

Movement by Perfection

# Fans and Control Technology

for Agriculture  
03/2016 Edition

**Addendum**  
**50 Hz AC**

The Royal League in ventilation, control and drive technology

# FE2owlet

for three phase alternating current, 4-4 pole

FN063-VD



## Description

Motor technology: AC  
 Rated voltage  $U_N$ : 3- 400 V ( $\Delta/Y$ )  $\pm 10$  %\*  
 Rated frequency  $f_N$ : 50 Hz\* (60Hz data available)  
 Input power  $P_1$ : 1.75/1.35 kW\*  
 Rated current  $I_N$ : 3.70/2.20 A\*  
 Rated speed  $n_N$ : 1400/1210 min<sup>-1</sup>\*  
 Starting current  $I_s$ : 20.00 / 6.50 A  
 Current increase  $\Delta I$ : 5 %  
 Thermal class: **THCL155\***  
 Min. permitted ambient temperature  $t_{R(min)}$ : -40 °C\*\*\*  
 Max. permitted ambient temperature  $t_{R(max)}$ : 70 °C  
 Electrical connection: Terminal box  
 Number of blades: 7  
 Degree of protection : IP54  
 Motor protection: thermal contact  
 Blades: Aluminium, 2 coat paint, jet black  
 Rotor: Aluminium, 2 coat paint, jet black  
 Conformity: ErP 2015, CE

## ErP-data

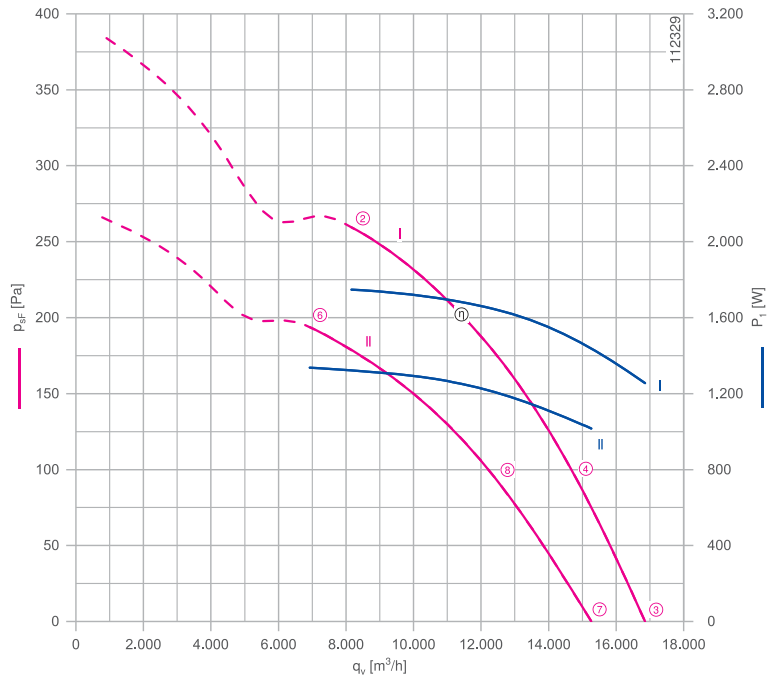
Efficiency  $\eta_{statA}$ : 37.5 %  
 Efficiency grade:  $N_{actual} = 42.5 / N_{target} = 40$ \*\*

\* Rated data

\*\*ErP 2015

\*\*\* Continuous operation with occasional starts (S1) according to DIN EN 60034-1:2011-02. Occasional starting between -40 °C and -25 °C is permissible. Continuous operation below -25 °C only with special bearings for refrigeration applications on request.

## Characteristic curve



Measured in full bell mouth without guard grille in installation type A according to ISO 5801.

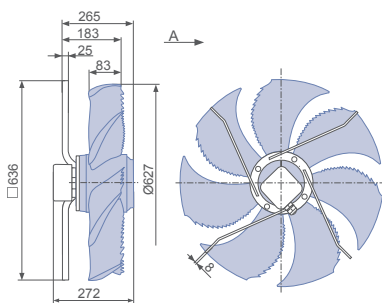
Connection diagram

1360-108XB

## Dimensions mm

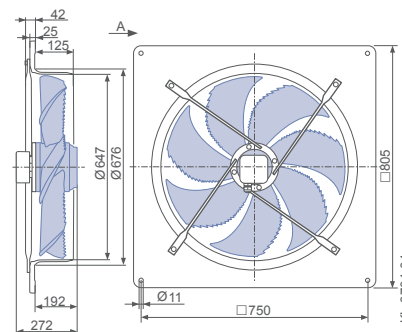
### Airflow direction A

Design T - for installation in chimney exhausts, without guard grille



L-KL-3444-04

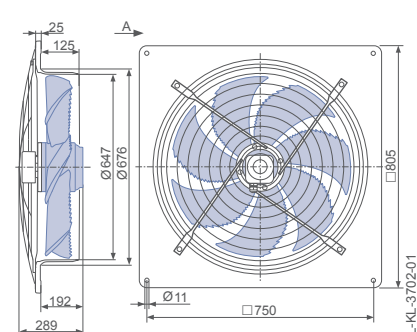
Design Q - square full bell mouth, without guard grille



L-KL-3701-01

Wall ring plate made of composite material

Design Q - square full bell mouth, guard grille suction side



L-KL-3702-01

Wall ring plate made of composite material



Performance data

Type	Characteristic curve	Connection	Voltage	Operating point	Current	Input power	Speed	Acoustic pressure level 7m	Specific power
FN063-VD_6N_7P6	I	Δ	400	②	3.70	1750	1400		217.6
				③	3.10	1250	1430	59	74.5
				④	3.40	1500	1420	58	101.9
				⑥	2.20	1350	1210		192.8
	II	Y	⑦	1.75	1000	1300	57	66.6	
			⑧	2.10	1200	1240	55	99.2	

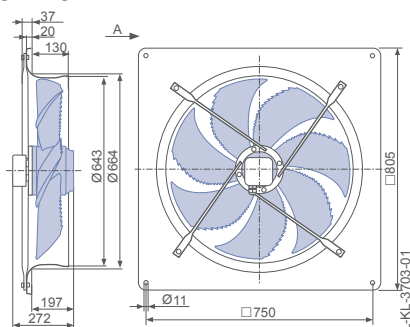
Fan ordering information

Airflow direction A					
Design	T (without guard grille)	Q (without guard grille)	Q (guard grille suction side)	Q (without guard grille)	Q (guard grille suction side)
<b>Type</b>	<b>FN063-VDT.6N.A7P6</b>	<b>FN063-VDQ.6N.A7P6</b>	<b>FN063-VDQ.6N.A7P6</b>	<b>FN063-VDQ.6N.A7P6</b>	<b>FN063-VDQ.6N.A7P6</b>
<b>Article no.</b>	<b>177602</b>	<b>177603</b>	<b>177604</b>	<b>177605</b>	<b>177606</b>
Wall ring plate		Wall ring plate made of composite material	Wall ring plate made of composite material	Wall ring plate made of coated sheet steel	Wall ring plate made of coated sheet steel
Weight kg	25.10	30.60	32.90	35.50	37.80
Supply temperature	-10°C - max 40°C in design with wall ring plate made of composite material				

Control technology

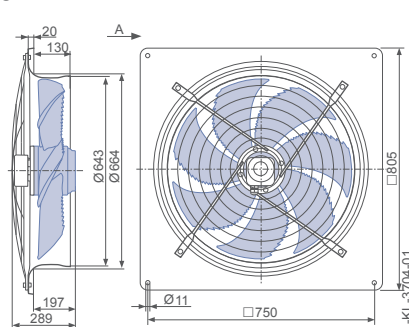


Design Q - square full bell mouth, without guard grille



Wall ring plate made of coated sheet steel

Design Q - square full bell mouth, guard grille suction side



Wall ring plate made of coated sheet steel

# FE2owlet

for three phase alternating current, 4-4 pole

FNO7 1-VD



## Description

Motor technology: AC  
 Rated voltage  $U_N$ : 3- 400 V ( $\Delta/Y$ )  $\pm 10$  %\*  
 Rated frequency  $f_N$ : 50 Hz\*  
 Input power  $P_i$ : 2.60/1.70 kW\*  
 Rated current  $I_N$ : 4.80/2.90 A\*  
 Rated speed  $n_N$ : 1330/1050 min<sup>-1</sup>\*  
 Starting current  $I_A$ : 20.00 / 6.50 A  
 Current increase  $\Delta I$ : 5 %  
 Thermal class: **THCL155\***  
 Min. permitted ambient temperature  $t_{R(min)}$ : -40 °C\*\*\*  
 Max. permitted ambient temperature  $t_{R(max)}$ : 60 °C  
 Electrical connection: Terminal box  
 Number of blades: 7  
 Degree of protection : IP54  
 Motor protection: thermal contact  
 Blades: Aluminium, 2 coat paint, jet black  
 Rotor: Aluminium, 2 coat paint, jet black  
 Conformity: ErP 2015, CE

## ErP-data

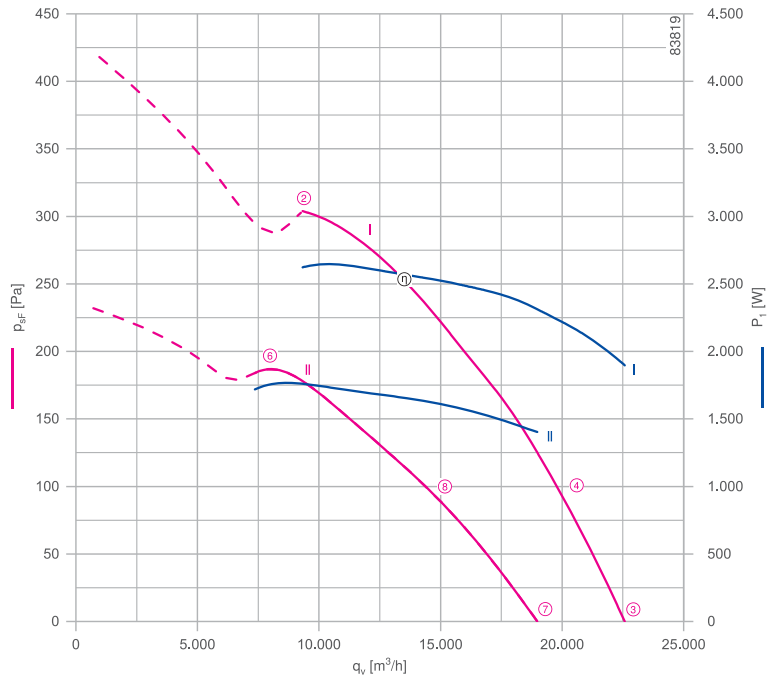
Efficiency  $\eta_{statA}$ : 37.9 %  
 Efficiency grade:  $N_{actual} = 41.7 / N_{target} = 40$ \*\*

\* Rated data

\*\*ErP 2015

\*\*\* Continuous operation with occasional starts (S1) according to DIN EN 60034-1:2011-02. Occasional starting between -40 °C and -25 °C is permissible. Continuous operation below -25 °C only with special bearings for refrigeration applications on request.

## Characteristic curve



Measured in full bell mouth without guard grille in installation type A according to ISO 5801.

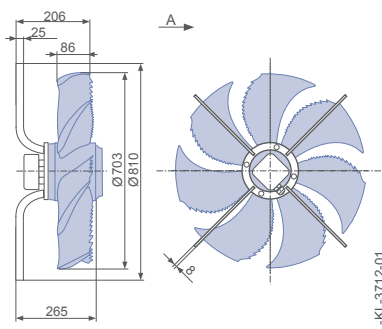
Connection diagram

1360-108XB

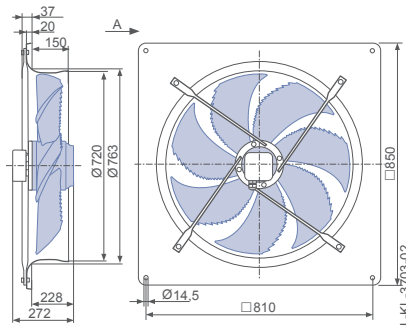
## Dimensions mm

### Airflow direction A

Design T - for installation in chimney exhausts, without guard grille

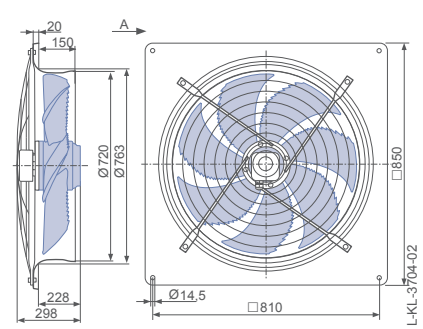


Design Q - square full bell mouth, without guard grille



Wall ring plate made of coated sheet steel

Design Q - square full bell mouth, guard grille suction side



Wall ring plate made of coated sheet steel



Performance data

Type	Characteristic curve	Connection	Voltage	Operating point	Current	Input power	Speed	Acoustic pressure level 7m $L_{pA}$ dB(A)	Specific power $P_{spez}$ Wh/1000m <sup>3</sup>
			U V		I A	$P_1$ W	n min <sup>-1</sup>		
FN071-VD_6N_7P2	I	Δ	400	②	4.80	2600	1330		281.2
				③	3.90	1900	1390	58	84.0
				④	4.40	2200	1360	56	112.9
				⑥	2.90	1700	1050		236.5
	II	Y	400	⑦	2.30	1400	1170	54	73.9
				⑧	2.70	1650	1090	51	113.5

Fan ordering information

Airflow direction A			
Design	T (without guard grille)	Q (without guard grille)	Q (guard grille suction side)
			
<b>Type</b>	<b>FN071-VDT.6N.A7P2</b>	<b>FN071-VDQ.6N.A7P2</b>	<b>FN071-VDQ.6N.A7P2</b>
<b>Article no.</b>	<b>177621</b>	<b>177622</b>	<b>177623</b>
Wall ring plate		Wall ring plate made of coated sheet steel	Wall ring plate made of coated sheet steel
Weight kg	26.00	36.90	40.50

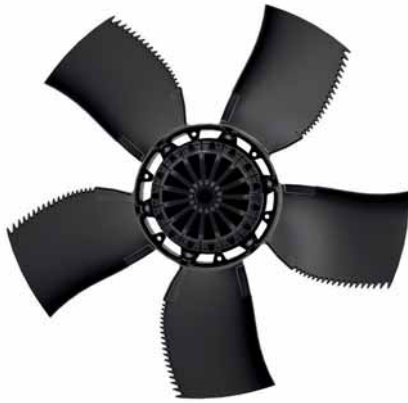
Control technology

Frequency inverters Fcontrol 3~	Motor protection units 3~	Electronic voltage controllers 3~
		

# FE2owlet

for three phase alternating current, 4-4 pole

FN080-VD



## Description

Motor technology: AC  
 Rated voltage  $U_N$ : 3- 400 V ( $\Delta/Y$ )  $\pm 10$  %\*  
 Rated frequency  $f_N$ : 50 Hz\*  
 Input power  $P_i$ : 3.90/2.60 kW\*  
 Rated current  $I_N$ : 6.80/4.20 A\*  
 Rated speed  $n_N$ : 1310/1050 min<sup>-1</sup>\*  
 Starting current  $I_A$ : 32.00 / 10.00 A  
 Current increase  $\Delta I$ : 5 %  
 Thermal class: **THCL155**\*  
 Min. permitted ambient temperature  $t_{R(min)}$ : -40 °C\*\*\*  
 Max. permitted ambient temperature  $t_{R(max)}$ : 70 °C  
 Electrical connection: Terminal box  
 Number of blades: 5  
 Degree of protection : IP54  
 Motor protection: thermal contact  
 Blades: Aluminium, 2 coat paint, jet black  
 Rotor: Aluminium, 2 coat paint, jet black

## ErP-data

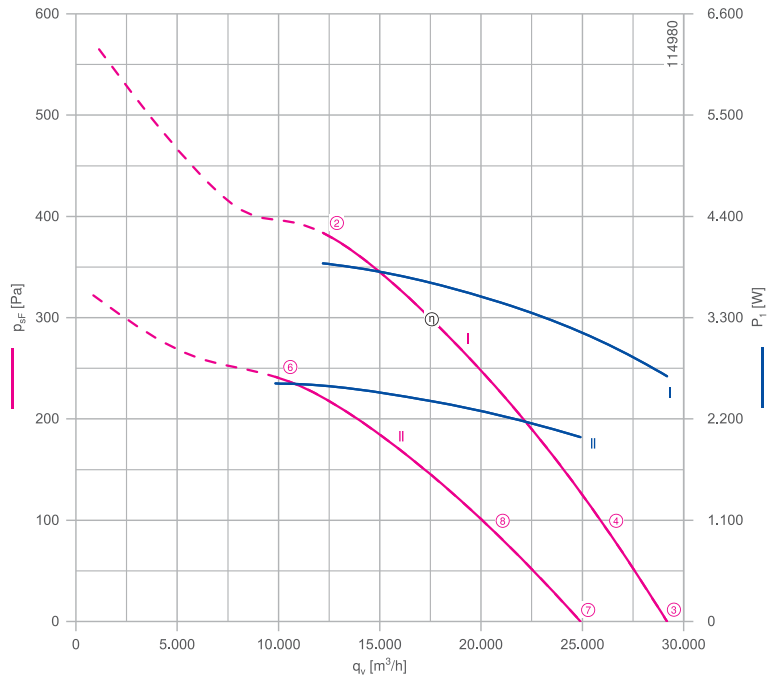
Efficiency  $\eta_{statA}$ : 40.4 %  
 Efficiency grade:  $N_{actual} = 43.2 / N_{target} = 40$ \*\*

\* Rated data

\*\*ErP 2015

\*\*\* Continuous operation with occasional starts (S1) according to DIN EN 60034-1:2011-02. Occasional starting between -40 °C and -25 °C is permissible. Continuous operation below -25 °C only with special bearings for refrigeration applications on request.

## Characteristic curve



Measured in full bell mouth without guard grille in installation type A according to ISO 5801.

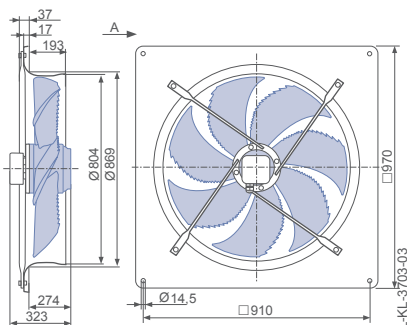
Connection diagram

1360-108XB

## Dimensions mm

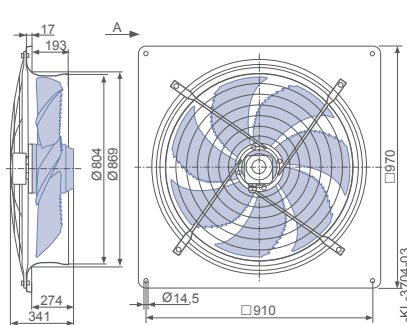
### Airflow direction A

Design Q - square full bell mouth, without guard grille



Wall ring plate made of coated sheet steel

Design Q - square full bell mouth, guard grille suction side



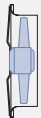

Wall ring plate made of coated sheet steel

Performance data

Type	Characteristic curve	Connection	Voltage	Operating point	Current	Input power	Speed	Acoustic pressure level 7m L <sub>pA</sub> dB(A)	Specific power P <sub>spez</sub> Wh/1000m <sup>3</sup>
			U V		I A	P <sub>1</sub> W	n min <sup>-1</sup>		
FN080-VD_7Q_5P7	I	Δ	400	②	6.80	3900	1310		319.8
				③	5.20	2700	1380	67	91.3
				④	5.60	3100	1360	66	117.7
				⑥	4.20	2600	1050		267.8
	II	Y	400	⑦	3.20	2000	1180	64	80.3
				⑧	3.70	2300	1120	60	114.1

Fan ordering information

**Airflow direction A**

Design	Q (without guard grille)	Q (guard grille suction side)
		
<b>Type</b>	<b>FN080-VDQ.7Q.A5P7</b>	<b>FN080-VDQ.7Q.A5P7</b>
<b>Article no.</b>	<b>177655</b>	<b>177656</b>
Wall ring plate	Wall ring plate made of coated sheet steel	Wall ring plate made of coated sheet steel
Weight kg	61.80	65.60

Control technology

Frequency inverters Fcontrol 3~	Motor protection units 3~	Electronic voltage controllers 3~
		

# FE2owlet

for three phase alternating current, 4-4 pole

FN091-VD



## Description

Motor technology: AC  
 Rated voltage  $U_N$ : 3- 400 V ( $\Delta/Y$ )  $\pm 10$  %\*  
 Rated frequency  $f_N$ : 5 Hz\*  
 Input power  $P_i$ : 5.20/3.10 kW\*  
 Rated current  $I_N$ : 8.80/5.00 A\*  
 Rated speed  $n_N$ : 1210/900 min<sup>-1</sup>\*  
 Starting current  $I_A$ : 32.00 / 10.00 A  
 Current increase  $\Delta I$ : 0 %  
 Thermal class: **THCL155\***  
 Min. permitted ambient temperature  $t_{R(min)}$ : -40 °C\*\*\*  
 Max. permitted ambient temperature  $t_{R(max)}$ : 40 °C  
 Electrical connection: Terminal box  
 Number of blades: 5  
 Degree of protection : IP54  
 Motor protection: thermal contact  
 Blades: Aluminium, 2 coat paint, jet black  
 Rotor: Aluminium, 2 coat paint, jet black  
 Conformity: ErP 2015, CE

## ErP-data

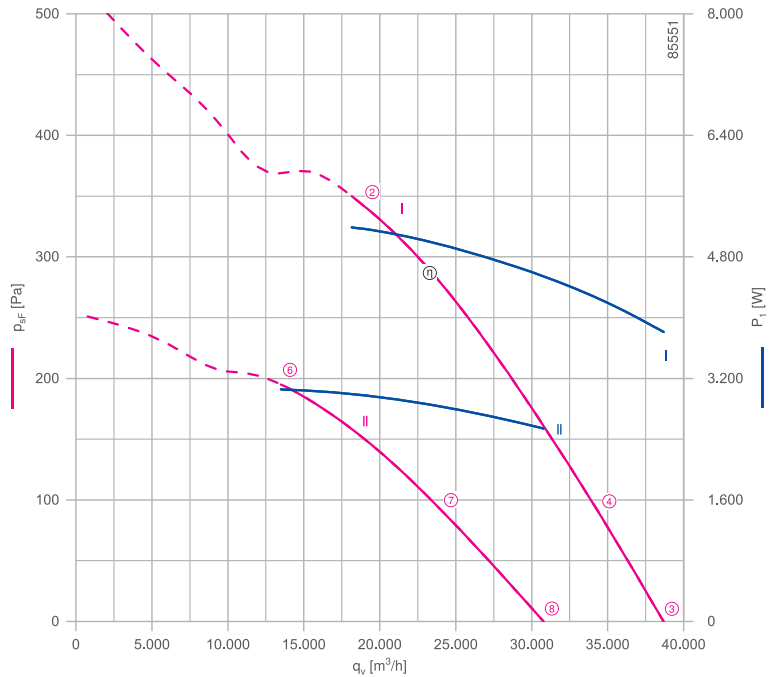
Efficiency  $\eta_{statA}$ : 38.5 %  
 Efficiency grade:  $N_{actual} = 40.5 / N_{target} = 40$ \*\*

\* Rated data

\*\*ErP 2015

\*\*\* Continuous operation with occasional starts (S1) according to DIN EN 60034-1:2011-02. Occasional starting between -40 °C and -25 °C is permissible. Continuous operation below -25 °C only with special bearings for refrigeration applications on request.

## Characteristic curve



Measured in full bell mouth without guard grille in installation type A according to ISO 5801.

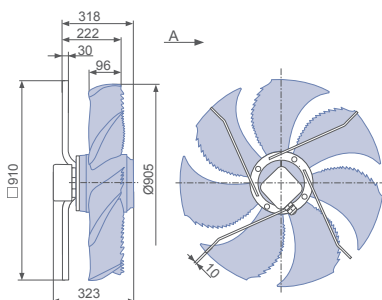
Connection diagram

1360-108XB

## Dimensions mm

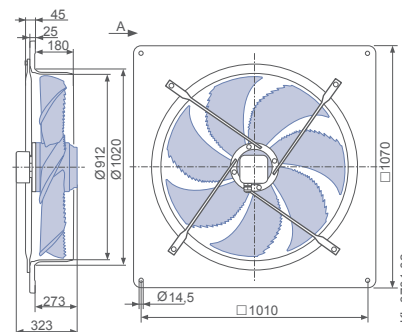
### Airflow direction A

Design T - for installation in chimney exhausts, without guard grille



L-KL-3444-05

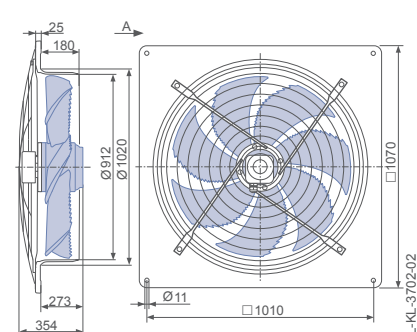
Design Q - square full bell mouth, without guard grille



L-KL-3701-02

Wall ring plate made of composite material

Design Q - square full bell mouth, guard grille suction side



L-KL-3702-02

Wall ring plate made of composite material





Performance data

Type	Characteristic curve	Connection	Voltage	Operating point	Current	Input power	Speed	Acoustic pressure level 7m	Specific power
FN091-VD_7Q_5P1	I	Δ	400	②	8.80	5200	1210		291.1
				③	6.80	3800	1300	63	98.6
				④	7.40	4400	1270	62	126.8
				⑥	5.00	3100	900		229.9
	II	Y	⑦	4.20	2500	1040	57	82.5	
			⑧	4.60	2800	960	53	122.2	

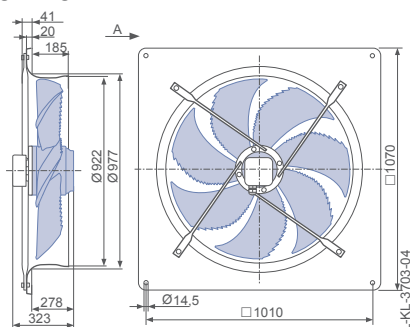
Fan ordering information

Airflow direction A					
Design	T (without guard grille)	Q (without guard grille)	Q (guard grille suction side)	Q (without guard grille)	Q (guard grille suction side)
<b>Type</b>	<b>FN091-VDT.7Q.A5P1</b>	<b>FN091-VDQ.7Q.A5P1</b>	<b>FN091-VDQ.7Q.A5P1</b>	<b>FN091-VDQ.7Q.A5P1</b>	<b>FN091-VDQ.7Q.A5P1</b>
<b>Article no.</b>	<b>177748</b>	<b>177749</b>	<b>177750</b>	<b>177751</b>	<b>177752</b>
Wall ring plate		Wall ring plate made of composite material	Wall ring plate made of composite material	Wall ring plate made of coated sheet steel	Wall ring ring plate made of coated sheet steel
Weight kg	46.80	57.60	62.20	65.00	69.60
Supply temperature	-10°C - max 40°C in design with wall ring plate made of composite material				

Control technology

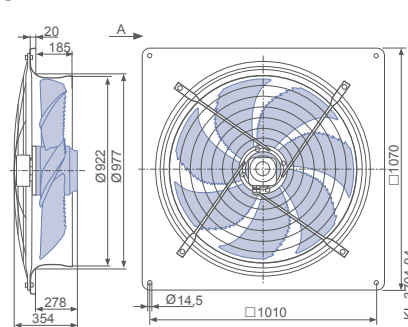


Design Q - square full bell mouth, without guard grille



Wall ring plate made of coated sheet steel

Design Q - square full bell mouth, guard grille suction side



Wall ring plate made of coated sheet steel

# FE2owlet with ZPlus

for three phase alternating current, 4-4 pole

ZN063-VD



## Description

Motor technology: AC  
 Rated voltage  $U_N$ : 3- 400 V ( $\Delta/Y$ )  $\pm 10$  %\*  
 Rated frequency  $f_N$ : 50 Hz\* (60Hz data available)  
 Input power  $P_i$ : 1.75/1.35 kW\*  
 Rated current  $I_N$ : 3.70/2.20 A\*  
 Rated speed  $n_N$ : 1400/1210 min<sup>-1</sup>\*  
 Starting current  $I_A$ : 20.00 / 6.50 A  
 Current increase  $\Delta I$ : 5 %  
 Thermal class: THCL155\*  
 Min. permitted ambient temperature  $t_{R(min)}$ : -40 °C\*\*\*  
 Max. permitted ambient temperature  $t_{R(max)}$ : 70 °C  
 Electrical connection: Terminal box  
 Number of blades: 7  
 Degree of protection : IP54  
 Motor protection: thermal contact  
 Blades: Aluminium, 2 coat paint, jet black  
 Rotor: Aluminium, 2 coat paint, jet black  
 Conformity: ErP 2015, CE

## ErP-data

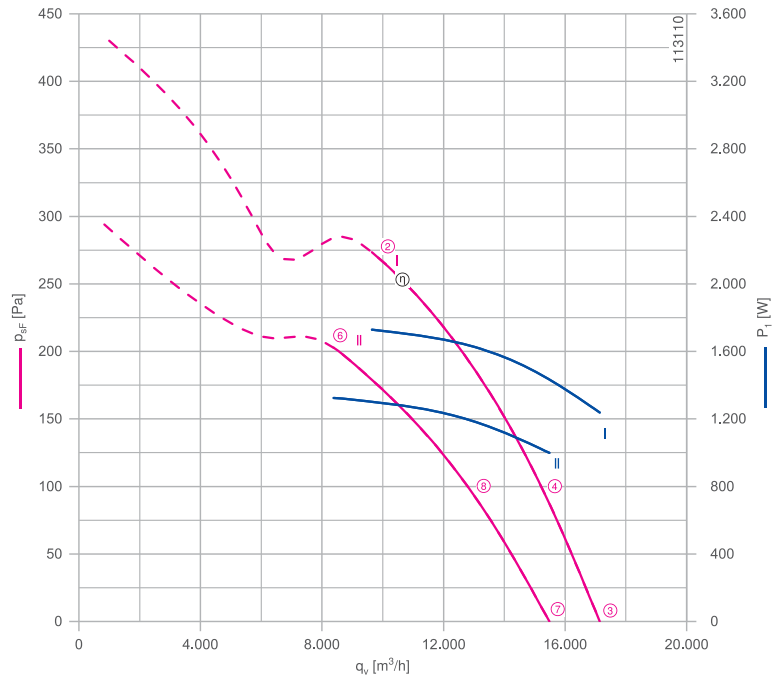
Efficiency  $\eta_{statA}$ : 44.8 %  
 Efficiency grade:  $N_{actual} = 49.7 / N_{target} = 40$ \*\*

\* Rated data

\*\*ErP 2015

\*\*\* Continuous operation with occasional starts (S1) according to DIN EN 60034-1:2011-02. Occasional starting between -40 °C and -25 °C is permissible. Continuous operation below -25 °C only with special bearings for refrigeration applications on request.

## Characteristic curve



Measured in ZPlus without guard grille in installation type A according to ISO 5801.

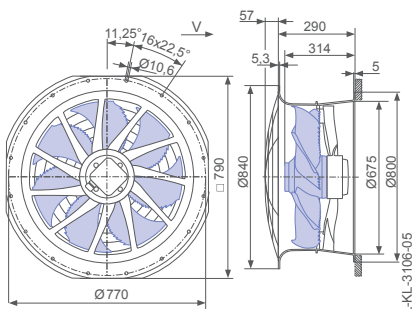
Connection diagram

1360-108XA

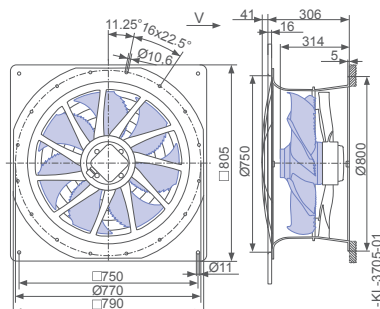
## Dimensions mm

Airflow direction →

Design L - ZPlus Ontop, guard grille suction side

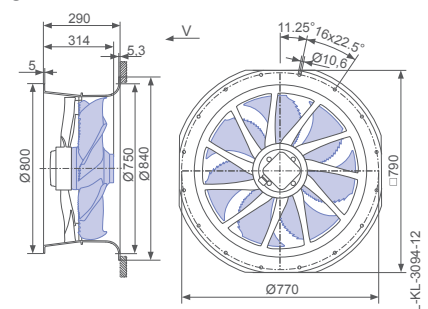


Design Q - ZPlus with adapter plate, guard grille suction side



← Airflow direction

Design L - ZPlus Ontop without guard grille



Performance data

Type	Characteristic curve	Connection	Voltage	Operating point	Current	Input power	Speed	Acoustic pressure level 7m	Specific power
ZN063-VD_6N.V7P6	I	Δ	400	②	3.70	1750	1400		180.1
				③	3.20	1250	1440	61	72.2
				④	3.40	1450	1420	60	95.4
				⑥	2.20	1300	1210		159.8
	II	Y		⑦	1.75	1000	1300	59	64.5
				⑧	2.00	1200	1250	57	93.6

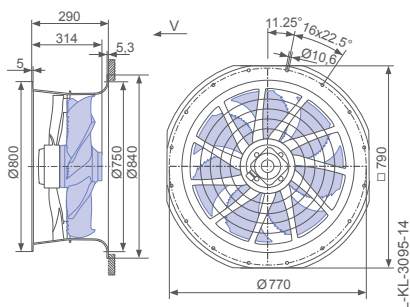
Fan ordering information

Airflow direction		Airflow direction				
Design	L (guard grille suction side) Ontop	Q (guard grille suction side)	L (without guard grille) Ontop	L (guard grille pressure side) Ontop	Q (without guard grille) Ontop	Q (guard grille pressure side)
<b>Type</b>	ZN063-VDL.6N.V7P6	ZN063-VDQ.6N.V7P6	ZN063-VDL.6N.V7P6	ZN063-VDL.6N.V7P6	ZN063-VDQ.6N.V7P6	ZN063-VDQ.6N.V7P6
<b>Article no.</b>	177608	177611	177607	177609	177610	177612
<b>Weight kg</b>	32.50	34.50	30.30	31.30	32.30	33.40
ZApplus attachable on both sides.						

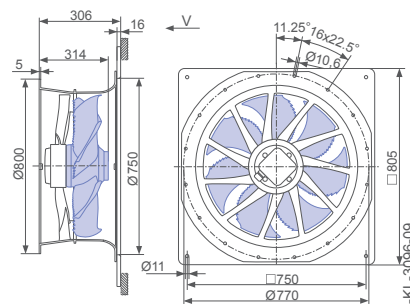
Control technology



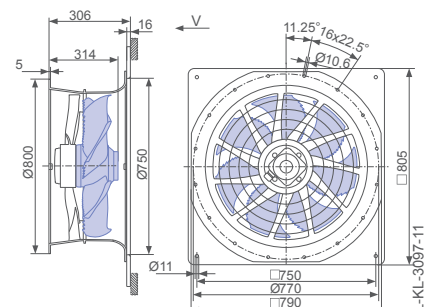
Design L - ZApplus Ontop, guard grille pressure side



Design Q - ZApplus with adapter plate, without guard grille



Design Q - ZApplus with adapter plate, guard grille pressure side



# FE2owlet with ZPlus

for three phase alternating current, 4-4 pole

ZNO71-VD



## Description

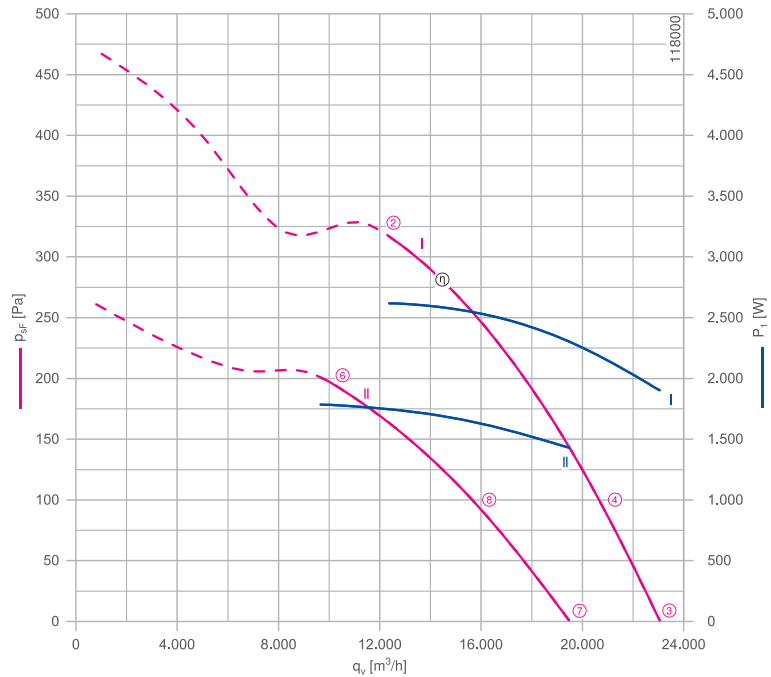
Motor technology: AC  
 Rated voltage  $U_N$ : 3- 400 V ( $\Delta/Y$ )  $\pm 10\%$ \*  
 Rated frequency  $f_N$ : 50 Hz\*  
 Input power  $P_i$ : 2.60/1.80 kW\*  
 Rated current  $I_N$ : 4.80/3.00 A\*  
 Rated speed  $n_N$ : 1340/1060 min<sup>-1</sup>\*  
 Starting current  $I_A$ : 20.00 / 6.50 A  
 Current increase  $\Delta I$ : 5 %  
 Thermal class: **THCL155\***  
 Min. permitted ambient temperature  $t_{R(min)}$ : -40 °C\*\*\*  
 Max. permitted ambient temperature  $t_{R(max)}$ : 60 °C  
 Electrical connection: Terminal box  
 Number of blades: 7  
 Degree of protection : IP54  
 Motor protection: thermal contact  
 Blades: Aluminium, 2 coat paint, jet black  
 Rotor: Aluminium, 2 coat paint, jet black  
 Conformity: ErP 2015, CE

## ErP-data

Efficiency  $\eta_{statA}$ : 44.7 %  
 Efficiency grade:  $N_{actual} = 48.4 / N_{target} = 40$ \*\*  
 \* Rated data  
 \*\*ErP 2015

\*\*\* Continuous operation with occasional starts (S1) according to DIN EN 60034-1:2011-02. Occasional starting between -40 °C and -25 °C is permissible. Continuous operation below -25 °C only with special bearings for refrigeration applications on request.

## Characteristic curve



Measured in ZPlus without guard grille in installation type A according to ISO 5801.

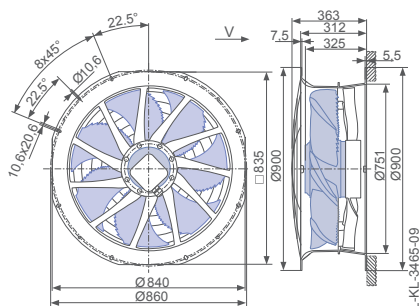
## Connection diagram

1360-108XA

## Dimensions mm

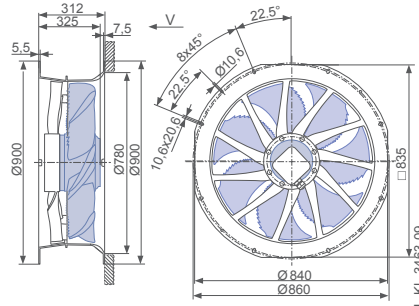
Airflow direction

Design L - ZPlus Ontop, guard grille suction side

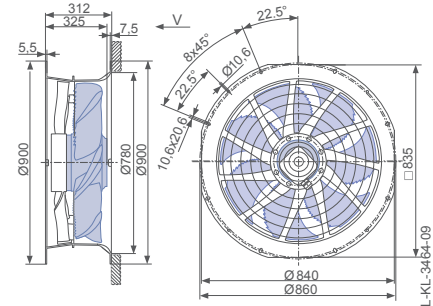


Airflow direction

Design L - ZPlus Ontop without guard grille



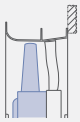


Design L - ZPlus Ontop, guard grille pressure side



Performance data

Type	Characteristic curve	Connection	Voltage	Operating point	Current	Input power	Speed	Acoustic pressure level 7m	Specific power
			U V		I A	P <sub>1</sub> W	n min <sup>-1</sup>	L <sub>pA</sub> dB(A)	P <sub>spez</sub> Wh/1000m <sup>3</sup>
ZN071-VD_6N.V7P2	I	Δ	400	②	4.80	2600	1340		214.6
				③	3.90	1900	1390	59	82.5
				④	4.20	2200	1370	58	105.2
				⑥	2.90	1800	1060		184.2
	II	Y		⑦	2.40	1450	1180	55	73.4
				⑧	2.70	1650	1110	52	104.4

Fan ordering information

	Airflow direction	Airflow direction	Airflow direction
Design	L (guard grille suction side) Ontop	L (without guard grille) Ontop	L (guard grille pressure side) Ontop
			
Type	<b>ZN071-VDL.6N.V7P2</b>	<b>ZN071-VDL.6N.V7P2</b>	<b>ZN071-VDL.6N.V7P2</b>
Article no.	<b>177625</b>	<b>177624</b>	<b>177626</b>
Weight kg	34.40	31.80	33.00
ZApplus attachable on both sides.			

Control technology

Frequency inverters Fcontrol 3~	Motor protection units 3~	Electronic voltage controllers 3~
		

# FE2owlet with ZPlus

for three phase alternating current, 6-6 pole

ZN080-SD



## Description

Motor technology: AC  
 Rated voltage  $U_N$ : 3- 400 V ( $\Delta/Y$ )  $\pm 10$  %\*  
 Rated frequency  $f_N$ : 50 Hz\* (60Hz data available)  
 Input power  $P_i$ : 1.60/0.80 kW\*  
 Rated current  $I_N$ : 3.50/1.55 A\*  
 Rated speed  $n_N$ : 800/ 560  $\text{min}^{-1}$ \*  
 Starting current  $I_A$ : 9.50 / 3.00 A  
 Current increase  $\Delta I$ : 0 %  
 Thermal class: **THCL155\***  
 Min. permitted ambient temperature  $t_{R(\text{min})}$ : -40 °C\*\*\*  
 Max. permitted ambient temperature  $t_{R(\text{max})}$ : 70 °C  
 Electrical connection: Terminal box  
 Number of blades: 7  
 Degree of protection : IP54  
 Motor protection: thermal contact  
 Blades: Aluminium, 2 coat paint, jet black  
 Rotor: Aluminium, 2 coat paint, jet black  
 Conformity: ErP 2015, CE

## ErP-data

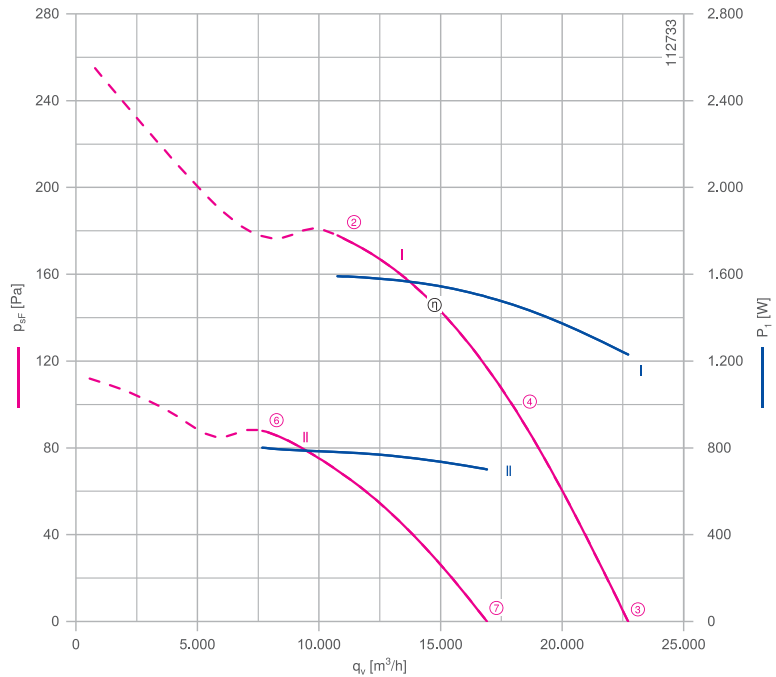
Efficiency  $\eta_{\text{statA}}$ : 39.6 %  
 Efficiency grade:  $N_{\text{actual}} = 44.7 / N_{\text{target}} = 40$ \*\*

\* Rated data

\*\*ErP 2015

\*\*\* Continuous operation with occasional starts (S1) according to DIN EN 60034-1:2011-02. Occasional starting between -40 °C and -25 °C is permissible. Continuous operation below -25 °C only with special bearings for refrigeration applications on request.

## Characteristic curve



Measured in ZPlus without guard grille in installation type A according to ISO 5801.

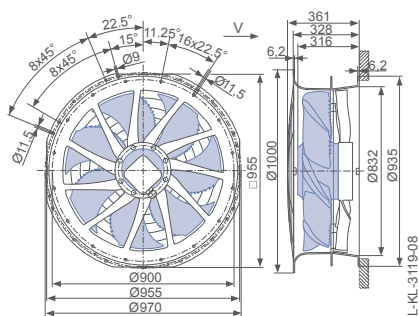
Connection diagram

1360-108XA

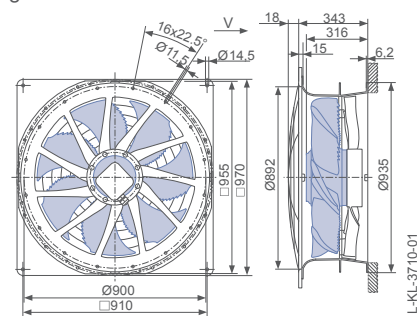
## Dimensions mm

Airflow direction

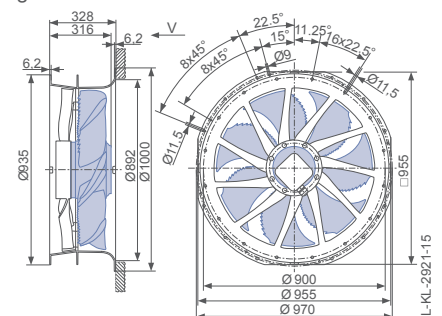
Design L - ZPlus Ontop, guard grille suction side



Design Q - ZPlus with adapter plate, guard grille suction side



Design L - ZPlus Ontop without guard grille



Performance data

Type	Characteristic curve	Connection	Voltage	Operating point	Current	Input power	Speed	Acoustic pressure level 7m	Specific power
ZN080-SD_6N.V7P5	I	Δ	400	②	3.50	1600	800		
				③	3.00	1250	860	53	54.1
				④	3.30	1450	820	50	80.8
	II	Y		⑥	1.55	800	560		105.5
				⑦	1.40	700	650	46	41.5

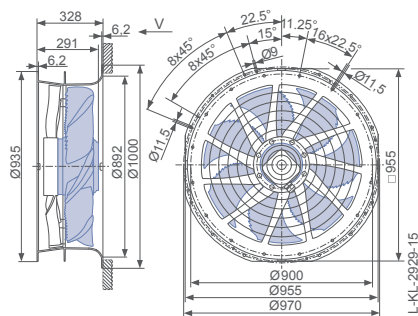
Fan ordering information

Airflow direction						
Design	L (guard grille suction side) Ontop	Q (guard grille suction side)	L (without guard grille) Ontop	L (guard grille pressure side) Ontop	Q (without guard grille)	Q (guard grille pressure side)
<b>Type</b>	<b>ZN080-SDL.6N.V7P5</b>	<b>ZN080-SDQ.6N.V7P5</b>	<b>ZN080-SDL.6N.V7P5</b>	<b>ZN080-SDL.6N.V7P5</b>	<b>ZN080-SDQ.6N.V7P5</b>	<b>ZN080-SDQ.6N.V7P5</b>
<b>Article no.</b>	<b>177684</b>	<b>177687</b>	<b>177683</b>	<b>177685</b>	<b>177686</b>	<b>177688</b>
<b>Weight kg</b>	41.70	45.30	38.80	40.30	41.90	43.40
ZApplus attachable on both sides.						

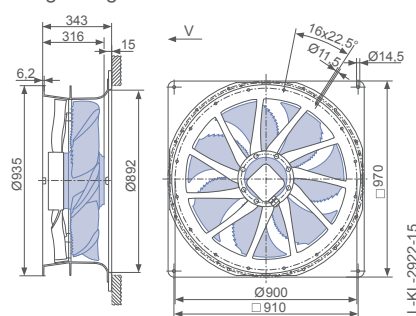
Control technology



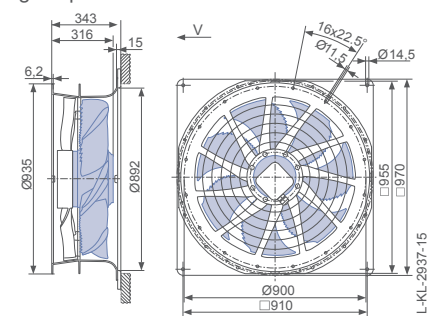
Design L - ZApplus Ontop, guard grille pressure side



Design Q - ZApplus with adapter plate, without guard grille



Design Q - ZApplus with adapter plate, guard grille pressure side



# FE2owlet with ZPlus

for three phase alternating current, 4-4 pole

ZN09 1-VD



## Description

Motor technology: AC  
 Rated voltage  $U_N$ : 3- 400 V ( $\Delta/Y$ )  $\pm 10$  %\*  
 Rated frequency  $f_N$ : 5 Hz\*  
 Input power  $P_i$ : 5.40/3.20 kW\*  
 Rated current  $I_N$ : 9.00/5.20 A\*  
 Rated speed  $n_N$ : 1230/ 900  $\text{min}^{-1}$ \*  
 Starting current  $I_s$ : 32.00 / 10.00 A  
 Current increase  $\Delta I$ : 0 %  
 Thermal class: **THCL155\***  
 Min. permitted ambient temperature  $t_{R(\text{min})}$ : -40 °C\*\*\*  
 Max. permitted ambient temperature  $t_{R(\text{max})}$ : 40 °C  
 Electrical connection: Terminal box  
 Number of blades: 5  
 Degree of protection : IP54  
 Motor protection: thermal contact  
 Blades: Aluminium, 2 coat paint, jet black  
 Rotor: Aluminium, 2 coat paint, jet black  
 Conformity: ErP 2015, CE

## ErP-data

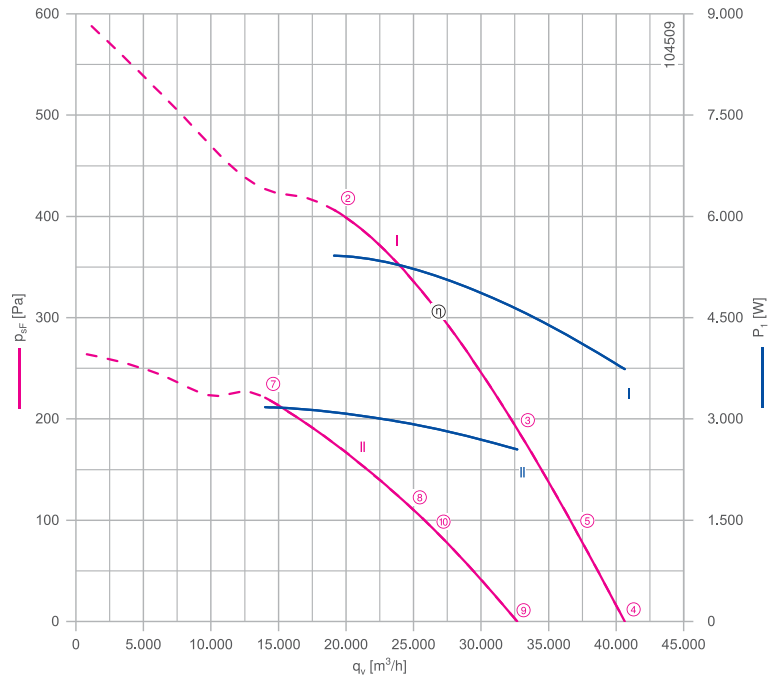
Efficiency  $\eta_{\text{statA}}$ : 45.7 %  
 Efficiency grade:  $N_{\text{actual}} = 47.6 / N_{\text{target}} = 40$ \*\*

\* Rated data

\*\*ErP 2015

\*\*\* Continuous operation with occasional starts (S1) according to DIN EN 60034-1:2011-02. Occasional starting between -40 °C and -25 °C is permissible. Continuous operation below -25 °C only with special bearings for refrigeration applications on request.

## Characteristic curve



Measured in ZPlus without guard grille in installation type A according to ISO 5801.

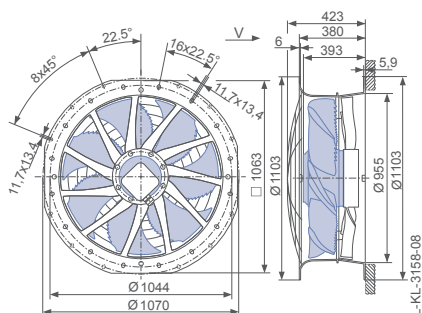
Connection diagram

1360-108XA

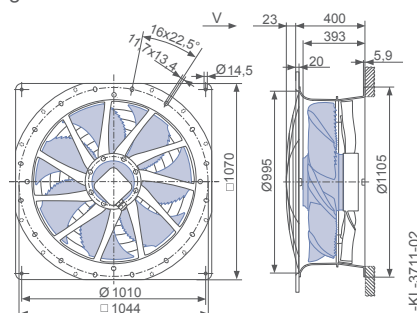
## Dimensions mm

Airflow direction

Design L - ZPlus Ontop, guard grille suction side

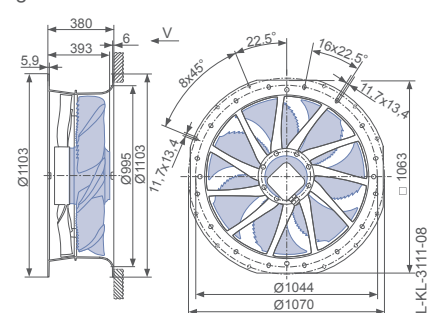


Design Q - ZPlus with adapter plate, guard grille suction side



Airflow direction

Design L - ZPlus Ontop without guard grille





Performance data

Type	Character- istic curve	Connection	Voltage	Operating point	Current	Input power	Speed	Acoustic pressure level 7m	Specific power	Maximum ambient tempera- ture
			U V		I A	P <sub>1</sub> W	n min <sup>-1</sup>	L <sub>pA</sub> dB(A)	P <sub>spez</sub> Wh/1000m <sup>3</sup>	t <sub>R</sub> °C
ZN091-VD_7Q.V5P1	I	Δ	400	②	9.00	5400	1230		286.8	40
				③	7.80	4600	1280	145.7	60	
				④	6.40	3700	1330	92.0	60	
	II	Y		⑤	7.20	4200	1300	65	114.9	60
				⑥	5.20	3200	900	228.6	40	
				⑦	4.80	2900	980	120.3	60	
				⑧	4.00	2500	1070	78.0	60	
				⑨	4.60	2900	990	56	111.7	60

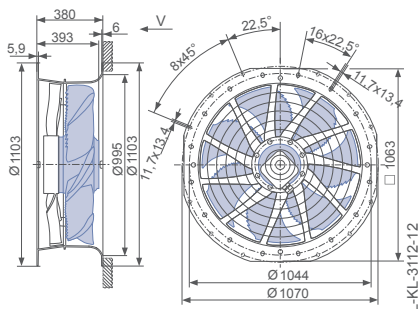
Fan ordering information

Design	L (guard grille suction side) Ontop	Q (guard grille suction side)	L (without guard grille) Ontop	L (guard grille pressure side) Ontop	Q (without guard grille)	Q (guard grille pressure side)
<b>Type</b>	<b>ZN091-VDL.7Q.V5P1</b>	<b>ZN091-VDQ.7Q.V5P1</b>	<b>ZN091-VDL.7Q.V5P1</b>	<b>ZN091-VDL.7Q.V5P1</b>	<b>ZN091-VDQ.7Q.V5P1</b>	<b>ZN091-VDQ.7Q.V5P1</b>
<b>Article no.</b>	<b>178388</b>	<b>178391</b>	<b>178387</b>	<b>178389</b>	<b>178390</b>	<b>178392</b>
<b>Weight kg</b>	60.40	64.30	56.90	58.80	60.70	62.60
ZPlus attachable on both sides.						

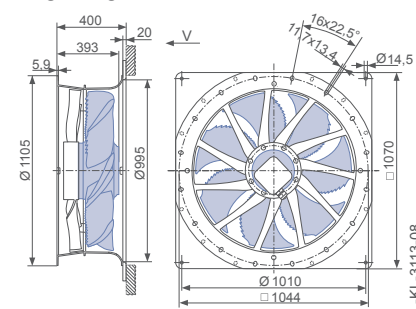
Control technology



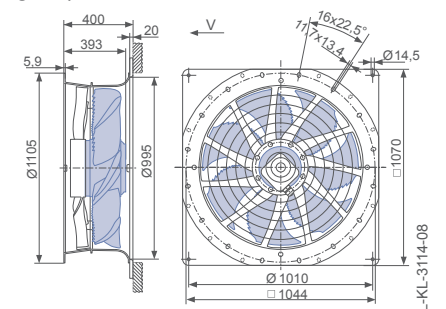
Design L - ZPlus Ontop, guard grille pressure side



Design Q - ZPlus with adapter plate, without guard grille



Design Q - ZPlus with adapter plate, guard grille pressure side



# FE2owlet with ZPlus

for three phase alternating current, 6-6 pole

ZN091-SD



## Description

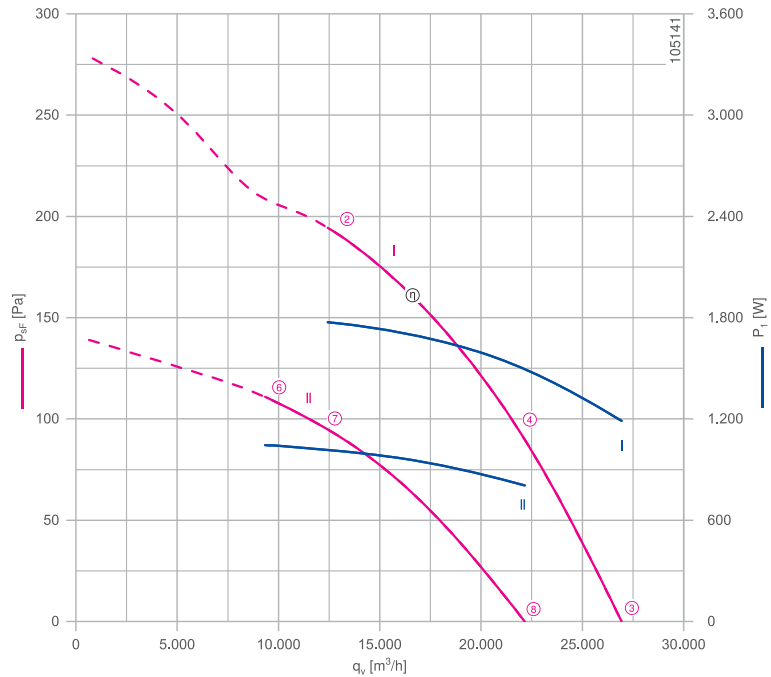
Motor technology: AC  
 Rated voltage  $U_N$ : 3- 400 V ( $\Delta/Y$ )  $\pm 10$  %\*  
 Rated frequency  $f_N$ : 50 Hz\* (60Hz data available)  
 Input power  $P_i$ : 1.8/1.05 kW\*  
 Rated current  $I_N$ : 3.80/1.90 A\*  
 Rated speed  $n_N$ : 850/ 640  $\text{min}^{-1}$ \*  
 Starting current  $I_A$ : 11.00 / 3.40 A  
 Current increase  $\Delta I$ : 0 %  
 Thermal class: **THCL155\***  
 Min. permitted ambient temperature  $t_{R(\text{min})}$ : -40 °C\*\*\*  
 Max. permitted ambient temperature  $t_{R(\text{max})}$ : 65 °C  
 Electrical connection: Terminal box  
 Number of blades: 7  
 Degree of protection : IP54  
 Motor protection: thermal contact  
 Blades: Aluminium, 2 coat paint, jet black  
 Rotor: Aluminium, 2 coat paint, jet black  
 Conformity: ErP 2015, CE

## ErP-data

Efficiency  $\eta_{\text{statA}}$ : 44.7 %  
 Efficiency grade:  $N_{\text{actual}} = 49.6 / N_{\text{target}} = 40$ \*\*  
 \* Rated data  
 \*\*ErP 2015

\*\*\* Continuous operation with occasional starts (S1) according to DIN EN 60034-1:2011-02. Occasional starting between -40 °C and -25 °C is permissible. Continuous operation below -25 °C only with special bearings for refrigeration applications on request.

## Characteristic curve



Measured in ZPlus without guard grille in installation type A according to ISO 5801.

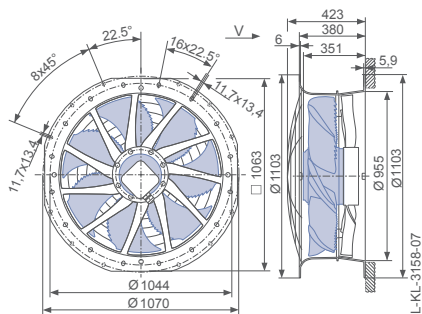
Connection diagram

1360-108XA

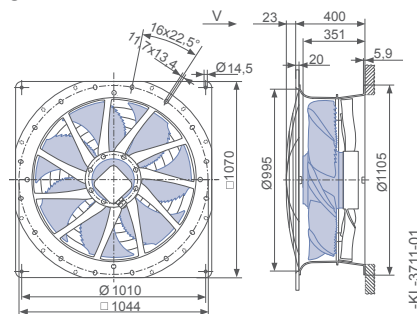
## Dimensions mm

Airflow direction

Design L - ZPlus Ontop, guard grille suction side

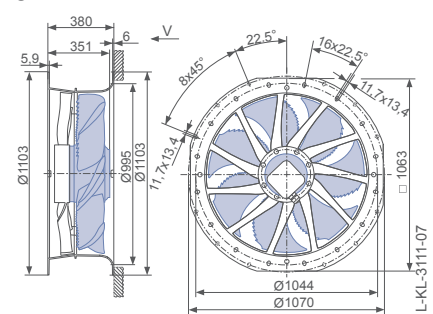


Design Q - ZPlus with adapter plate, guard grille suction side



Airflow direction

Design L - ZPlus Ontop without guard grille



Performance data

Type	Characteristic curve	Connection	Voltage	Operating point	Current	Input power	Speed	Acoustic pressure level 7m $L_{pA}$ dB(A)	Specific power $P_{spez}$ Wh/1000m <sup>3</sup>
			U V						
ZN091-SD_6N.V7P2	I	Δ	400	②	3.80	1750	850		144.0
				③	3.10	1200	910	57	44.1
				④	3.50	1550	870	54	70.9
				⑥	1.85	1050	640		112.2
	II	Y	400	⑦	1.50	800	750	51	36.4
				⑧	1.85	1050	650	51	88.6

Fan ordering information

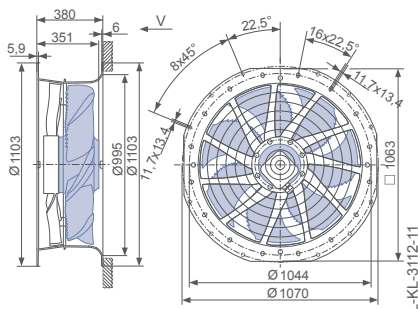
Airflow direction		Airflow direction				
Design	L (guard grille suction side) Ontop	Q (guard grille suction side)	L (without guard grille) Ontop	L (guard grille pressure side) Ontop	Q (without guard grille)	Q (guard grille pressure side)
Type	ZN091-SDL.6N.V7P2	ZN091-SDQ.6N.V7P2	ZN091-SDL.6N.V7P2	ZN091-SDL.6N.V7P2	ZN091-SDQ.6N.V7P2	ZN091-SDQ.6N.V7P2
Article no.	178380	178383	178379	178381	178382	178384
Weight kg	44.00	47.90	40.40	42.30	44.30	46.20

ZAplus attachable on both sides.

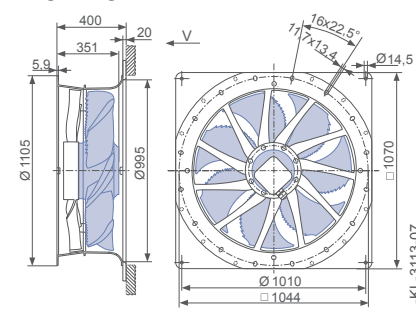
Control technology



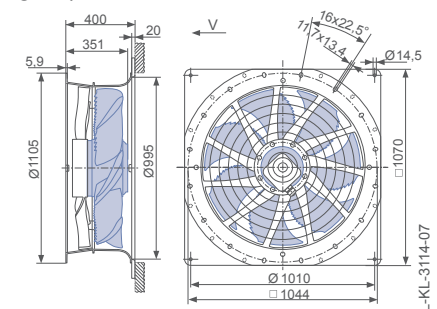
Design L - ZAplus Ontop, guard grille pressure side



Design Q - ZAplus with adapter plate, without guard grille



Design Q - ZAplus with adapter plate, guard grille pressure side



# The Royal League

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