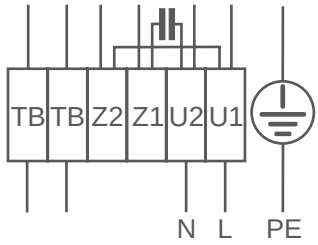
Connection diagrams
AC-Technologie

104XA
For 1~-motor with capacitor and thermostatic switch (if built in).
Airflow direction: V
Direction of rotation: clockwise
Please keep the wiring diagram in the terminal box.



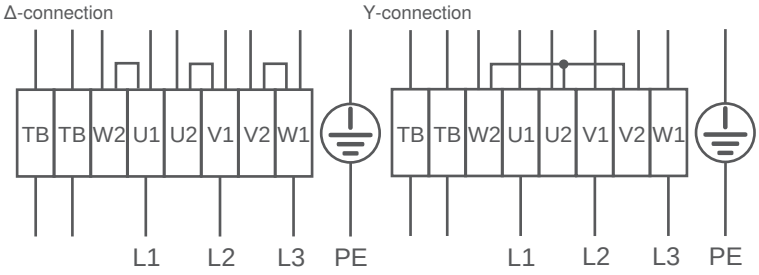
Cable colours:
U1 brown
U2 blue
Z1 black
Z2 orange
TB white

104XB
For 1~-motor with capacitor and thermostatic switch (if built in).
Airflow direction: A
Direction of rotation: counter clockwise
Please keep the wiring diagram in the terminal box.



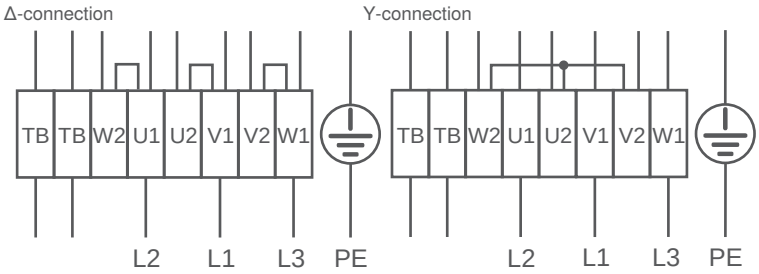
Cable colours:
U1 brown
U2 blue
Z1 black
Z2 orange
TB white

106XA
For 3~-motor with one speed and thermostatic switch (if built in).
Airflow direction: V
Direction of rotation: clockwisef
Please keep the wiring diagram in the terminal box.



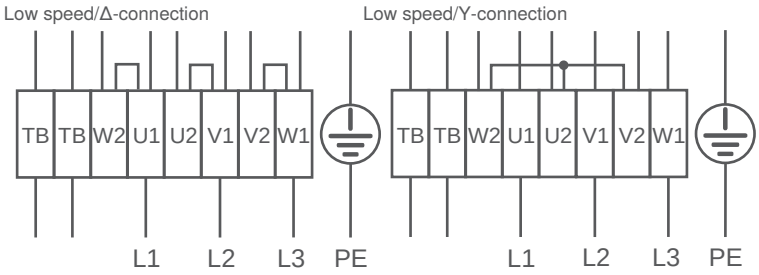
Cable colours:
U1 brown
U2 blue
Z1 black
Z2 orange
TB white

106XB
For 3~-motor with one speed and thermostatic switch (if built in).
Airflow direction: V
Direction of rotation: clockwise
Please keep the wiring diagram in the terminal box.



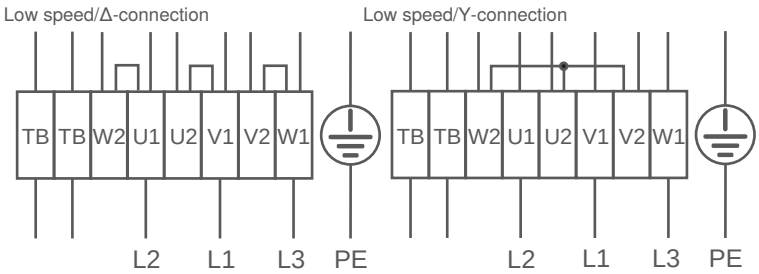
Cable colours:
U1 brown
V1 blue
W1 black
U2 red
V2 grey
W2 orange
TB white

108XA
For 3~-Motor with 2 speeds (Δ-/Y switch over) and thermostatic switch (if built in). Without bridge when using speed change-over switch.
Direction of air flow: V
Direction of rotation: Counter clockwise
Keep wiring diagram in terminal box.



Cable colours:
U1 brown
V1 blue
W1 black
U2 red
V2 grey
W2 orange
TB white

108XB
For 3~ motor with 2 speeds (Δ-/Y switch over) and thermostatic switch (if built in). Without bridge when using speed change-over switch.
Direction of airflow: A
Direction of rotation: Counter clockwise
Keep wiring diagram in terminal box.

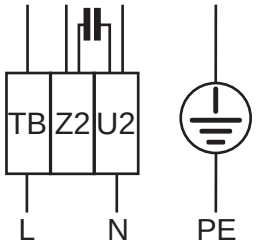


Cable colours:
U1 brown
V1 blue
W1 black
U2 red
V2 grey
W2 orange
TB white

177XA

1~ Motor with capacitor and thermostats
Airflow direction: V
Rotat. direction: clockwise rotation

Please store connection diagram in the terminal box.

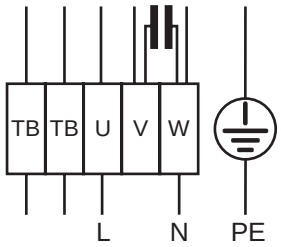


Cable colours:
U2 blue or grey
Z2 black
TB brown

126XA

1~ Motor with capacitor and thermostats (if installed)
Airflow direction: V
Rotat. direction: clockwise rotation

Please store connection diagram in the terminal box.

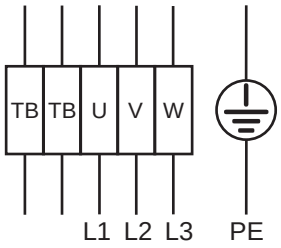


Cable colours:
U2 blue or grey
Z2 black
TB brown

159A

1~ Motor with 1 speed and thermostats (if installed)
Airflow direction: V
Rotat. direction: clockwise rotation

Please store connection diagram in the terminal box.

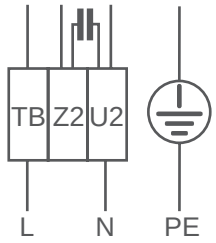


Cable colours:
U2 blue or grey
Z2 black
TB brown

177X

1~ Motor with capacitor and thermostat.
Please store connection diagram in the terminal box.

Other speeds possible with capacitors connected in series.



Cable colours:
U2 blue or grey
Z2 black
TB brown

Installation and usage information

Measuring device for determining air volume

The active pressure process compares the static pressure before the inlet nozzle with the static pressure in the inlet ring at the place of greatest constriction (lowest free nozzle cross sectional area). Using the energy conservation principle, the active pressure (differential pressure of the static pressures) can be assigned to the air flow as follows:

Under normal conditions at 20°C:

$$q_V = k \cdot \sqrt{\Delta p_w}$$

Under fluctuating air conditions:

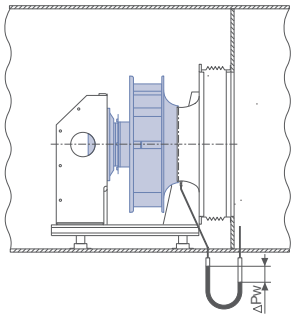
$$q_V = \sqrt{\frac{\rho_{20}}{\rho_{Betr}}} \cdot k_{20} \cdot \sqrt{\Delta p_w}$$

q_v	Air flow in m³/h
Δp_w	Differential pressure of the static pressures in Pa
k	Factor for specific nozzle properties, nozzle coefficient
ρ_{20}	Standard air density with 1.2 kg/m³
ρ_{BP}	Air density at current operating point in kg/m³

Nozzle coefficients

Size	Cpro-ECblue	Vpro-ECblue/ Vpro	M-series
225			57
250	60		68
280	75	86	86
315	95	112	96
355	121	144	142
400	154	180	172
450	197	220	217
500	252	291	274
560	308	360	
630	381	445	

* ρ = 1.20 kg/m³



Example:
If an active pressure of 700 Pa is measured for size ER63C, the air flow can be calculated as follows, using this simplified formula:

$$q_v = k \cdot \sqrt{\Delta p_w} = 381 \cdot \sqrt{700} = 10080 \text{ m}^3/\text{h}$$

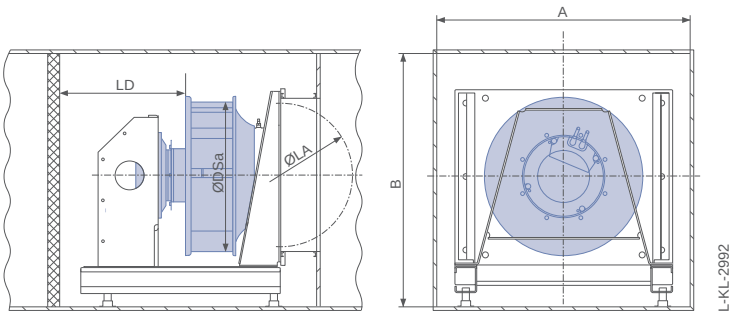
The corresponding active pressure / air flow characteristic curves can be downloaded from our website in the Download section under Product Information.

The nozzle coefficients (k factors) were determined under laboratory conditions and with an undisturbed supply. If intake guard grilles are used (fitted in front of the inlet ring), these nozzle factors cannot be used for air flow determination because of a change in the supply flow and other static pressures.

Notes pertaining to the measuring method
The measured values, which were determined using the active pressure method, are subject to a tolerance of +/- 8.0% as they pertain to the air flow result. This tolerance is reached above a minimum air velocity of approx. 9.0 m/s at the place of greatest constriction.
The tolerances cannot be clearly quantified below this minimum air velocity.

This air flow measuring method is only suitable for acceptance measurements on site.
For a more accurate air flow determination in the existing installation setup, a counter calibration of the air flow has to be carried out on site to measure the active pressure. The nozzle coefficiemts determined during this process apply exclusively to this installation setup.

Installation instructions



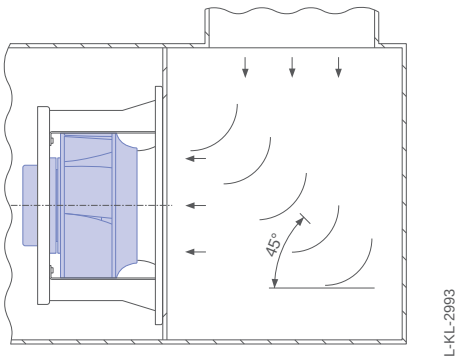
Distances to other components

Distance on the suction side: LA ≥ 0.5 × DSa
In the case of disturbance flow (per example curved pipe at the suction side, flaps etc.): LA ≥ 1 x DSa

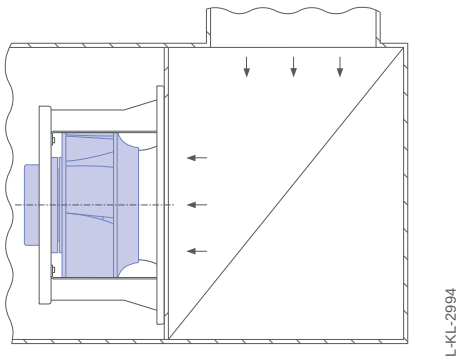
Distance on the duct side: LD ≥ 1 x DSa

housing wall distances: A ≥ 1.8 x DSa; A = B

Additional baffle plates **must be** fitted in the suction chamber over the whole width of the AHU if there is a 90° change of direction before the intake.



Baffle plates as a ¼ circle

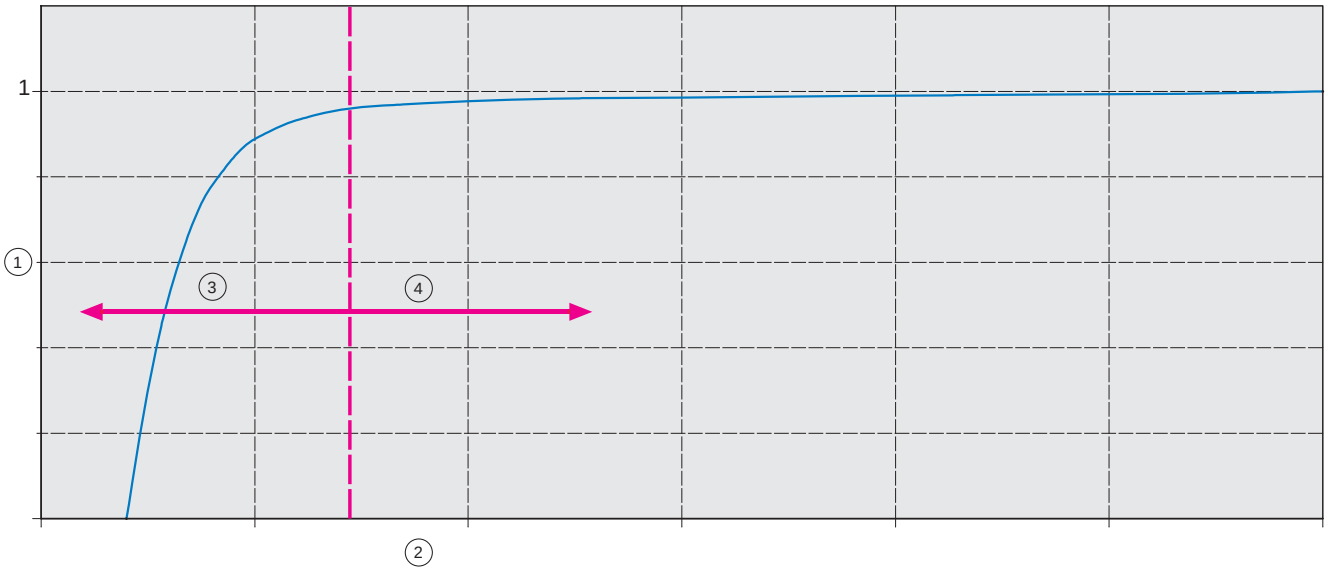


Baffle plate as a sheet metal mounted in an angle

Impact of installation in the air handling unit

Changes when installing into an air handling unit

When selecting the RH..C, GR..C or ER..C types it is possible to enter the dimensions of the air handling unit.
The caracteristic curve of the fan and the acoustic power as compared with the characteristic curve information are influenced by installation of the fan in an air handling unit. Likewise, using a guard grille also influences the characteristic curve and the acoustics. ZIEHL-ABEGG analysed this influence on the behaviour of centrifugal fans in experiments. These influenced can be calculated in the FANselect programme. The diagram is merely intended to display a qualitative tendency of the empirically ascertained correction factors.

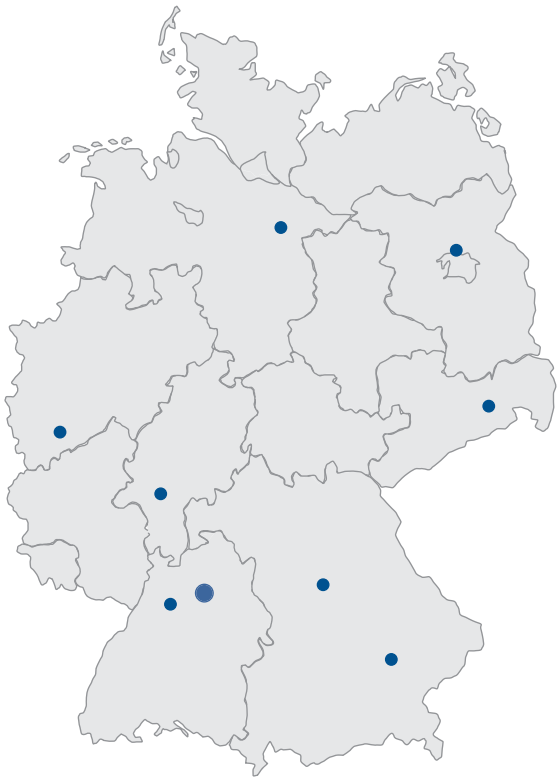


① Devaluation
② Reference surface
③ Impermissible area acc. RAL Quality Assurance Association
④ Permissible area acc. RAL Quality Assurance Association

In box sections with unequal side lengths, a reference surface F (equivalent parameter) consisting of device-width A and device-high B can be calculated as an iteration when there is a minimum clearance of 0.3 x DSa between the impeller and the device wall: F= √AxB

ZIEHL-ABEGG Germany

Field representatives



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The sale of these products is subject to the Technical Conditions of Sale for fans in Precision Class 1 in accordance with DIN 24 166.

The customer is obligated to inform the supplier about general information concerning the intended use, the type of installation, the operating conditions and any other conditions that need to be taken into consideration if the order is not based on catalogue information.

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