



Movement by Perfection

# MAXvent owlet




Medium pressure axial fans  
2014 edition

The Royal League in ventilation, control and drive technology

**ZIEHL-ABEGG** 



# Contents

The Company ZIEHL-ABEGG		Page 4	
Axial fan MAXvent owlet	Medium pressure axial fans with adjustable blades MAXvent owlet		Page 18
System components			Page 48
Control technology			Page 52
General notes		Page 60	

Information
MAXvent owlet
System components
Control technology
General notes



# ZIEHL-ABEGG

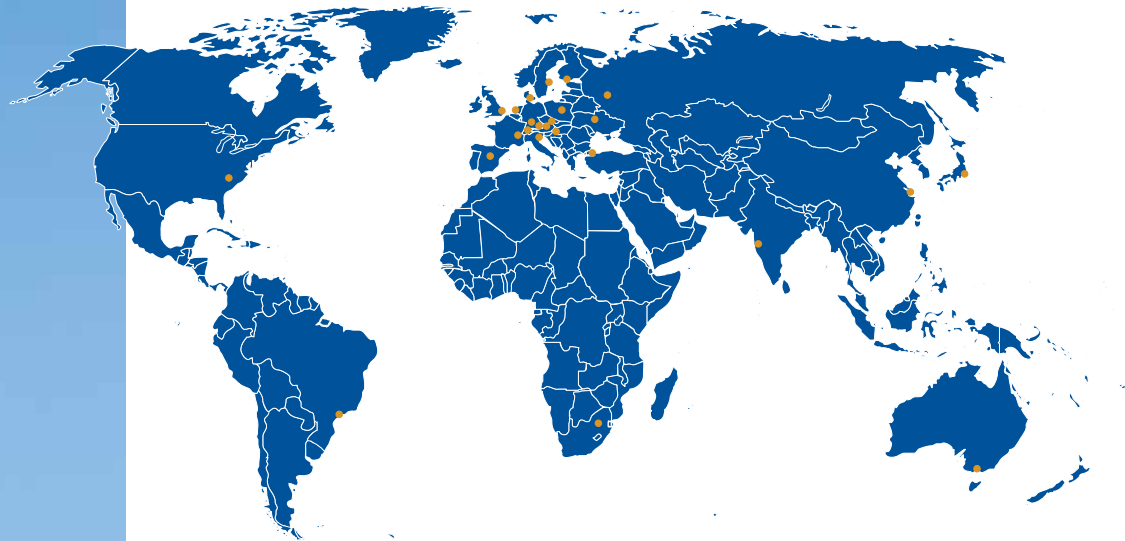
Die Königsklasse

der Lufttechnik,  
Regeltechnik und Antriebstechnik

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

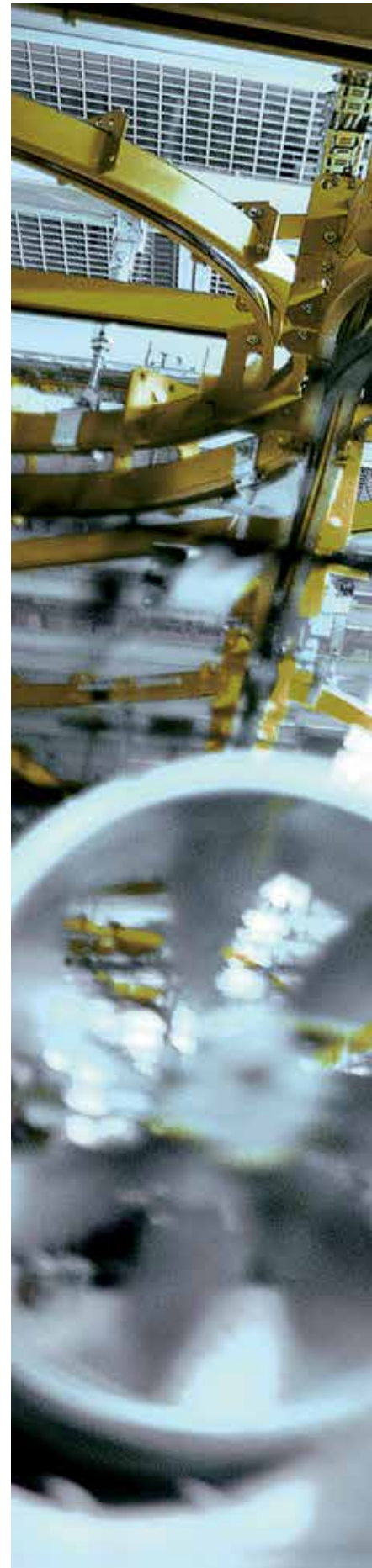
What is important to us is to correctly match our systems to your specific needs. Whether refrigeration, air conditioning, for use in your manufacturing processes or anywhere else - we reliably move air wherever it is required and at the right time. At the main Künzelsau location more than 100 engineers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





Information

MAXvent owlet

System components

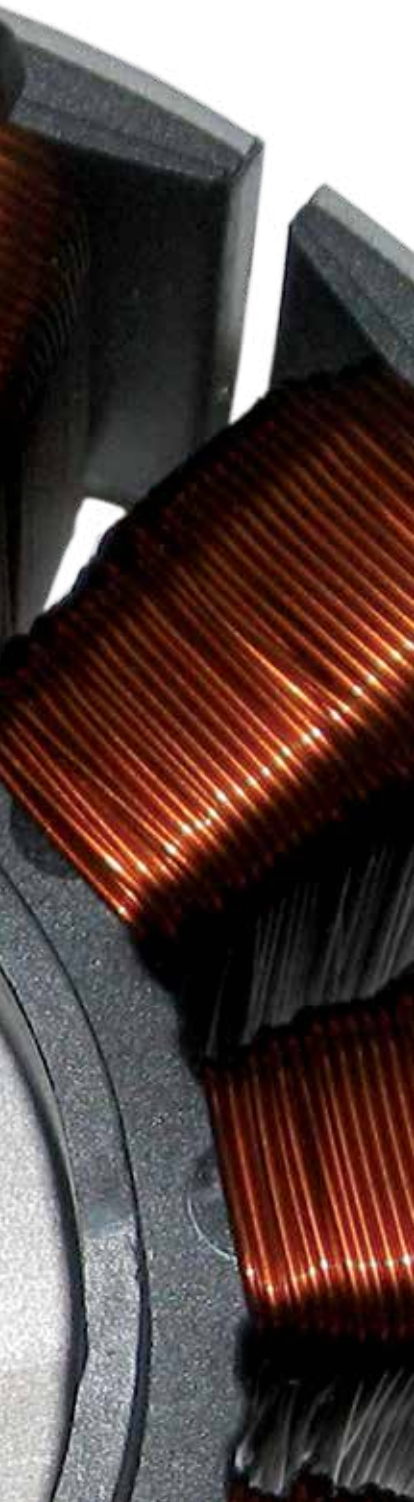
Control technology

General notes

# 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 **ZAmid**<sup>®</sup> *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



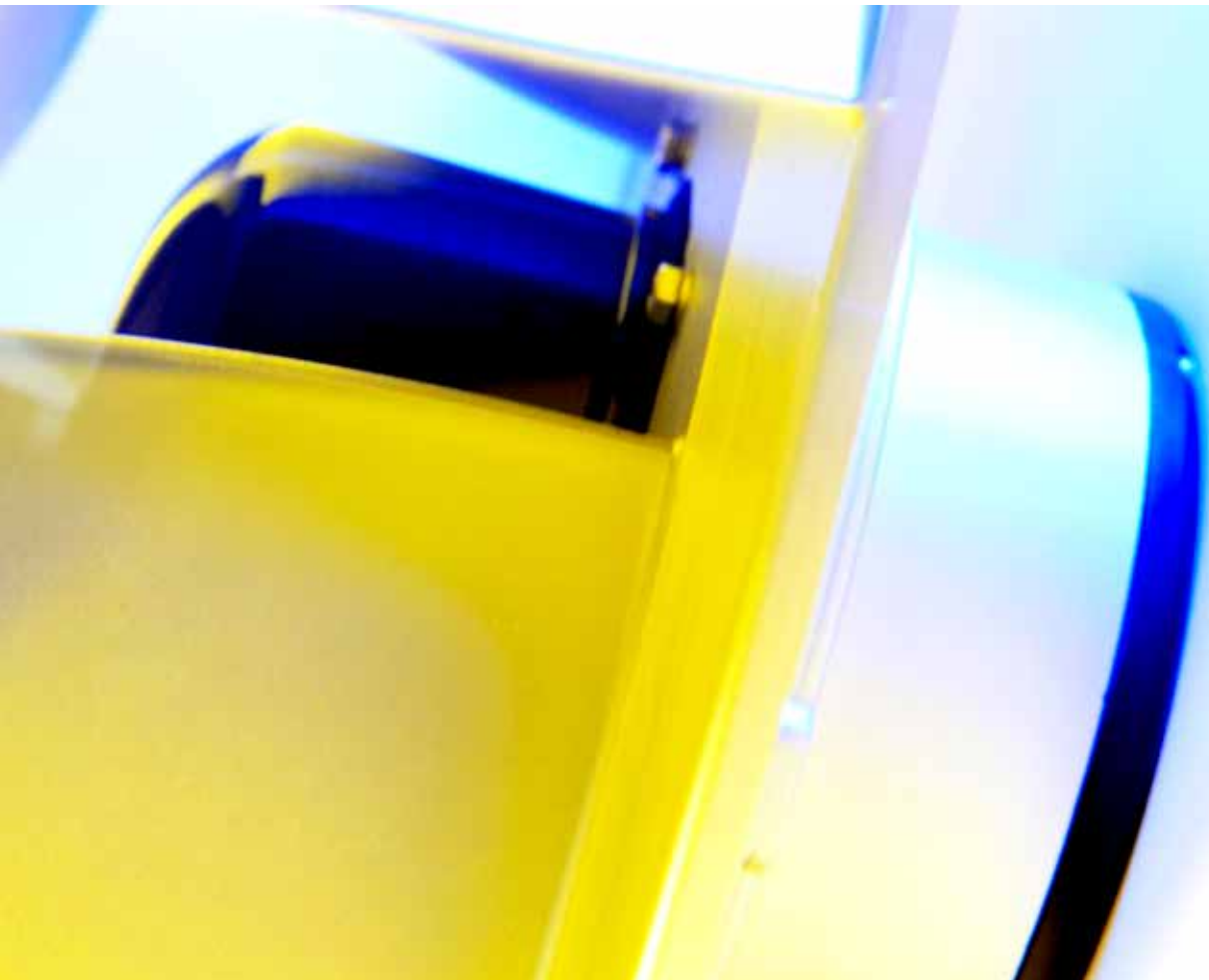




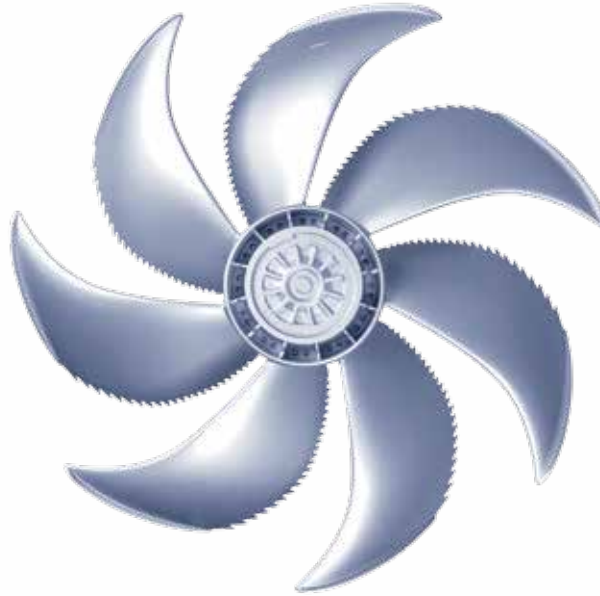
Maximum efficiency and minimum consumption  
ECblue with the latest **ZAmid**® Technology  
Radial fans sector



Unique bionic profile FE2owlet,  
combined with ECblue technology



## The Royal League of AC fans

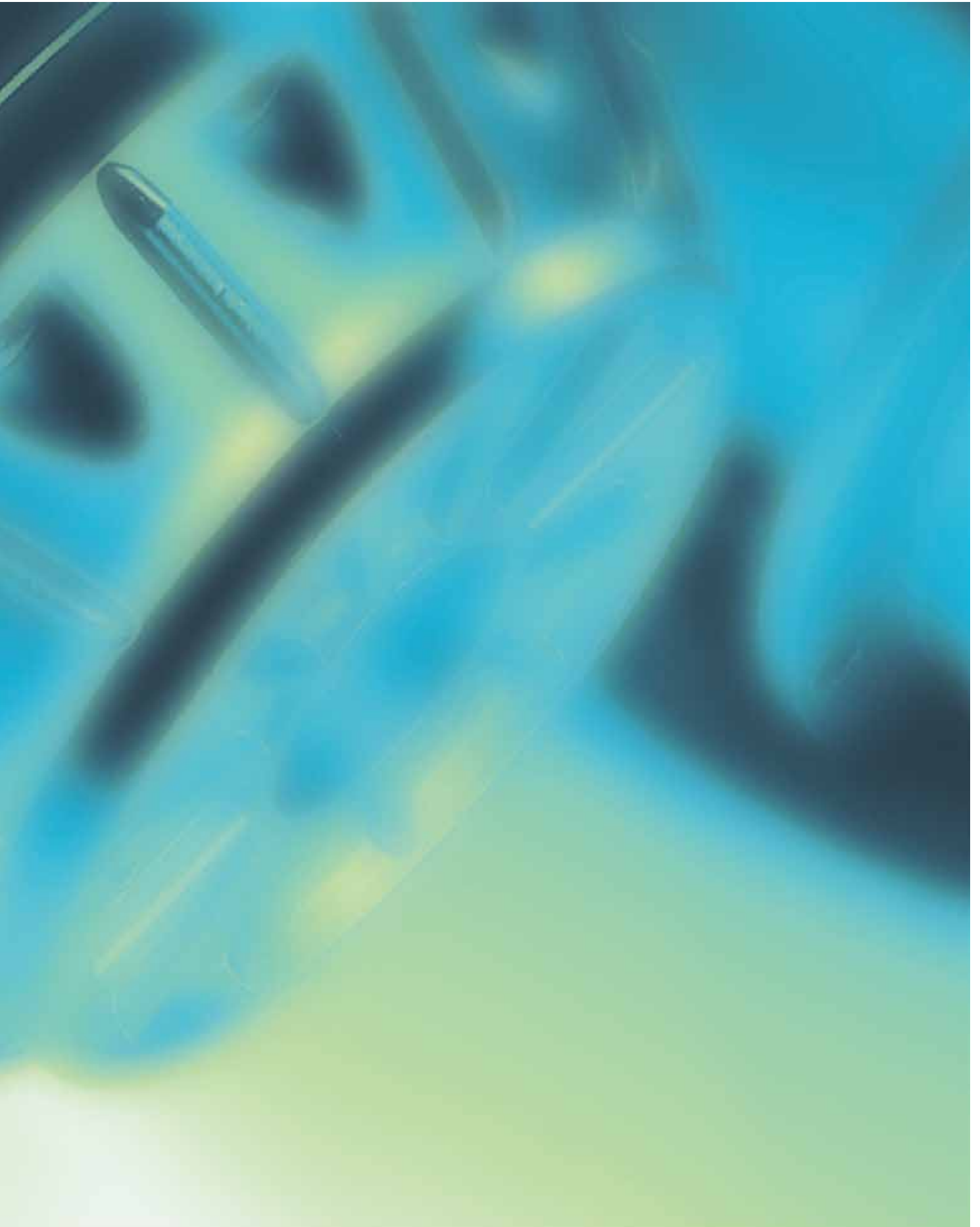


### So powerful, so unsusceptible, so AC technology

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





Information

MAXvent owlet

System components

Control technology

General notes

# Applications

## Refrigeration

Coolers, Condensers, Chillers  
Blast and spiral freezers  
Radiators and oil coolers



## Industry

Engine and turbine ventilation  
Containers and chambers ventilation  
Dry coolers  
Transformers and machine cooling  
Hydro power  
Wood dryers, paper, textiles,  
Chemical and metallurgic production  
ATEX and offshore



## Food Processing, Agriculture

Crop drying  
Preservation of vegetables and fruits  
Pasta and tobacco drying  
Meat chilling



# Expertise in ventilation

## ErP Directive

By adopting the Kyoto Protocol, the European Union committed itself to reducing CO<sub>2</sub> 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.



The European Ventilation Industry Association (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.

## Pure innovation

# ZAmid<sup>®</sup> Technologie

**ZAmid<sup>®</sup> 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.

# Technical description

## Description

13 fan diameters ranging from 315 to 1400 mm  
 Motors are available in 2, 4, 6, or 8 pole configurations  
 Factory adjustable blade pitch angle to meet the exact duty point requirements  
 Short and long casing designed to Eurovent  
 Square wall ring plate housing starting with diameter 630 mm pre-galvanized steel finishing  
 Asynchronous internal rotor motors (B3 lug-mounted, IP55, class F, energy efficiency class IE2 or IE3, PTC thermistors)  
 Direct coupling of the impeller on the shaft  
 Profiled blades made from high performance corrosion-free composite material ZAmid

## Applications

Condensers, cooling towers, evaporators, dry coolers, blast freezers, agriculture, food processing, drying technologies, cooling of motors and turbines, cooling of transformers and machinery, water treatment, chemical and metallurgic production ATEX.

## Advantages

The MAXvent owlet fans features ultra-low noise emissions, high efficiency and more pressure for the same diameter. The whole family is already compliant with the ErP 2015 Directives.

## Special configurations

Stainless steel 304 or 316L or polyester powder paint finish  
 Motor: 60 Hz, PTO thermistors, high or low temperatures, remote terminal box ATEX and offshore protection

## System components

Speed controllers, mounting feet, anti-vibration mounts, matching flanges, inlet bell mouth, flexible connector, protective grilles (impeller or motor side).



## Diameters versus motor poles

Size	2 pole	4 pole	6 pole	8 pole
DN31	x	x		
DN35	x	x		
DN40	x	x		
DN45	x	x		
DN50	x	x		
DN56	x	x		
DN63	x	x		
DN71	x	x	x	
DN80	x	x	x	
DN90		x	x	
DN10		x	x	x
DN12		x	x	x
DN14			x	x



# Type key

## Necessary ordering information

Type and Article no.

### Example

Type: DN31V-2DF.A7.11.G

Article no.: please contact us

Example

# DN 31 V - 2 D F . A7 . 11 G 3

<b>Axial fan</b>	
	<b>FT</b>
	<b>FV</b>
Medium pressure axial fans with adjustable blades MAXvent owlet	<b>DN</b>
<b>Size</b>	
Impeller diameter 315 mm	<b>31</b>
Impeller diameter 350 mm	<b>35</b>
Impeller diameter 400 mm	<b>40</b>
...	
Impeller diameter 1400 mm	<b>14</b>
<b>Airflow direction</b>	
Sucking over motor	<b>A</b>
Blowing over motor	<b>V</b>
<b>Number of poles</b>	
2 pole	<b>2</b>
4 pole	<b>4</b>
6 pole	<b>6</b>
8 pole	<b>8</b>
<b>Type of current</b>	
Three phase alternating current	<b>D</b>
Single phase alternating current	<b>E</b>
ATEX device category 2	<b>Y</b>
ATEX device category 3	<b>Z</b>
<b>Design</b>	
Long casing	<b>F</b>
Short casing	<b>K</b>
Short casing with inlet bell mouth	<b>S</b>
Square plate	<b>Q</b>
<b>Motor</b>	
<b>Motor mounting type</b>	
5	<b>B5</b>
7	<b>B3</b>
<b>Blade adjustment</b>	
11°	<b>11</b>
14°	<b>14</b>
19°	<b>19</b>
24°	<b>24</b>
29°	<b>29</b>
34°	<b>34</b>
<b>Corrosion protection</b>	
	<b>G</b>
	<b>H</b>
<b>Number of blades</b>	
	<b>3</b>
	<b>6</b>

Information

MAXvent owlet

System components

Control technology

General notes

# Selection programme FANselect

The world's best selection programme for fans



At [www.fanselect.info](http://www.fanselect.info), we are offering you FANselect, a selection program for axial and centrifugal fans with the matching system components.

With FANselect, you can, for instance, select and calculate the fans MAXvent outlet listed in this catalogue. FANselect provides you with an option to calculate the efficiency, the acoustics, the SFP and much more. In addition, you can also select the matching systems components. You can conveniently save your configuration in a file or print it out.

The FANselect selection program, including the customer DLL, is available for you to download at any time at [www.fanselect.info](http://www.fanselect.info).





Information

MAXvent owlet

System components

Control technology

General notes



# MAXvent owlet

for three phase alternating current, 2 pole

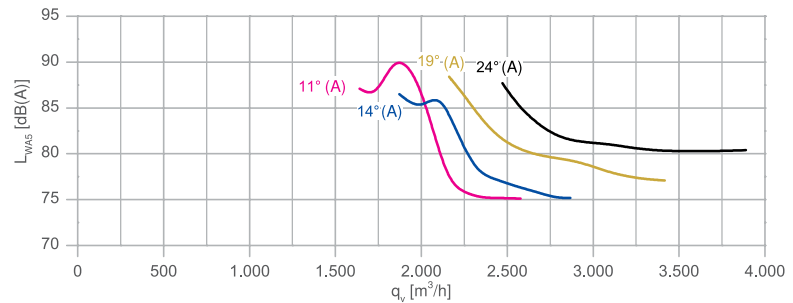
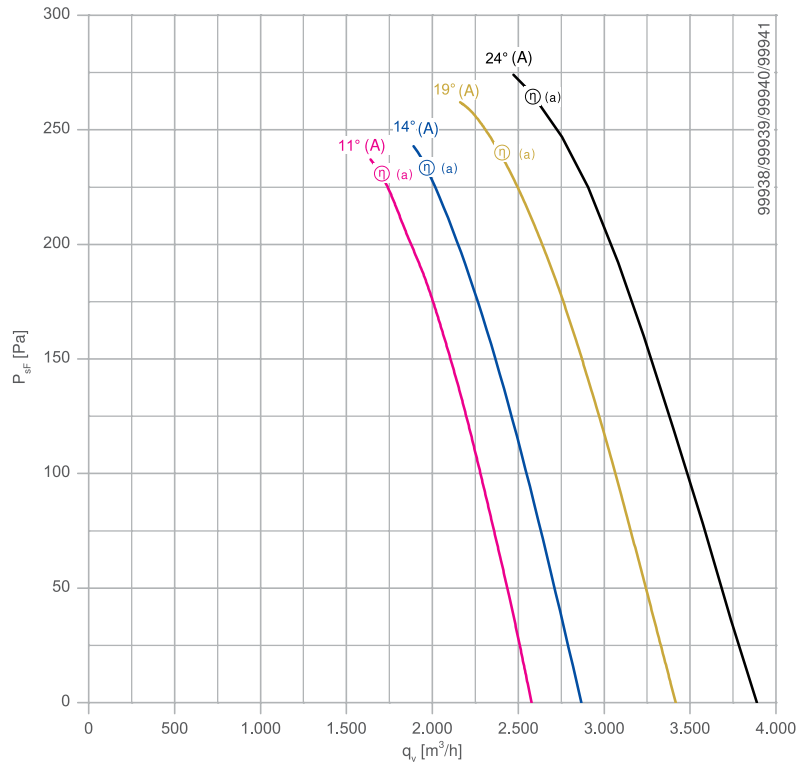
DN31V



## Description

Motor technology: AC  
 Rated voltage  $U_N$ : 3- 400 V\*  
 Rated frequency  $f_N$ : 50 Hz\*  
 Min. permitted conveyor temperature  $t_{R(min)}$ : -20 °C  
 Max. permitted conveyor temperature  $t_{R(max)}$ : 50 °C  
 Number of blades: 7  
 Protection class: IP55  
 Blades: ZAmid, uncoated, Blue  
 Conformity: ErP 2015 ( $N_{target} = 40\%$ ), CE, GOST  
 \* Rated data

## Characteristic curve

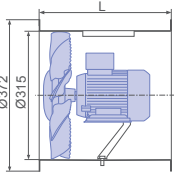


- (A) - Performance with big motor
- (B) - Performance with small motor
- Temperature limit point for motor, when duty point is at this limit a customized measurement is recommended
- (a) - Best efficiency with big motor
- (b) - Best efficiency with small motor

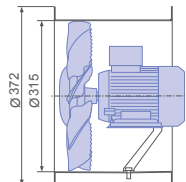
Measured in long casing with inlet bell mouth without guard grille in installation type A air flow impeller/ motor according to ISO 5801

## Designs / Dimensions [mm]

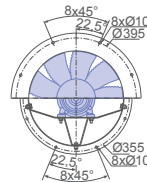
Design F  
Long casing



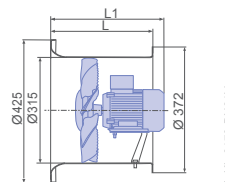
Design K  
Short casing



Front view - Design S  
Back view - Design F/K/S



Design S - Short casing  
with integrated inlet bell mouth



## Technical data

Type	Blade setting	Rated Power	Motor size	Rated current	Design F Casing length (L)	Design S Fan length (L1)	Design F Weight	Efficiency	Actual efficiency grade
	[°]	[kW]		$I_N$ [A]	[mm]	[mm]	[kg]	$\eta_{statA}$ %	$N_{actual}$ %
DN31V-2DF.A7.11.G	11	0.37	071M	0.94	365	360	17.00	34.2	43.6
DN31V-2DF.A7.14.G	14	0.37	071M	0.94	365	360	17.00	35.0	44.1
DN31V-2DF.A7.19.G	19	0.37	071M	0.94	365	360	17.00	34.5	42.8
DN31V-2DF.A7.24.G	24	0.55	071M	1.33	365	360	17.00	33.0	40.7



# MAXvent owlet

for three phase alternating current, 4 pole

DN31V

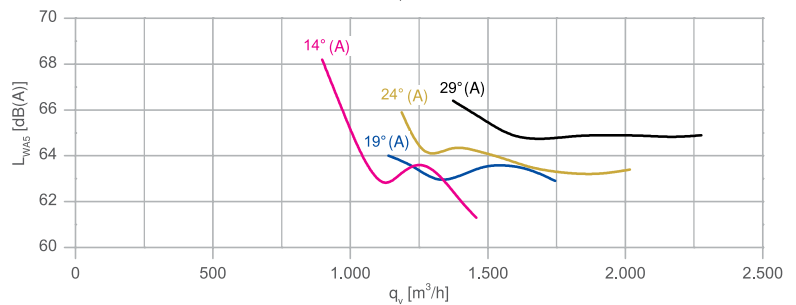
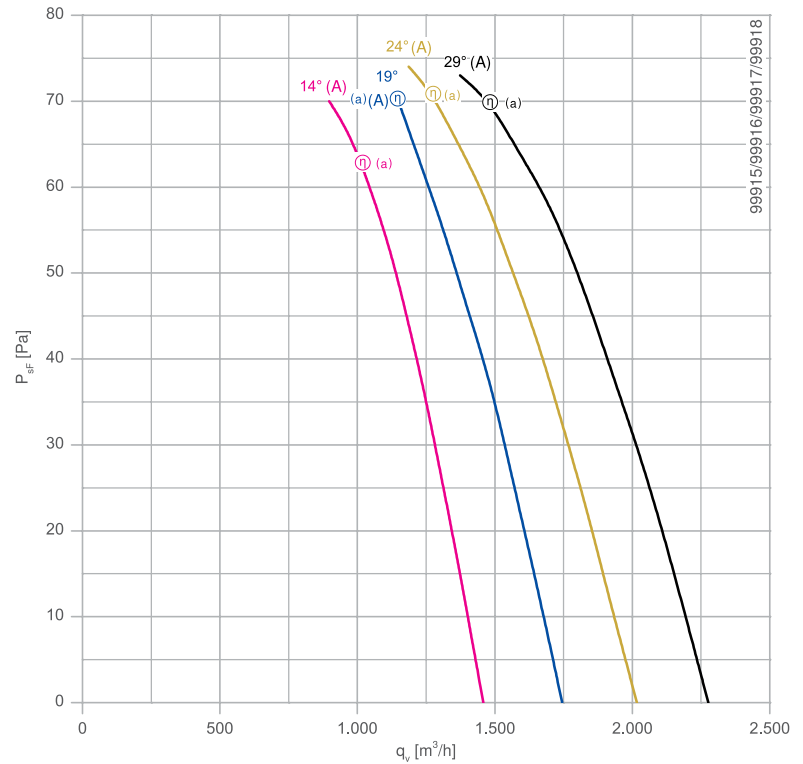


## Description

Motor technology: AC  
 Rated voltage  $U_N$ : 3~ 400 V\*  
 Rated frequency  $f_N$ : 50 Hz\*  
 Min. permitted conveyor temperature  $t_{R(min)}$ : -20 °C  
 Max. permitted conveyor temperature  $t_{R(max)}$ : 50 °C  
 Number of blades: 7  
 Protection class: IP55  
 Blades: High Performance Composite Material, uncoated, blue/black  
 Conformity: CE, GOST  
 Not subject to the regulations of ErP directive ( $P_1 < 125$  W)  
 \* Rated data

- (A) - Performance with big motor
- (B) - Performance with small motor
- Temperature limit point for motor, when duty point is at this limit a customized measurement is recommended
- (a) - Best efficiency with big motor
- (b) - Best efficiency with small motor

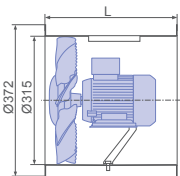
## Characteristic curve



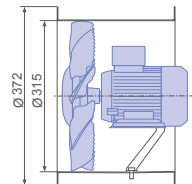
Measured in long casing with inlet bell mouth without guard grille in installation type A air flow impeller/ motor according to ISO 5801

## Designs / Dimensions [mm]

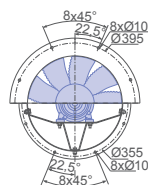
Design F  
Long casing



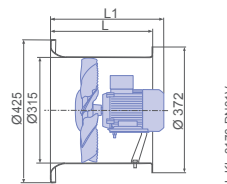
Design K  
Short casing



Front view - Design S  
Back view - Design F/K/S



Design S - Short casing  
with integrated inlet bell mouth



## Technical data

Type	Blade setting	Rated Power	Motor size	Rated current	Design F Casing length (L)	Design S Fan length (L1)	Design F Weight	Efficiency	Actual efficiency grade
	[°]	[kW]		$I_N$ [A]	[mm]	[mm]	[kg]	$\eta_{statA}$ %	$N_{actual}$ %
DN31V-4DF.87.14.G	14	0.06	056M	0.27	365	355	14.00	23.9	out of ErP scope
DN31V-4DF.87.19.G	19	0.06	056M	0.27	365	355	14.00	25.8	out of ErP scope
DN31V-4DF.87.24.G	24	0.06	056M	0.27	365	355	14.00	25.2	out of ErP scope
DN31V-4DF.87.29.G	29	0.09	056M	0.37	365	355	14.00	24.0	out of ErP scope

# MAXvent owlet

for three phase alternating current, 2 pole

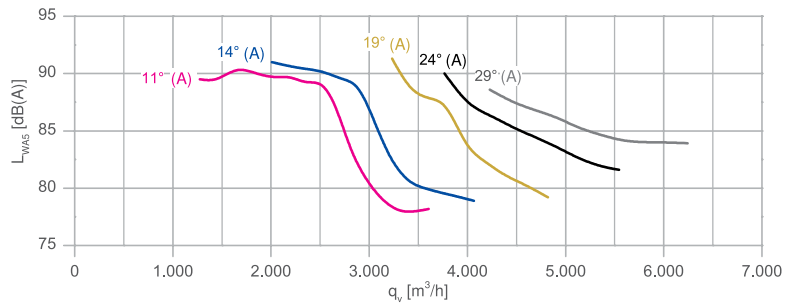
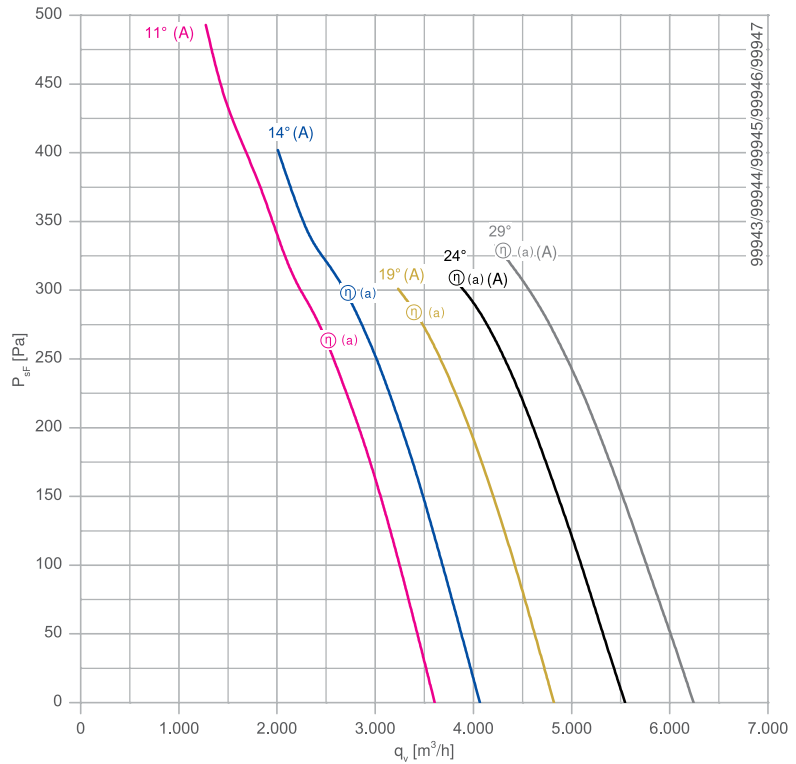
DN35V



## Description

Motor technology: AC  
 Rated voltage  $U_N$ : 3- 400 V\*  
 Rated frequency  $f_N$ : 50 Hz\*  
 Min. permitted conveyor temperature  $t_{R(min)}$ : -20 °C  
 Max. permitted conveyor temperature  $t_{R(max)}$ : 50 °C  
 Number of blades: 7  
 Protection class: IP55  
 Blades: ZAmid, uncoated, Blue  
 Conformity: ErP 2015 ( $N_{target} = 40 \%$ ), CE, GOST  
 \* Rated data

## Characteristic curve

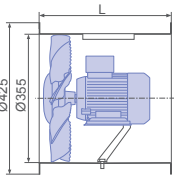


- (A) - Performance with big motor
- (B) - Performance with small motor
- Temperature limit point for motor, when duty point is at this limit a customized measurement is recommended
- (a) - Best efficiency with big motor
- (b) - Best efficiency with small motor

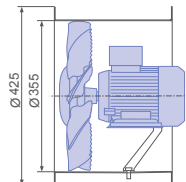
Measured in long casing with inlet bell mouth without guard grille in installation type A air flow impeller/motor according to ISO 5801

## Designs / Dimensions [mm]

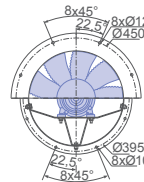
Design F  
Long casing



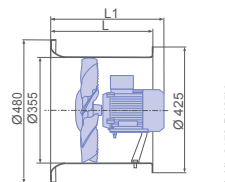
Design K  
Short casing



Front view - Design S  
Back view - Design F/K/S



Design S - Short casing  
with integrated inlet bell mouth



## Technical data

Type	Blade setting	Rated Power	Motor size	Rated current	Design F Casing length (L)	Design S Fan length (L1)	Design F Weight	Efficiency	Actual efficiency grade
	[°]	[kW]		$I_N$ [A]	[mm]	[mm]	[kg]	$\eta_{statA}$ %	$N_{actual}$ %
DN35V-2DF.A7.11.G	11	0.37	071M	0.94	410	360	19.00	41.7	50.2
DN35V-2DF.A7.14.G	14	0.55	071M	1.33	410	360	20.00	41.3	49.2
DN35V-2DF.B7.19.G	19	0.75	080M	1.69	410	405	25.00	40.2	47.6
DN35V-2DF.B7.24.G	24	0.75	080M	1.69	410	405	25.00	37.1	43.7
DN35V-2DF.B7.29.G	29	1.10	080M	2.37	410	405	27.00	35.1	41.1



# MAXvent owlet

for three phase alternating current, 4 pole

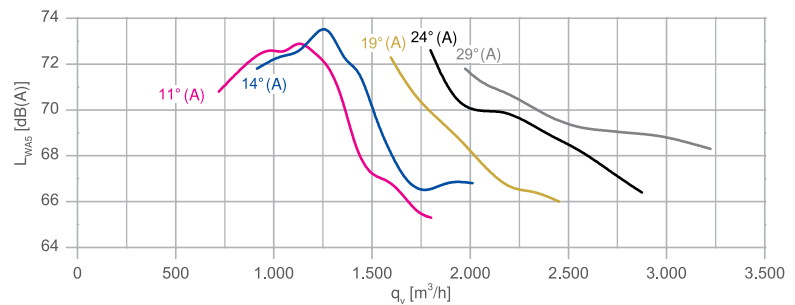
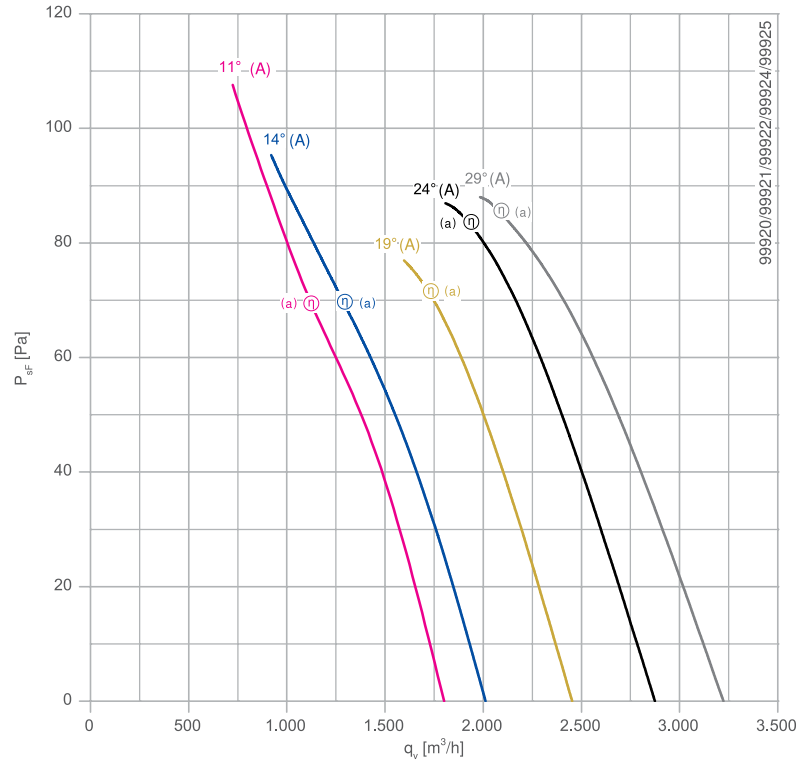
DN35V



## Description

Motor technology: AC  
 Rated voltage  $U_N$ : 3~ 400 V\*  
 Rated frequency  $f_N$ : 50 Hz\*  
 Min. permitted conveyor temperature  $t_{R(min)}$ : -20 °C  
 Max. permitted conveyor temperature  $t_{R(max)}$ : 50 °C  
 Number of blades: 7  
 Protection class: IP55  
 Blades: High Performance Composite Material, uncoated, blue/black  
 Conformity: CE, GOST  
 Not subject to the regulations of ErP directive ( $P_1 < 125$  W)  
 \* Rated data

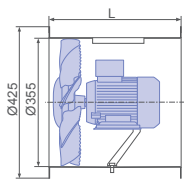
## Characteristic curve



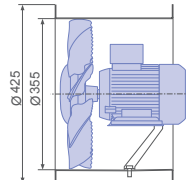
Measured in long casing with inlet bell mouth without guard grille in installation type A air flow impeller/ motor according to ISO 5801

## Designs / Dimensions [mm]

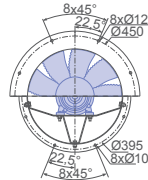
Design F  
Long casing



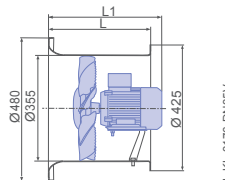
Design K  
Short casing



Front view - Design S  
Back view - Design F/K/S



Design S - Short casing  
with integrated inlet bell mouth



## Technical data

Type	Blade setting	Rated Power	Motor size	Rated current	Design F Casing length (L)	Design S Fan length (L1)	Design F Weight	Efficiency	Actual efficiency grade
	[°]	[kW]		$I_N$ [A]	[mm]	[mm]	[kg]	$\eta_{statA}$ %	$N_{actual}$ %
DN35V-4DF.87.11.G	11	0.06	056M	0.27	410	325	16.00	26.4	out of ErP scope
DN35V-4DF.87.14.G	14	0.06	056M	0.27	410	355	16.00	27.4	out of ErP scope
DN35V-4DF.87.19.G	19	0.06	056M	0.27	410	355	17.00	29.7	out of ErP scope
DN35V-4DF.97.24.G	24	0.12	063M	0.42	410	340	18.00	30.1	41.6
DN35V-4DF.97.29.G	29	0.12	063M	0.42	410	340	18.00	28.9	40.0

# MAXvent owlet

for three phase alternating current, 2 pole

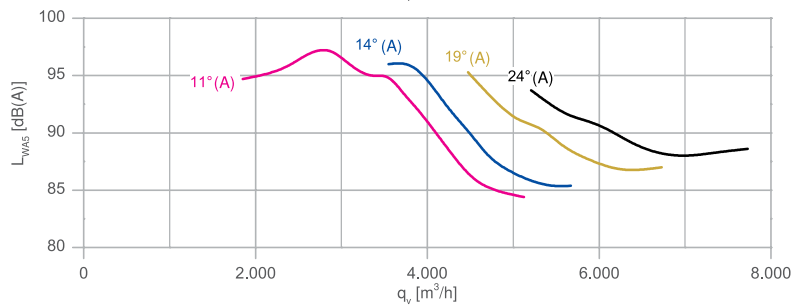
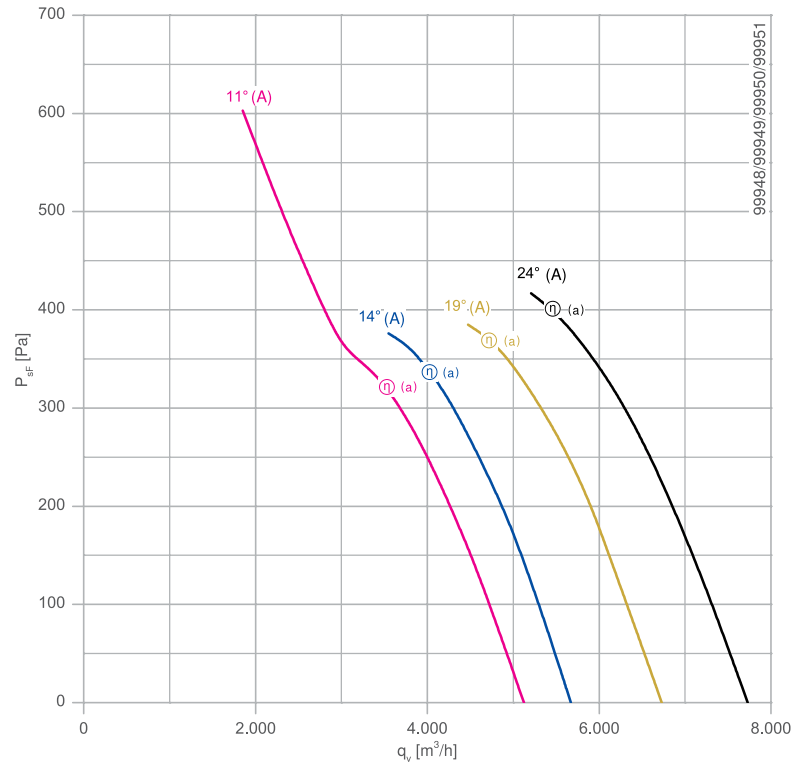
DN40V



## Description

Motor technology: AC  
 Rated voltage  $U_N$ : 3- 400 V\*  
 Rated frequency  $f_N$ : 50 Hz\*  
 Min. permitted conveyor temperature  $t_{R(min)}$ : -20 °C  
 Max. permitted conveyor temperature  $t_{R(max)}$ : 50 °C  
 Number of blades: 9  
 Protection class: IP55  
 Blades: ZAmid, uncoated, Blue  
 Conformity: ErP 2015 ( $N_{target} = 40\%$ ), CE, GOST  
 \* Rated data

## Characteristic curve

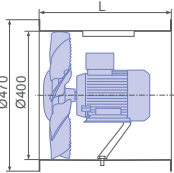


- (A) - Performance with big motor
- (B) - Performance with small motor
- Temperature limit point for motor, when duty point is at this limit a customized measurement is recommended
- (a) - Best efficiency with big motor
- (b) - Best efficiency with small motor

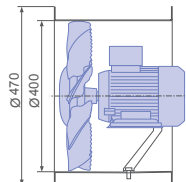
Measured in long casing with inlet bell mouth without guard grille in installation type A air flow impeller/motor according to ISO 5801

## Designs / Dimensions [mm]

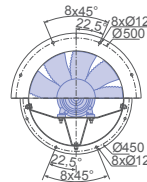
Design F  
Long casing



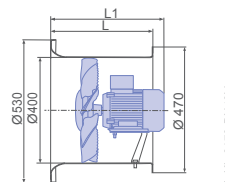
Design K  
Short casing



Front view - Design S  
Back view - Design F/K/S



Design S - Short casing  
with integrated inlet bell mouth



## Technical data

Type	Blade setting	Rated Power	Motor size	Rated current	Design F Casing length (L)	Design S Fan length (L1)	Design F Weight	Efficiency	Actual efficiency grade
	[°]	[kW]		$I_N$ [A]	[mm]	[mm]	[kg]	$\eta_{statA}$ %	$N_{actual}$ %
DN40V-2DF.B7.11.G	11	0.75	080M	1.69	470	441	30.00	39.8	46.8
DN40V-2DF.B7.14.G	14	1.10	080M	2.37	470	441	31.00	38.8	45.1
DN40V-2DF.B7.19.G	19	1.10	080M	2.37	470	441	31.00	38.3	43.9
DN40V-2DF.C7.24.G	24	1.50	090S	3.13	470	476	36.00	35.5	40.3



# MAXvent owlet

for three phase alternating current, 4 pole

DN40V

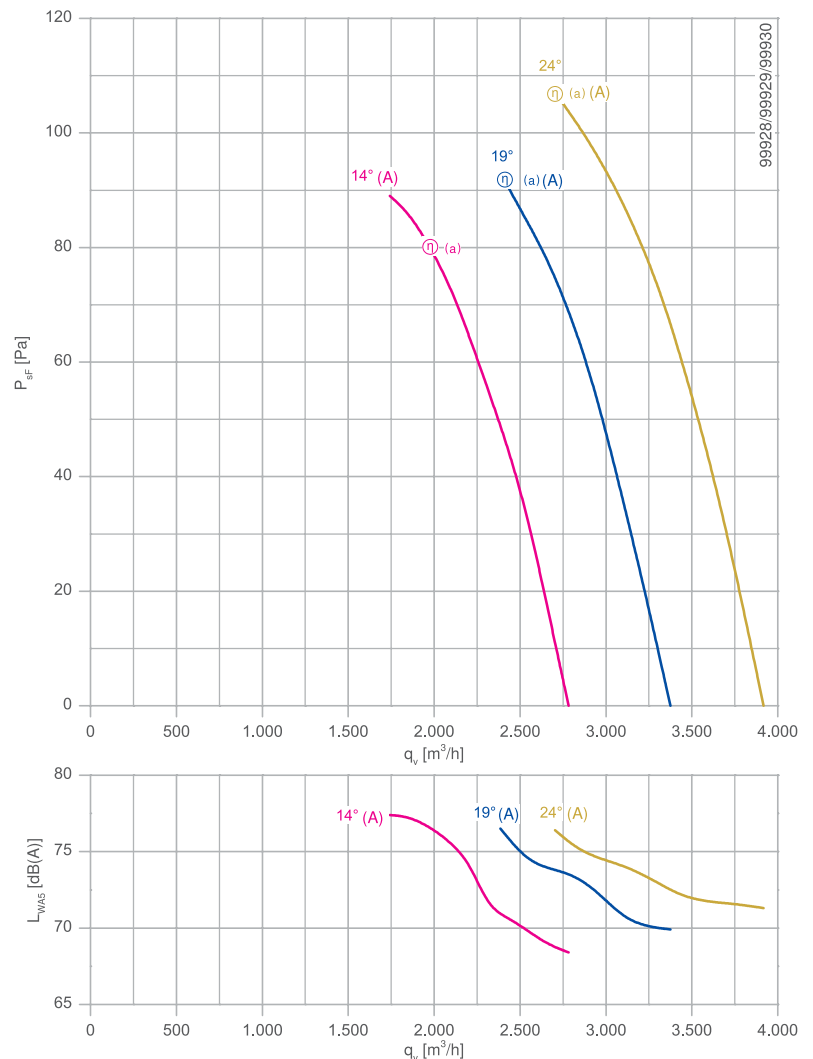


## Description

Motor technology: AC  
 Rated voltage  $U_N$ : 3~ 400 V\*  
 Rated frequency  $f_N$ : 50 Hz\*  
 Min. permitted conveyor temperature  $t_{R(min)}$ : -20 °C  
 Max. permitted conveyor temperature  $t_{R(max)}$ : 50 °C  
 Number of blades: 9  
 Protection class: IP55  
 Blades: High Performance Composite Material, uncoated, blue/black  
 Conformity: ErP 2015 ( $N_{target} = 40\%$ ), CE, GOST  
 \* Rated data

- (A) - Performance with big motor
- (B) - Performance with small motor
- Temperature limit point for motor, when duty point is at this limit a customized measurement is recommended
- (a) - Best efficiency with big motor
- (b) - Best efficiency with small motor

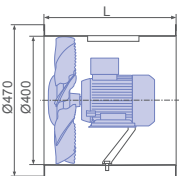
## Characteristic curve



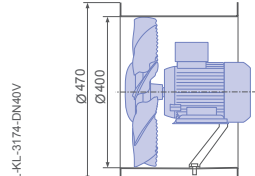
Measured in long casing with inlet bell mouth without guard grille in installation type A air flow impeller/ motor according to ISO 5801

## Designs / Dimensions [mm]

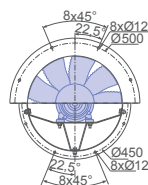
Design F  
Long casing



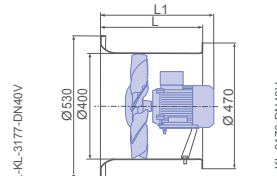
Design K  
Short casing



Front view - Design S  
Back view - Design F/K/S



Design S - Short casing  
with integrated inlet bell mouth



## Technical data

Type	Blade setting	Rated Power	Motor size	Rated current	Design F Casing length (L)	Design S Fan length (L1)	Design F Weight	Efficiency	Actual efficiency grade
	[°]	[kW]		$I_N$ [A]	[mm]	[mm]	[kg]	$\eta_{statA}$ %	$N_{actual}$ %
DN40V-4DF.97.14.G	14	0.12	063M	0.42	470	368	22.00	29.5	41.0
DN40V-4DF.97.19.G	19	0.18	063M	0.59	470	368	22.00	29.8	40.4
DN40V-4DF.A7.24.G	24	0.25	071A	0.75	470	396	23.00	30.5	40.4

# MAXvent owlet

for three phase alternating current, 2 pole

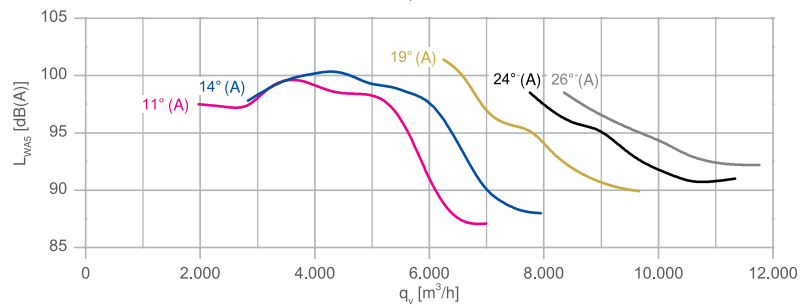
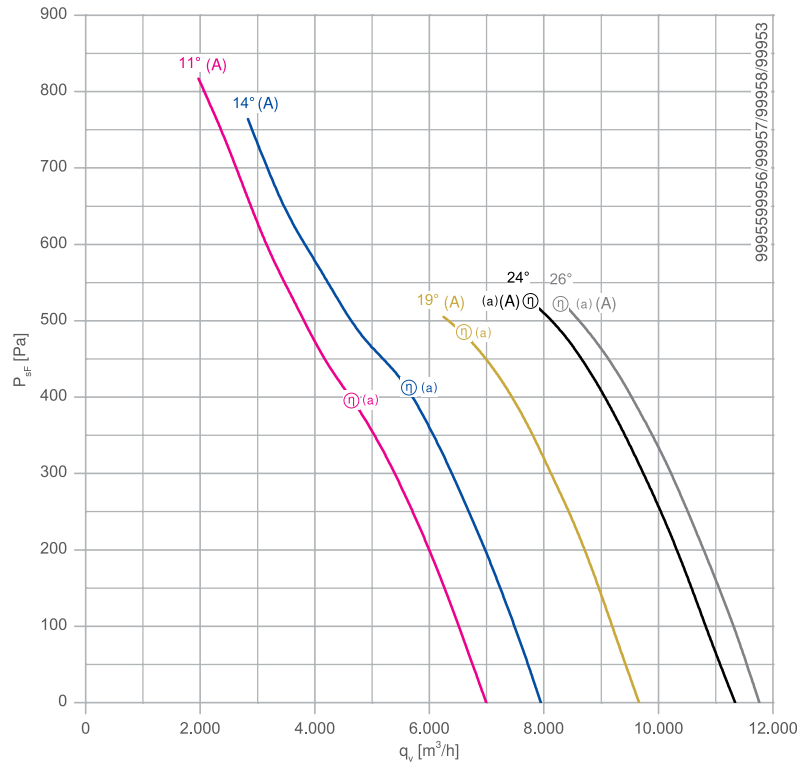
DN45V



## Description

Motor technology: AC  
 Rated voltage  $U_N$ : 3- 400 V\*  
 Rated frequency  $f_N$ : 50 Hz\*  
 Min. permitted conveyor temperature  $t_{R(min)}$ : -20 °C  
 Max. permitted conveyor temperature  $t_{R(max)}$ : 50 °C  
 Number of blades: 9  
 Protection class: IP55  
 Blades: ZAmid, uncoated, Blue  
 Conformity: ErP 2015 ( $N_{target} = 40\%$ ), CE, GOST  
 \* Rated data

## Characteristic curve

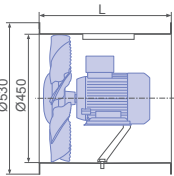


- (A) - Performance with big motor
- (B) - Performance with small motor
- Temperature limit point for motor, when duty point is at this limit a customized measurement is recommended
- (a) - Best efficiency with big motor
- (b) - Best efficiency with small motor

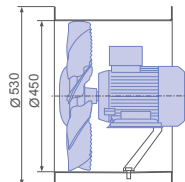
Measured in long casing with inlet bell mouth without guard grille in installation type A air flow impeller/ motor according to ISO 5801

## Designs / Dimensions [mm]

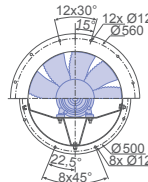
Design F  
Long casing



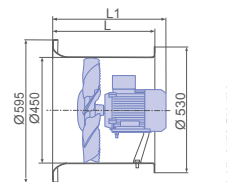
Design K  
Short casing



Front view - Design S  
Back view - Design F/K/S



Design S - Short casing  
with integrated inlet bell mouth



## Technical data

Type	Blade setting	Rated Power	Motor size	Rated current	Design F Casing length (L)	Design S Fan length (L1)	Design F Weight	Efficiency	Actual efficiency grade
	[°]	[kW]		$I_N$ [A]	[mm]	[mm]	[kg]	$\eta_{statA}$ %	$N_{actual}$ %
DN45V-2DF.C7.11.G	11	1.50	090S	3.13	470	511	38.00	40.8	46.4
DN45V-2DF.C7.14.G	14	1.50	090S	3.13	470	511	38.00	42.7	47.8
DN45V-2DF.D7.19.G	19	2.20	090L	4.49	470	536	43.00	43.9	48.2
DN45V-2DF.E7.24.G	24	3.00	100L	5.88	500	582	51.00	40.2	43.7
DN45V-2DF.F7.26.G	26	4.00	112M	7.65	500	631	56.00	38.1	41.2





# MAXvent owlet

for three phase alternating current, 4 pole

DN45V

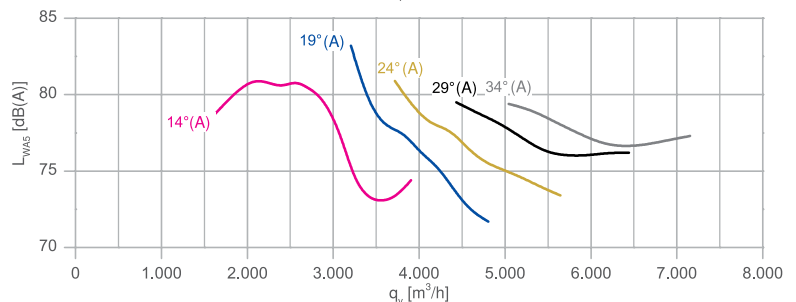
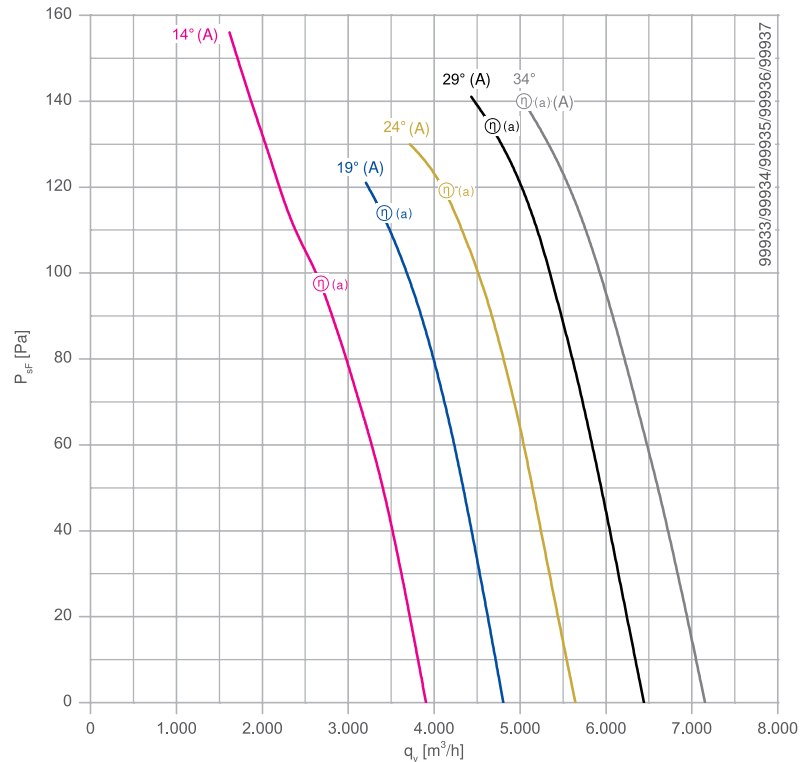


## Description

Motor technology: AC  
 Rated voltage  $U_N$ : 3~ 400 V\*  
 Rated frequency  $f_N$ : 50 Hz\*  
 Min. permitted conveyor temperature  $t_{R(min)}$ : -20 °C  
 Max. permitted conveyor temperature  $t_{R(max)}$ : 50 °C  
 Number of blades: 9  
 Protection class: IP55  
 Blades: High Performance Composite Material, uncoated, blue/black  
 Conformity: ErP 2015 ( $N_{target} = 40\%$ ), CE, GOST  
 \* Rated data

- (A) - Performance with big motor
- (B) - Performance with small motor
- Temperature limit point for motor, when duty point is at this limit a customized measurement is recommended
- (a) - Best efficiency with big motor
- (b) - Best efficiency with small motor

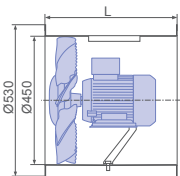
## Characteristic curve



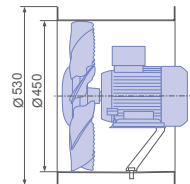
Measured in long casing with inlet bell mouth without guard grille in installation type A air flow impeller/ motor according to ISO 5801

## Designs / Dimensions [mm]

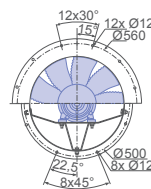
Design F  
Long casing



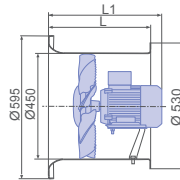
Design K  
Short casing



Front view - Design S  
Back view - Design F/K/S



Design S - Short casing  
with integrated inlet bell mouth



## Technical data

Type	Blade setting	Rated Power	Motor size	Rated current	Design F Casing length (L)	Design S Fan length (L1)	Design F Weight	Efficiency	Actual efficiency grade
	[°]	[kW]		$I_N$ [A]	[mm]	[mm]	[kg]	$\eta_{statA}$ %	$N_{actual}$ %
DN45V-4DF.97.14.G	14	0.18	063M	0.59	470	403	24.00	33.1	43.5
DN45V-4DF.A7.19.G	19	0.25	071A	0.75	470	431	25.00	35.5	45.0
DN45V-4DF.A7.24.G	24	0.37	071B	1.06	470	431	26.00	35.5	44.4
DN45V-4DF.B7.29.G	29	0.55	080M	1.31	470	476	32.00	34.3	42.4
DN45V-4DF.B7.34.G	34	0.55	080M	1.31	470	476	32.00	32.5	40.2

# MAXvent owlet

for three phase alternating current, 2 pole

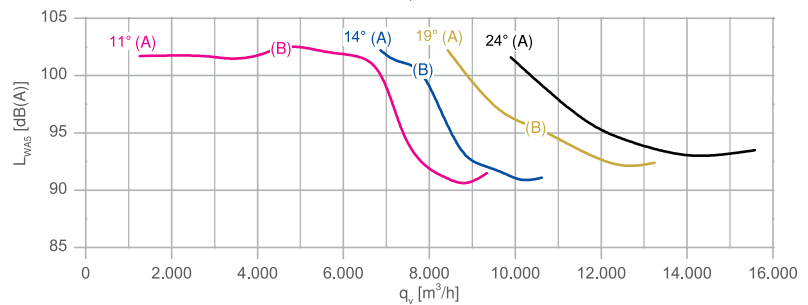
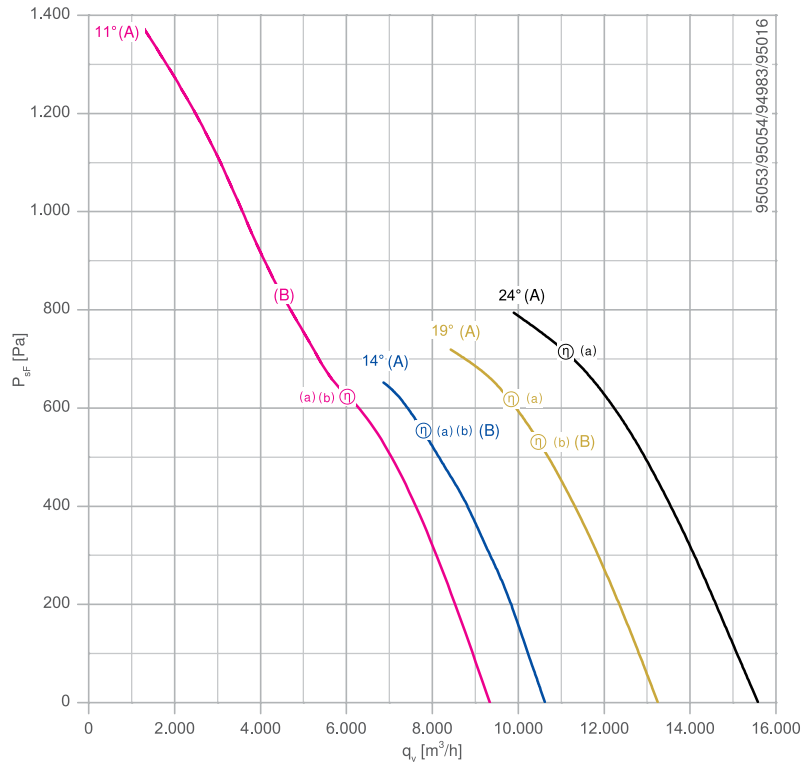
DN50V



## Description

Motor technology: AC  
 Rated voltage  $U_N$ : 3~ 400 V\*  
 Rated frequency  $f_N$ : 50 Hz\*  
 Min. permitted conveyor temperature  $t_{R(min)}$ : -20 °C  
 Max. permitted conveyor temperature  $t_{R(max)}$ : 50 °C  
 Number of blades: 9  
 Protection class: IP55  
 Blades: ZAmid, uncoated, Blue  
 Conformity: ErP 2015 ( $N_{target} = 40\%$ ), CE, GOST  
 \* Rated data

## Characteristic curve

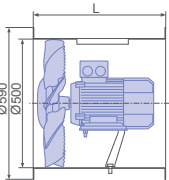


- (A) - Performance with big motor
- (B) - Performance with small motor
- Temperature limit point for motor, when duty point is at this limit a customized measurement is recommended
- (a) - Best efficiency with big motor
- (b) - Best efficiency with small motor

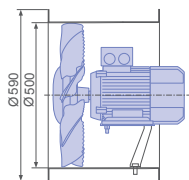
Measured in long casing with inlet bell mouth without guard grille in installation type A air flow impeller/motor according to ISO 5801

## Designs / Dimensions [mm]

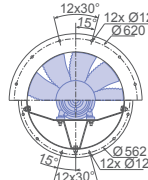
Design F  
Long casing



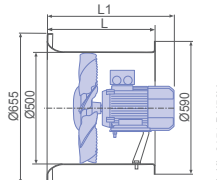
Design K  
Short casing



Front view - Design S  
Back view - Design F/K/S



Design S - Short casing  
with integrated inlet bell mouth



## Technical data

Type	Blade setting	Rated Power	Motor size	Rated current	Design F Casing length (L)	Design S Fan length (L1)	Design F Weight	Efficiency	Actual efficiency grade
	[°]	[kW]		$I_N$ [A]	[mm]	[mm]	[kg]	$\eta_{statA}$ %	$N_{actual}$ %
DN50V-2DF.D7.11.G	11	2.20	090L	4.49	470	542	46.00	44.5	48.4
DN50V-2DF.E7.11.G	11	3.00	100L	5.88	515	588	55.00	44.5	48.4
DN50V-2DF.D7.14.G	14	2.20	090L	4.49	470	542	46.00	44.7	48.3
DN50V-2DF.E7.14.G	14	3.00	100L	5.88	515	588	55.00	44.7	48.3
DN50V-2DF.E7.19.G	19	3.00	100L	5.88	515	588	55.00	42.5	45.2
DN50V-2DF.F7.19.G	19	4.00	112M	7.65	515	637	60.00	43.7	46.3
DN50V-2DF.G7.24.G	24	5.50	132S	10.40	605	665	80.00	42.4	44.1



# MAXvent owlet

for three phase alternating current, 4 pole

DN50V

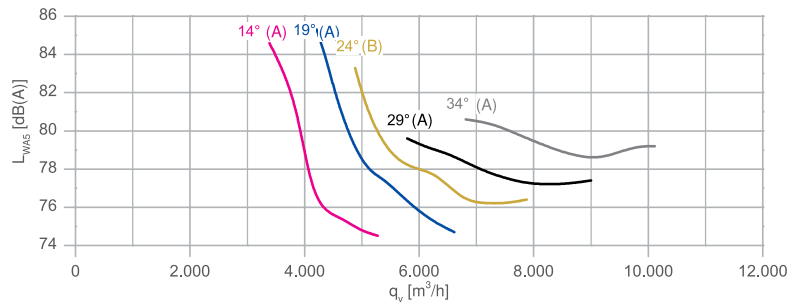
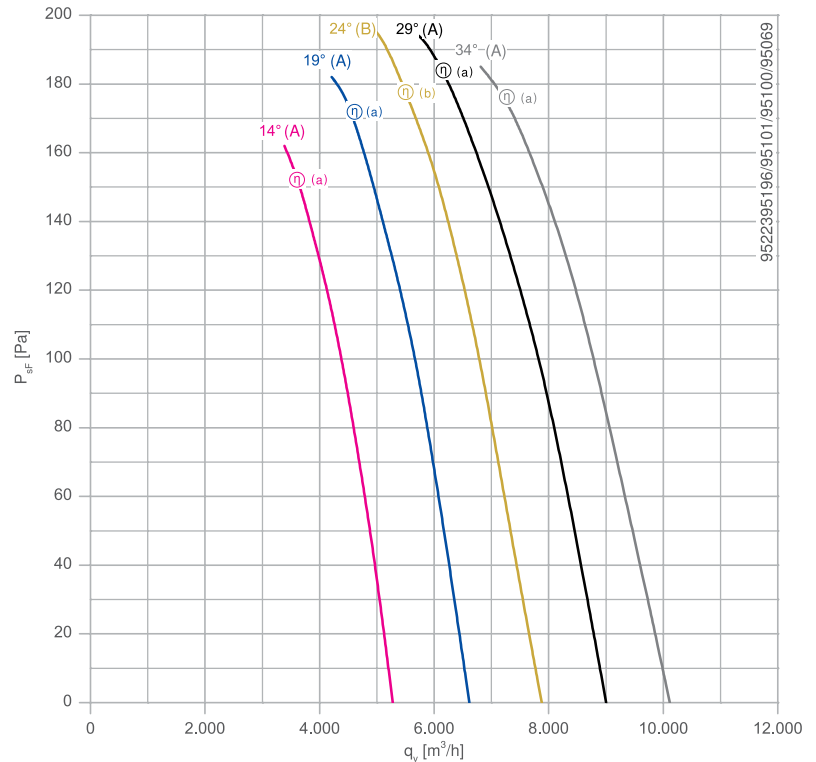


## Description

Motor technology: AC  
 Rated voltage  $U_N$ : 3~ 400 V\*  
 Rated frequency  $f_N$ : 50 Hz\*  
 Min. permitted conveyor temperature  $t_{R(min)}$ : -20 °C  
 Max. permitted conveyor temperature  $t_{R(max)}$ : 50 °C  
 Number of blades: 9  
 Protection class: IP55  
 Blades: High Performance Composite Material, uncoated, blue/black  
 Conformity: ErP 2015 ( $N_{target} = 40\%$ ), CE, GOST  
 \* Rated data

- (A) - Performance with big motor
- (B) - Performance with small motor
- Temperature limit point for motor, when duty point is at this limit a customized measurement is recommended
- (a) - Best efficiency with big motor
- (b) - Best efficiency with small motor

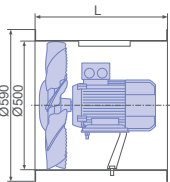
## Characteristic curve



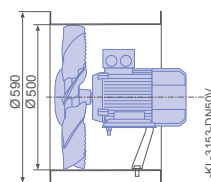
Measured in long casing with inlet bell mouth without guard grille in installation type A air flow impeller/ motor according to ISO 5801

## Designs / Dimensions [mm]

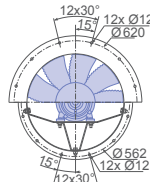
Design F  
Long casing



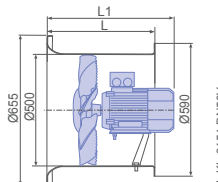
Design K  
Short casing



Front view - Design S  
Back view - Design F/K/S



Design S - Short casing  
with integrated inlet bell mouth



## Technical data

Type	Blade setting	Rated Power	Motor size	Rated current	Design F Casing length (L)	Design S Fan length (L1)	Design F Weight	Efficiency	Actual efficiency grade
	[°]	[kW]		$I_N$ [A]	[mm]	[mm]	[kg]	$\eta_{statA}$ %	$N_{actual}$ %
DN50V-4DF.A7.14.G	14	0.37	071B	1.06	470	438	29.00	37.5	46.2
DN50V-4DF.B7.19.G	19	0.55	080M	1.31	470	483	35.00	38.2	46.0
DN50V-4DF.B7.24.G	24	0.55	080M	1.31	470	483	35.00	37.6	47.2
DN50V-4DF.B7.29.G	29	0.75	080M	1.78	470	483	37.00	37.5	44.2
DN50V-4DF.C7.34.G	34	1.10	090S	2.53	470	517	42.00	34.0	40.1

# MAXvent owlet

for three phase alternating current, 2 pole

DN56V

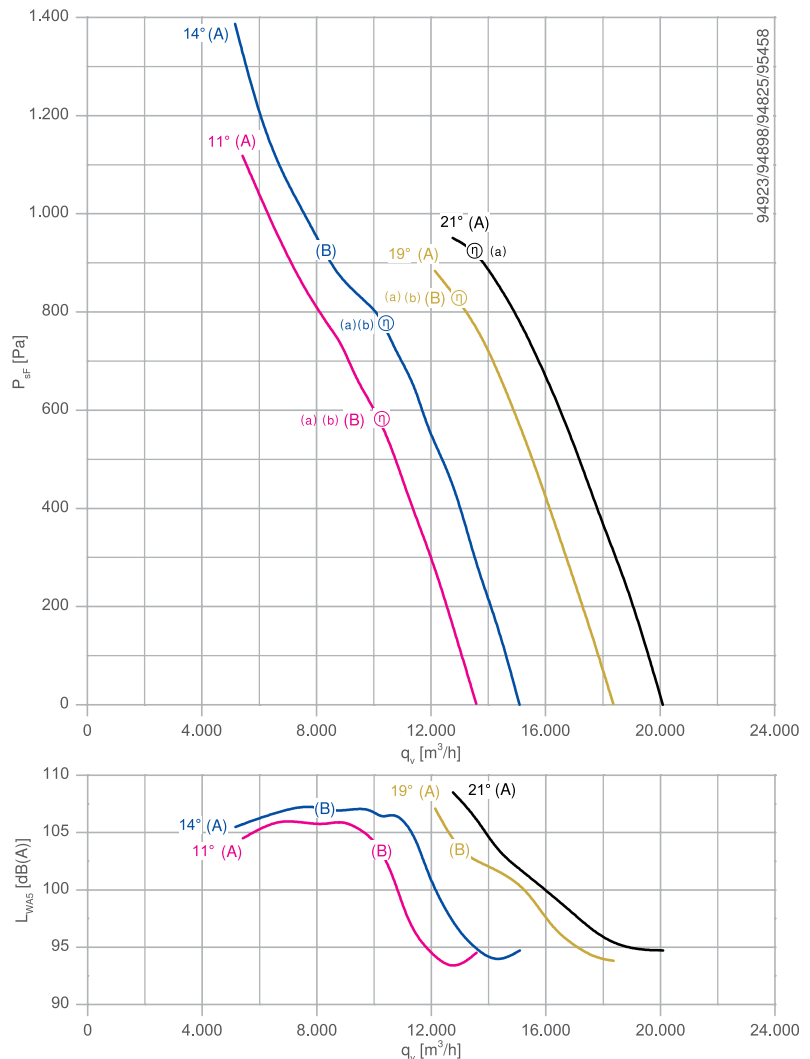


## Description

Motor technology: AC  
 Rated voltage  $U_N$ : 3- 400 V\*  
 Rated frequency  $f_N$ : 50 Hz\*  
 Min. permitted conveyor temperature  $t_{R(min)}$ : -20 °C  
 Max. permitted conveyor temperature  $t_{R(max)}$ : 50 °C  
 Number of blades: 9  
 Protection class: IP55  
 Blades: ZAmid, uncoated, Blue  
 Conformity: ErP 2015 ( $N_{target} = 40\%$ ), CE, GOST  
 \* Rated data

- (A) - Performance with big motor
- (B) - Performance with small motor
- Temperature limit point for motor, when duty point is at this limit a customized measurement is recommended
- (a) - Best efficiency with big motor
- (b) - Best efficiency with small motor

## Characteristic curve



Measured in long casing with inlet bell mouth without guard grille in installation type A air flow impeller/motor according to ISO 5801

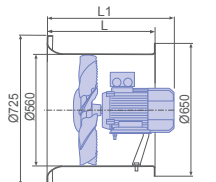
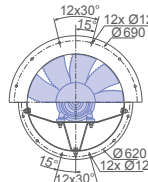
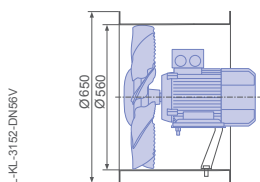
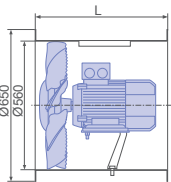
## Designs / Dimensions [mm]

Design F  
Long casing

Design K  
Short casing

Front view - Design S  
Back view - Design F/K/S

Design S - Short casing  
with integrated inlet bell mouth



## Technical data

Type	Blade setting	Rated Power	Motor size	Rated current	Design F Casing length (L)	Design S Fan length (L1)	Design F Weight	Efficiency	Actual efficiency grade
	[°]	[kW]		$I_N$ [A]	[mm]	[mm]	[kg]	$\eta_{statA}$ %	$N_{actual}$ %
DN56V-2DF.E7.11.G	11	3.00	100L	5.88	515	588	57.00	47.1	49.9
DN56V-2DF.F7.11.G	11	4.00	112M	7.65	515	637	62.00	47.1	49.9
DN56V-2DF.F7.14.G	14	4.00	112M	7.65	515	637	62.00	49.3	51.4
DN56V-2DF.G7.14.G	14	5.50	132S	10.40	605	665	83.00	49.3	51.4
DN56V-2DF.G7.19.G	19	5.50	132S	10.40	605	665	83.00	45.7	46.8
DN56V-2DF.G7.19.G	19	7.50	132S	14.00	605	665	88.00	45.7	46.8
DN56V-2DF.G7.21.G	21	7.50	132S	14.00	605	665	88.00	45.5	46.2



# MAXvent owlet

for three phase alternating current, 4 pole

DN56V

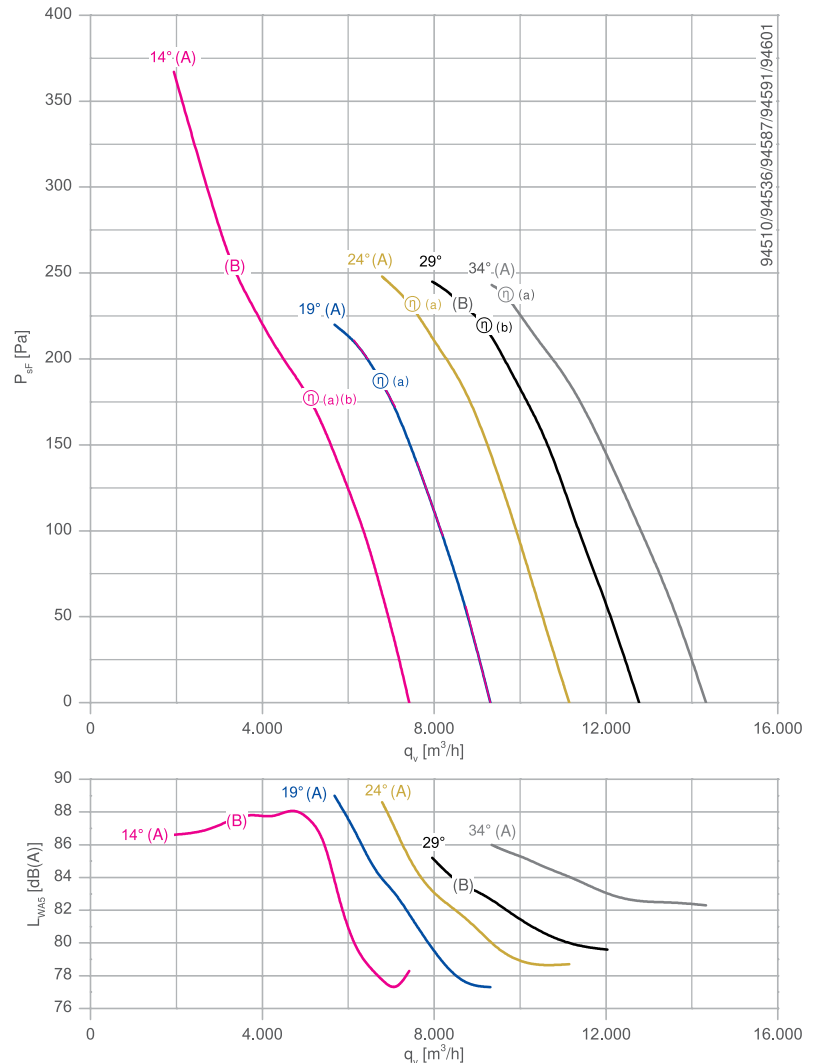


## Description

Motor technology: AC  
 Rated voltage  $U_N$ : 3~ 400 V\*  
 Rated frequency  $f_N$ : 50 Hz\*  
 Min. permitted conveyor temperature  $t_{R(min)}$ : -20 °C  
 Max. permitted conveyor temperature  $t_{R(max)}$ : 50 °C  
 Number of blades: 9  
 Protection class: IP55  
 Blades: High Performance Composite Material, uncoated, blue/black  
 Conformity: ErP 2015 ( $N_{target} = 40\%$ ), CE, GOST  
 \* Rated data

- (A) - Performance with big motor
- (B) - Performance with small motor
- Temperature limit point for motor, when duty point is at this limit a customized measurement is recommended
- (a) - Best efficiency with big motor
- (b) - Best efficiency with small motor

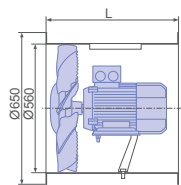
## Characteristic curve



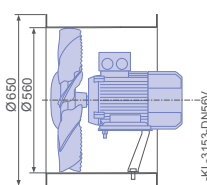
Measured in long casing with inlet bell mouth without guard grille in installation type A air flow impeller/ motor according to ISO 5801

## Designs / Dimensions [mm]

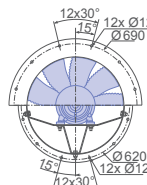
Design F  
Long casing



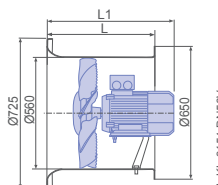
Design K  
Short casing



Front view - Design S  
Back view - Design F/K/S



Design S - Short casing  
with integrated inlet bell mouth



## Technical data

Type	Blade setting	Rated Power	Motor size	Rated current	Design F Casing length (L)	Design S Fan length (L1)	Design F Weight	Efficiency	Actual efficiency grade
	[°]	[kW]		$I_N$ [A]	[mm]	[mm]	[kg]	$\eta_{statA}$ %	$N_{actual}$ %
DN56V-4DF.B7.14.G	14	0.55	080M	1.31	470	461	37.00	40.9	48.5
DN56V-4DF.B7.14.G	14	0.75	080M	1.78	470	478	39.00	40.9	48.5
DN56V-4DF.B7.19.G	19	0.75	080M	1.78	470	478	39.00	44.0	50.8
DN56V-4DF.C7.24.G	24	1.10	090S	2.53	470	513	44.00	43.0	48.9
DN56V-4DF.C7.29.G	29	1.10	090S	2.53	470	513	44.00	39.5	45.8
DN56V-4DF.D7.34.G	34	1.50	090L	3.31	470	538	47.00	38.0	42.8

# MAXvent owlet

for three phase alternating current, 2 pole

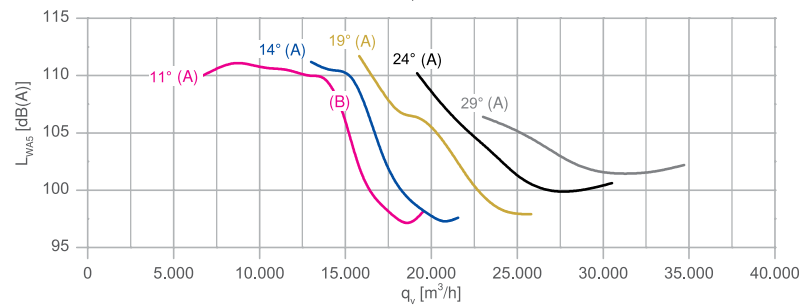
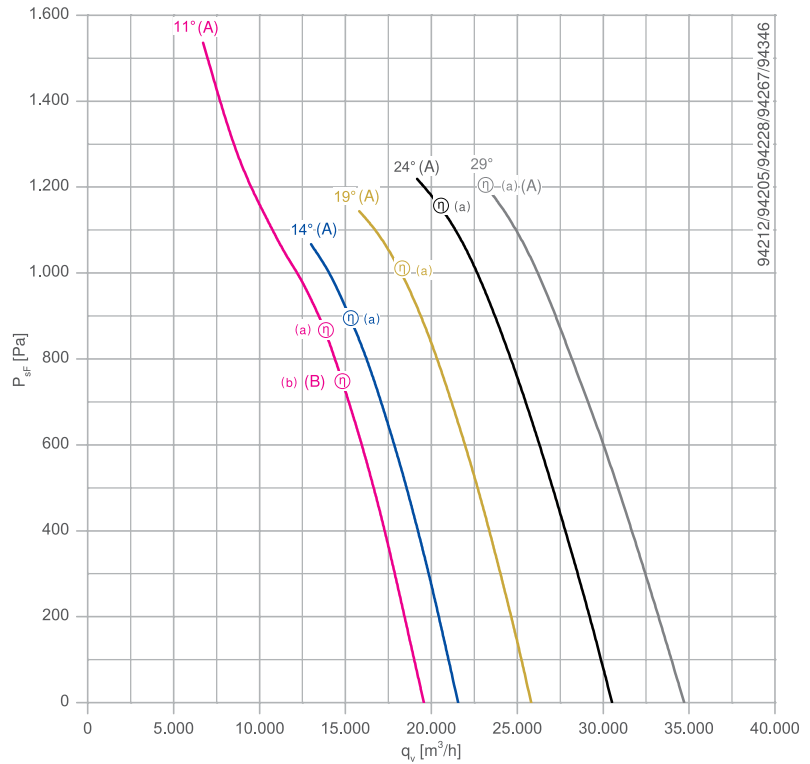
DN63V



## Description

Motor technology: AC  
 Rated voltage  $U_N$ : 3- 400 V\*  
 Rated frequency  $f_N$ : 50 Hz\*  
 Min. permitted conveyor temperature  $t_{R(min)}$ : -20 °C  
 Max. permitted conveyor temperature  $t_{R(max)}$ : 50 °C  
 Number of blades: 9  
 Protection class: IP55  
 Blades: ZAmid, uncoated, Blue  
 Conformity: ErP 2015 ( $N_{target} = 40\%$ ), CE, GOST  
 \* Rated data

## Characteristic curve

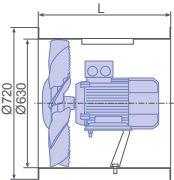


- (A) - Performance with big motor
- (B) - Performance with small motor
- Temperature limit point for motor, when duty point is at this limit a customized measurement is recommended
- (a) - Best efficiency with big motor
- (b) - Best efficiency with small motor

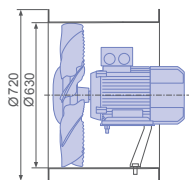
Measured in long casing with inlet bell mouth without guard grille in installation type A air flow impeller/motor according to ISO 5801

## Designs / Dimensions [mm]

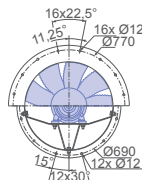
Design F  
Long casing



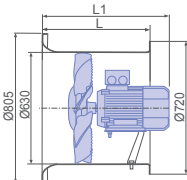
Design K  
Short casing



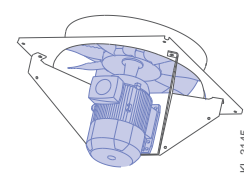
Front view - Design S  
Back view - Design F/K/S



Design S - Short casing  
with integrated inlet bell mouth



Design Q  
Square plate



## Technical data

Type	Blade setting	Rated Power	Motor size	Rated current	Design F Casing length (L)	Design S Fan length (L1)	Design F Weight	Efficiency	Actual efficiency grade
	[°]	[kW]		$I_N$ [A]	[mm]	[mm]	[kg]	$\eta_{statA}$ %	$N_{actual}$ %
DN63V-2DF.G7.11.G	11	5.50	132S	10.40	605	675	87.00	48.5	49.7
DN63V-2DF.G7.11.G	11	7.50	132S	14.00	605	675	92.00	49.5	50.6
DN63V-2DF.G7.14.G	14	7.50	132S	14.00	605	675	92.00	49.3	50.0
DN63V-2DF.I7.19.G	19	11.00	160M	20.00	715	809	116.00	46.0	45.9
DN63V-2DF.I7.24.G	24	15.00	160M	26.90	715	809	125.00	44.2	44.0
DN63V-2DF.K7.29.G	29	18.50	160L	33.00	715	853	134.00	40.6	40.1



# MAXvent owlet

for three phase alternating current, 4 pole

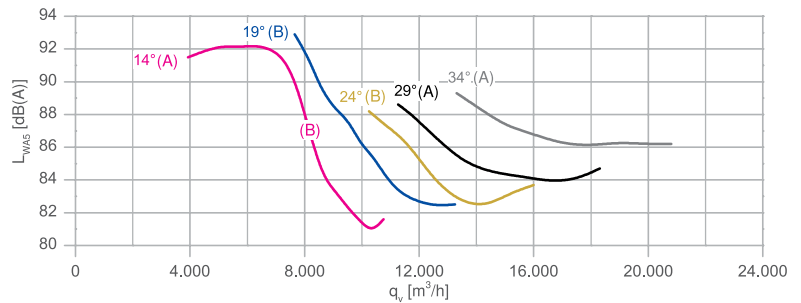
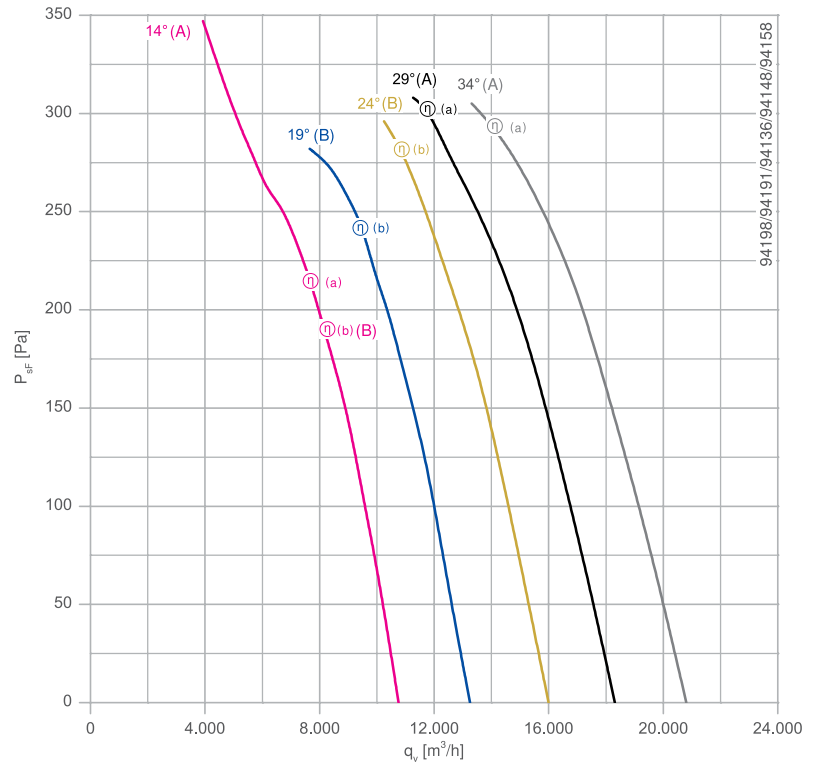
DN63V



## Description

Motor technology: AC  
 Rated voltage  $U_N$ : 3~ 400 V\*  
 Rated frequency  $f_N$ : 50 Hz\*  
 Min. permitted conveyor temperature  $t_{R(min)}$ : -20 °C  
 Max. permitted conveyor temperature  $t_{R(max)}$ : 50 °C  
 Number of blades: 9  
 Protection class: IP55  
 Blades: High Performance Composite Material, uncoated, blue/black  
 Conformity: ErP 2015 ( $N_{target} = 40\%$ ), CE, GOST  
 \* Rated data

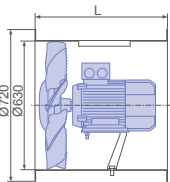
## Characteristic curve



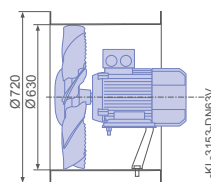
Measured in long casing with inlet bell mouth without guard grille in installation type A air flow impeller/ motor according to ISO 5801

## Designs / Dimensions [mm]

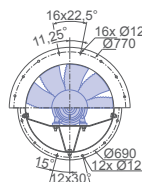
Design F  
Long casing



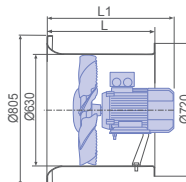
Design K  
Short casing



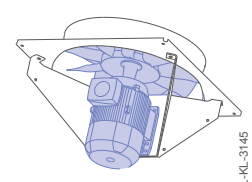
Front view - Design S  
Back view - Design F/K/S



Design S - Short casing  
with integrated inlet bell mouth



Design Q  
Square plate



## Technical data

Type	Blade setting	Rated Power	Motor size	Rated current	Design F Casing length (L)	Design S Fan length (L1)	Design F Weight	Efficiency	Actual efficiency grade
	[°]	[kW]		$I_N$ [A]	[mm]	[mm]	[kg]	$\eta_{statA}$ %	$N_{actual}$ %
DN63V-4DF.B7.14.G	14	0.75	080M	1.78	470	465	43.00	45.9	52.0
DN63V-4DF.C7.14.G	14	1.10	090S	2.53	470	525	47.00	46.2	52.5
DN63V-4DF.C7.19.G	19	1.10	090S	2.53	470	525	47.00	47.4	52.9
DN63V-4DF.D7.24.G	24	1.50	090L	3.31	470	550	50.00	45.5	50.1
DN63V-4DF.E7.29.G	29	2.20	100L	4.65	515	598	62.00	42.5	46.4
DN63V-4DF.E7.34.G	34	3.00	100L	6.18	515	598	69.00	38.7	42.0

# MAXvent owlet

for three phase alternating current, 2 pole

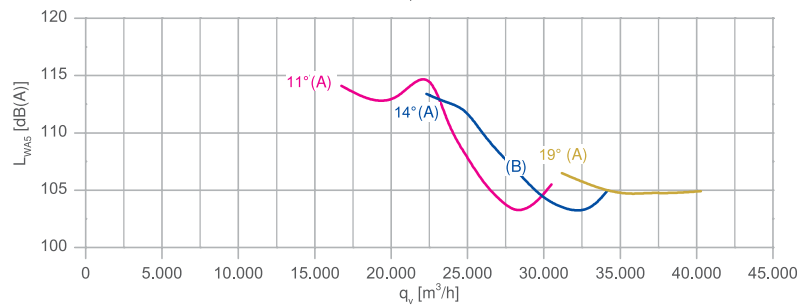
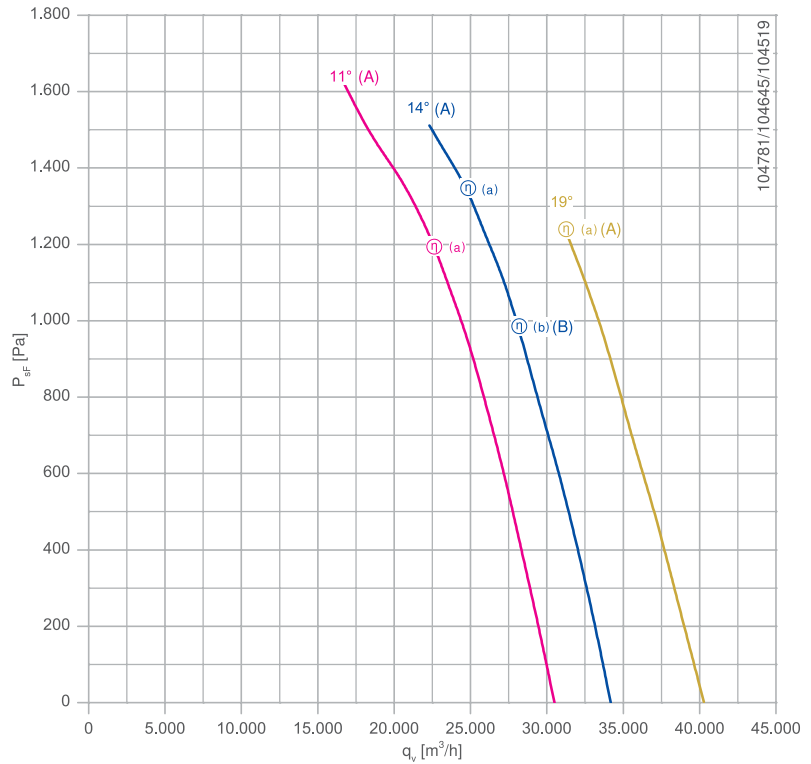
DN71V



## Description

Motor technology: AC  
 Rated voltage  $U_N$ : 3- 400 V\*  
 Rated frequency  $f_N$ : 50 Hz\*  
 Min. permitted conveyor temperature  $t_{R(min)}$ : -20 °C  
 Max. permitted conveyor temperature  $t_{R(max)}$ : 50 °C  
 Number of blades: 9  
 Protection class: IP55  
 Blades: ZAmid, uncoated, Blue  
 Conformity: ErP 2015 ( $N_{target} = 40\%$ ), CE, GOST  
 \* Rated data

## Characteristic curve



- (A) - Performance with big motor
- (B) - Performance with small motor
- Temperature limit point for motor, when duty point is at this limit a customized measurement is recommended
- (a) - Best efficiency with big motor
- (b) - Best efficiency with small motor

Measured in long casing with inlet bell mouth without guard grille in installation type A air flow impeller/motor according to ISO 5801

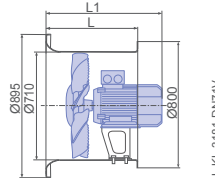
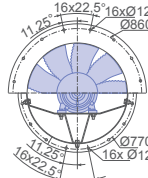
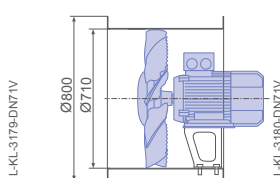
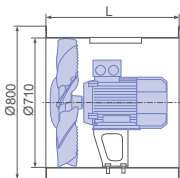
## Designs / Dimensions [mm]

Design F  
Long casing

Design K  
Short casing

Front view - Design S  
Back view - Design F/K/S

Design S - Short casing  
with integrated inlet bell mouth



## Technical data

Type	Blade setting	Rated Power	Motor size	Rated current	Design F Casing length (L)	Design S Fan length (L1)	Design F Weight	Efficiency	Actual efficiency grade
	[°]	[kW]		$I_N$ [A]	[mm]	[mm]	[kg]	$\eta_{statA}$ %	$N_{actual}$ %
DN71V-2DF.I7.11.G	11	15.00	160M	26.90	800	854	142.00	48.8	48.7
DN71V-2DF.I7.14.G	14	15.00	160M	26.90	800	854	142.00	46.3	46.0
DN71V-2DF.K7.14.G	14	18.50	160L	33.00	800	898	151.00	50.3	49.9
DN71V-2DF.L7.19.G	19	22.00	180M	39.50	910	967	264.00	43.5	42.8





# MAXvent owlet

for three phase alternating current, 4 pole

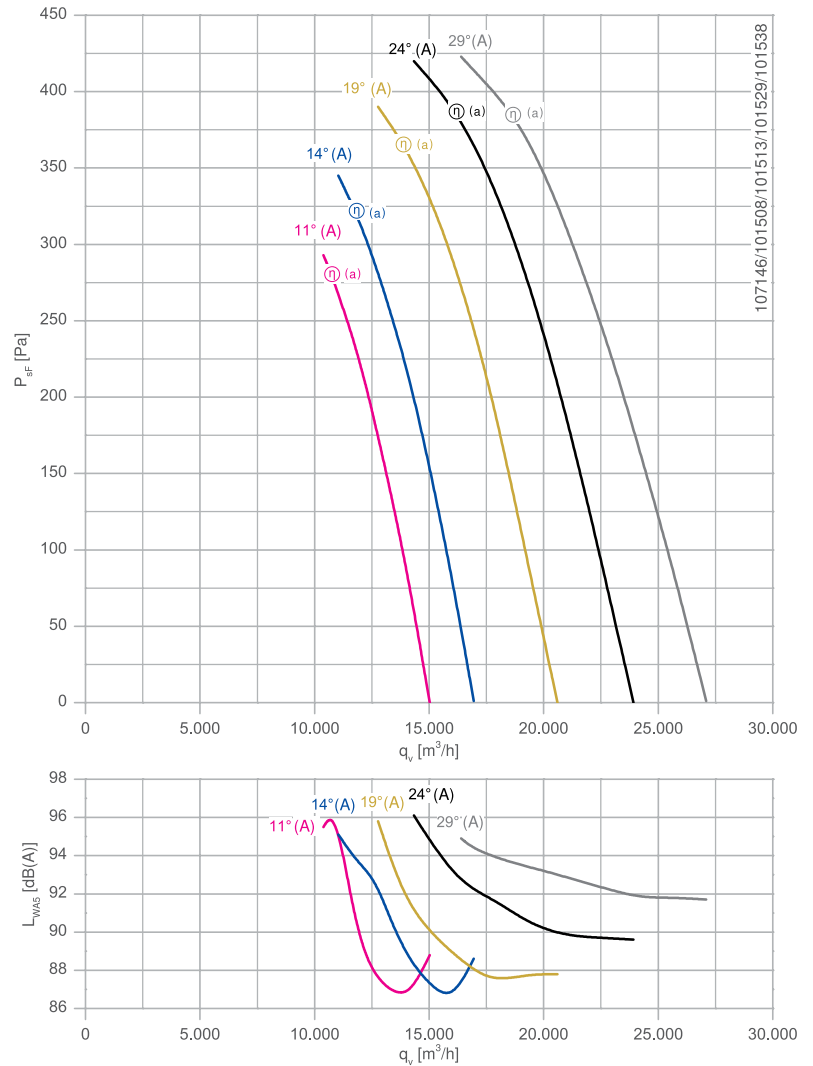
DN71V



## Description

Motor technology: AC  
 Rated voltage  $U_N$ : 3~ 400 V\*  
 Rated frequency  $f_N$ : 50 Hz\*  
 Min. permitted conveyor temperature  $t_{R(min)}$ : -20 °C  
 Max. permitted conveyor temperature  $t_{R(max)}$ : 50 °C  
 Number of blades: 9  
 Protection class: IP55  
 Blades: ZAmid, uncoated, Blue  
 Conformity: ErP 2015 ( $N_{target} = 40\%$ ), CE, GOST  
 \* Rated data

## Characteristic curve

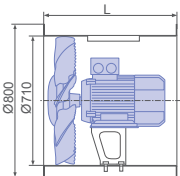


(A) - Performance with big motor  
 (B) - Performance with small motor  
 Temperature limit point for motor, when duty point is at this limit a customized measurement is recommended  
 (a) - Best efficiency with big motor  
 (b) - Best efficiency with small motor

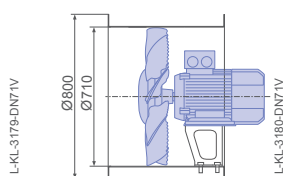
Measured in long casing with inlet bell mouth without guard grille in installation type A air flow impeller/ motor according to ISO 5801

## Designs / Dimensions [mm]

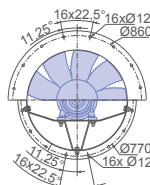
Design F  
Long casing



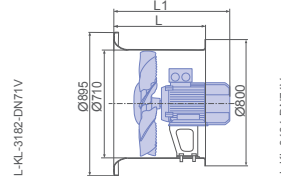
Design K  
Short casing



Front view - Design S  
Back view - Design F/K/S



Design S - Short casing  
with integrated inlet bell mouth



## Technical data

Type	Blade setting	Rated Power	Motor size	Rated current	Design F Casing length (L)	Design S Fan length (L1)	Design F Weight	Efficiency	Actual efficiency grade
	[°]	[kW]		$I_N$ [A]	[mm]	[mm]	[kg]	$\eta_{statA}$ %	$N_{actual}$ %
DN71V-4DF.D7.11.G	11	1.50	090L	3.31	565	588	66.00	48.8	53.6
DN71V-4DF.E7.14.G	14	2.20	100L	4.65	565	638	77.00	44.8	48.7
DN71V-4DF.E7.19.G	19	3.00	100L	6.18	565	638	83.00	44.9	48.1
DN71V-4DF.F7.24.G	24	4.00	112M	8.13	650	747	92.00	43.5	45.9
DN71V-4DF.G7.29.G	29	5.50	132S	10.90	650	775	105.00	40.5	42.4

# MAXvent owlet

for three phase alternating current, 6 pole

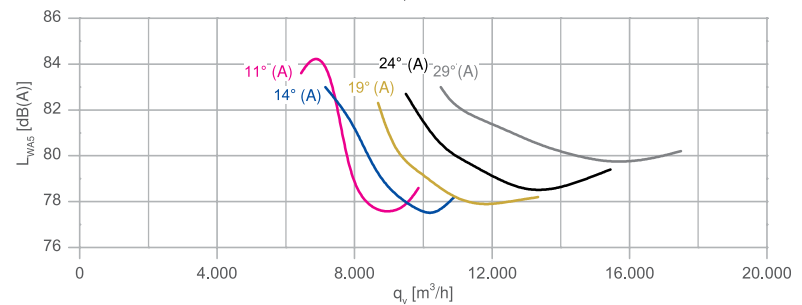
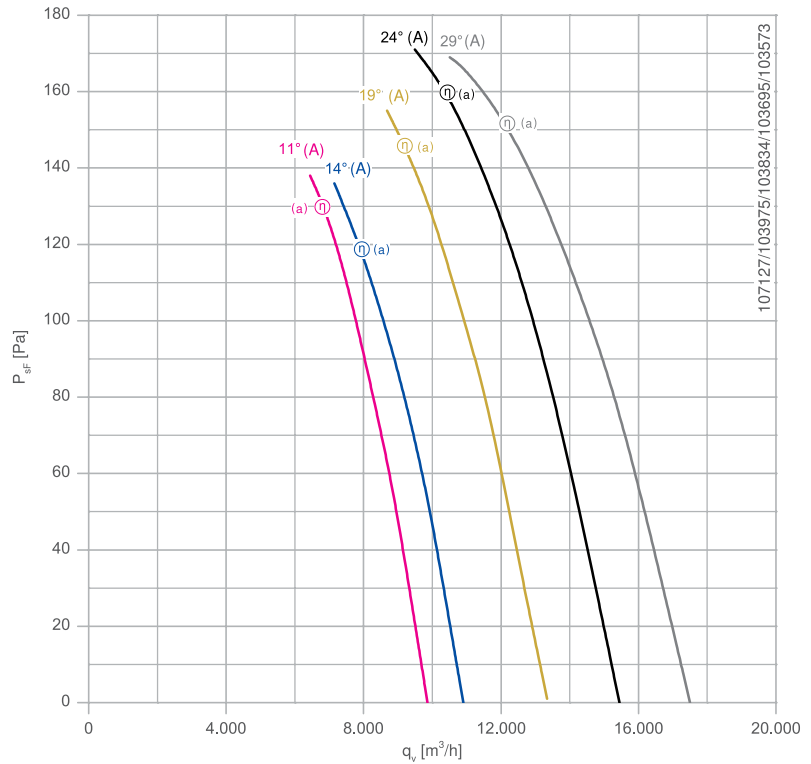
DN71V



## Description

Motor technology: AC  
 Rated voltage  $U_N$ : 3- 400 V\*  
 Rated frequency  $f_N$ : 50 Hz\*  
 Min. permitted conveyor temperature  $t_{R(min)}$ : -20 °C  
 Max. permitted conveyor temperature  $t_{R(max)}$ : 50 °C  
 Number of blades: 9  
 Protection class: IP55  
 Blades: High Performance Composite Material, uncoated, blue/black  
 Conformity: ErP 2015 ( $N_{target} = 40\%$ ), CE, GOST  
 \* Rated data

## Characteristic curve



Measured in long casing with inlet bell mouth without guard grille in installation type A air flow impeller/motor according to ISO 5801

- (A) - Performance with big motor
- (B) - Performance with small motor
- Temperature limit point for motor, when duty point is at this limit a customized measurement is recommended
- (a) - Best efficiency with big motor
- (b) - Best efficiency with small motor

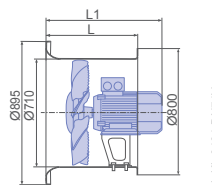
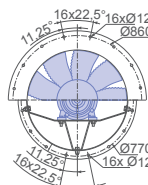
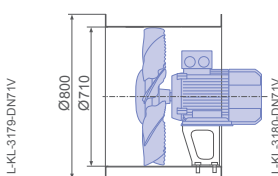
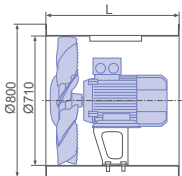
## Designs / Dimensions [mm]

Design F  
Long casing

Design K  
Short casing

Front view - Design S  
Back view - Design F/K/S

Design S - Short casing  
with integrated inlet bell mouth



## Technical data

Type	Blade setting	Rated Power	Motor size	Rated current	Design F Casing length (L)	Design S Fan length (L1)	Design F Weight	Efficiency	Actual efficiency grade
	[°]	[kW]		$I_N$ [A]	[mm]	[mm]	[kg]	$\eta_{statA}$ %	$N_{actual}$ %
DN71V-6DF.B7.11.G	11	0.55	080M	1.70	565	528	57.00	52.0	60.3
DN71V-6DF.B7.14.G	14	0.55	080M	1.70	565	528	57.00	35.9	43.0
DN71V-6DF.C7.19.G	19	0.75	090S	1.98	565	563	62.00	38.5	44.8
DN71V-6DF.D7.24.G	24	1.10	090L	2.82	565	588	65.00	38.6	44.4
DN71V-6DF.E7.29.G	29	1.50	100L	2.10	565	638	74.00	34.9	40.1



# MAXvent owlet

for three phase alternating current, 2 pole

DN80V

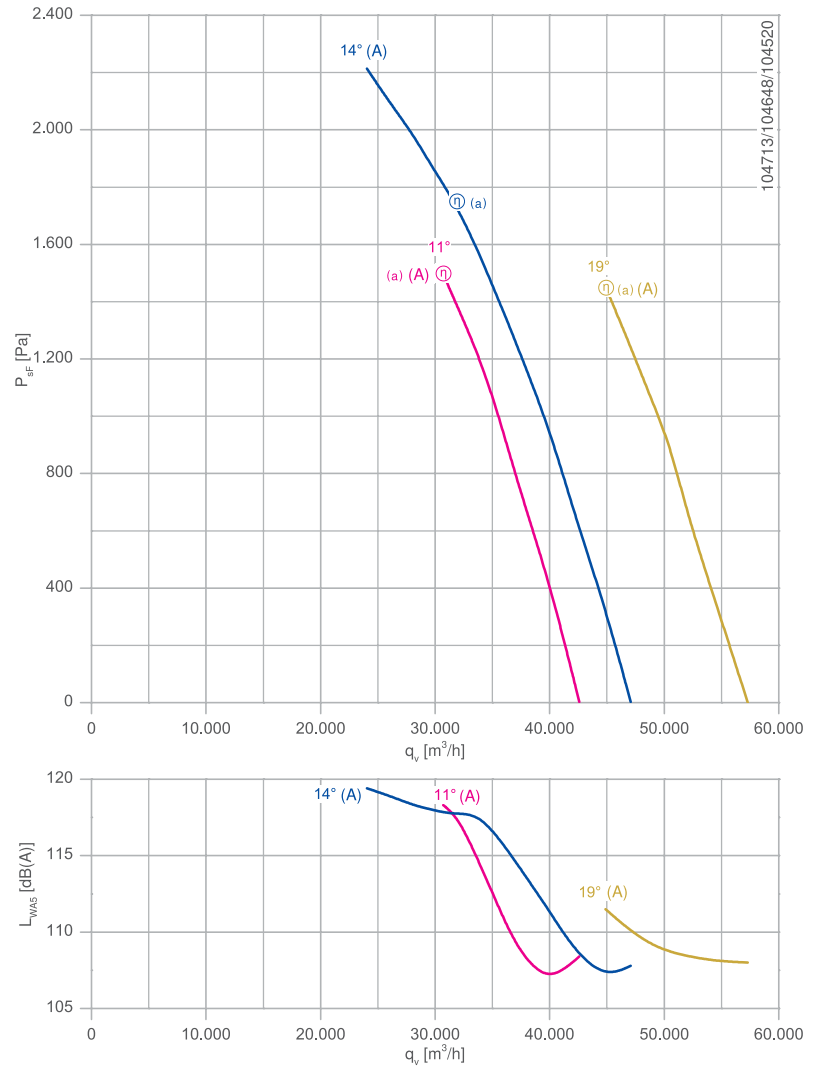


## Description

Motor technology: AC  
 Rated voltage  $U_N$ : 3~ 400 V\*  
 Rated frequency  $f_N$ : 50 Hz\*  
 Min. permitted conveyor temperature  $t_{R(min)}$ : -20 °C  
 Max. permitted conveyor temperature  $t_{R(max)}$ : 50 °C  
 Number of blades: 9  
 Protection class: IP55  
 Blades: ZAmid, uncoated, Blue  
 Conformity: ErP 2015 ( $N_{target} = 40\%$ ), CE, GOST  
 \* Rated data

- (A) - Performance with big motor
- (B) - Performance with small motor
- Temperature limit point for motor, when duty point is at this limit a customized measurement is recommended
- (a) - Best efficiency with big motor
- (b) - Best efficiency with small motor

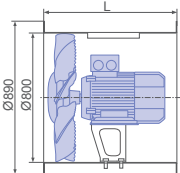
## Characteristic curve



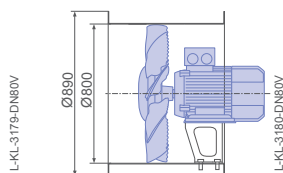
Measured in long casing with inlet bell mouth without guard grille in installation type A air flow impeller/ motor according to ISO 5801

## Designs / Dimensions [mm]

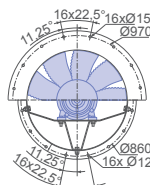
Design F  
Long casing



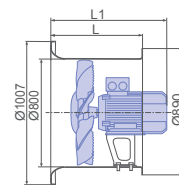
Design K  
Short casing



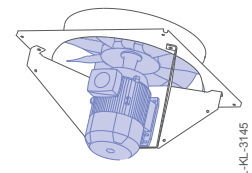
Front view - Design S  
Back view - Design F/K/S



Design S - Short casing  
with integrated inlet bell mouth



Design Q  
Square plate



## Technical data

Type	Blade setting	Rated Power	Motor size	Rated current	Design F Casing length (L)	Design S Fan length (L1)	Design F Weight	Efficiency	Actual efficiency grade
	[°]	[kW]		$I_N$ [A]	[mm]	[mm]	[kg]	$\eta_{statA}$ %	$N_{actual}$ %
DN80V-2DF.L7.11.G	11	22.00	180M	39.50	910	977	280.00	52.2	51.5
DN80V-2DF.N7.14.G	14	30.00	200L	52.30	910	1029	339.00	51.2	50.4
DN80V-2DF.N7.19.G	19	37.00	200L	64.80	910	1029	359.00	44.3	43.2

# MAXvent owlet

for three phase alternating current, 4 pole

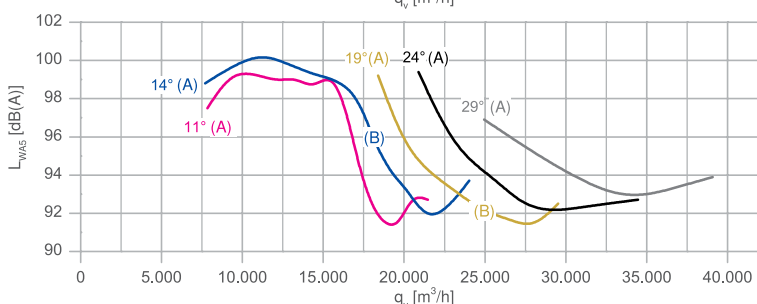
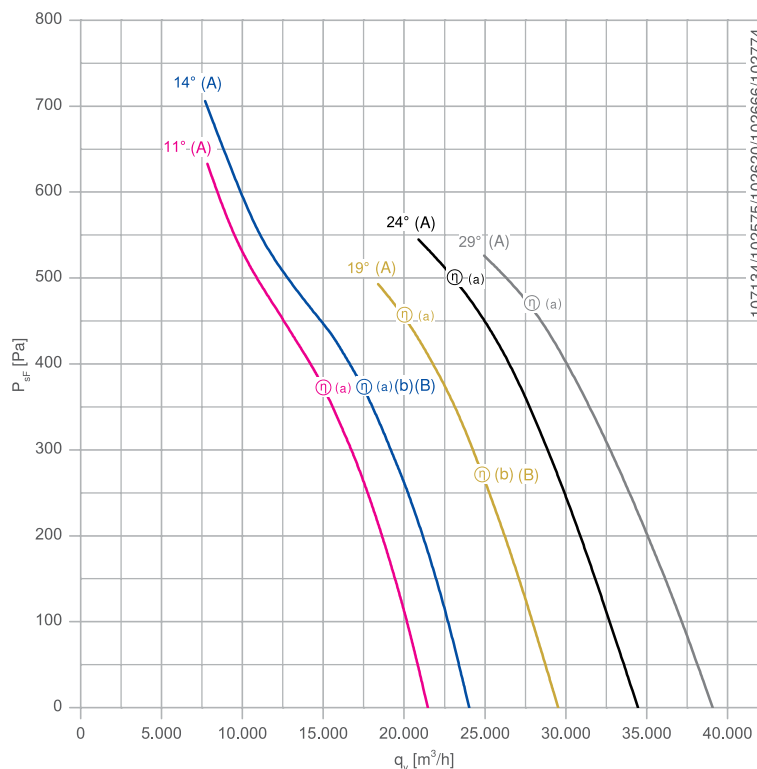
DN80V



## Description

Motor technology: AC  
 Rated voltage  $U_N$ : 3- 400 V\*  
 Rated frequency  $f_N$ : 50 Hz\*  
 Min. permitted conveyor temperature  $t_{R(min)}$ : -20 °C  
 Max. permitted conveyor temperature  $t_{R(max)}$ : 50 °C  
 Number of blades: 9  
 Protection class: IP55  
 Blades: ZAmid, uncoated, Blue  
 Conformity: ErP 2015 ( $N_{target} = 40\%$ ), CE, GOST  
 \* Rated data

## Characteristic curve

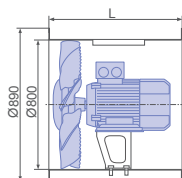


- (A) - Performance with big motor
- (B) - Performance with small motor
- Temperature limit point for motor, when duty point is at this limit a customized measurement is recommended
- (a) - Best efficiency with big motor
- (b) - Best efficiency with small motor

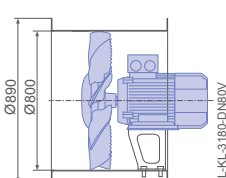
Measured in long casing with inlet bell mouth without guard grille in installation type A air flow impeller/motor according to ISO 5801

## Designs / Dimensions [mm]

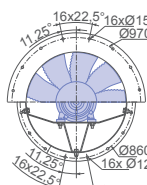
Design F  
Long casing



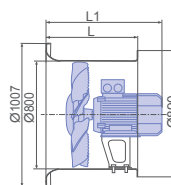
Design K  
Short casing



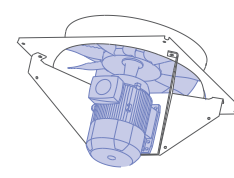
Front view - Design S  
Back view - Design F/K/S



Design S - Short casing  
with integrated inlet bell mouth



Design Q  
Square plate



## Technical data

Type	Blade setting	Rated Power	Motor size	Rated current	Design F Casing length (L)	Design S Fan length (L1)	Design F Weight	Efficiency	Actual efficiency grade
	[°]	[kW]		$I_N$ [A]	[mm]	[mm]	[kg]	$\eta_{statA}$ %	$N_{actual}$ %
DN80V-4DF.E7.11.G	11	3.00	100L	6.18	565	648	94.00	53.0	56.3
DN80V-4DF.E7.14.G	14	3.00	100L	6.18	565	648	94.00	50.4	53.2
DN80V-4DF.F7.14.G	14	4.00	112M	8.13	650	757	104.00	50.4	53.2
DN80V-4DF.F7.19.G	19	4.00	112M	8.13	650	757	104.00	40.6	42.7
DN80V-4DF.G7.19.G	19	5.50	132S	10.90	650	785	116.00	48.0	49.7
DN80V-4DF.H7.24.G	24	7.50	132M	14.50	650	823	128.00	47.6	48.7
DN80V-4DF.H7.29.G	29	7.50	132M	14.50	650	823	128.00	43.7	44.1



# MAXvent owlet

for three phase alternating current, 6 pole

DN80V

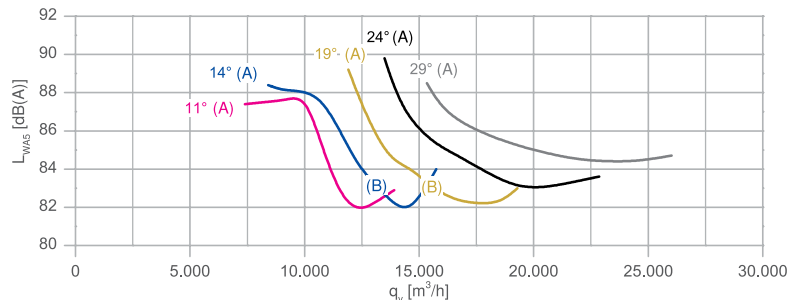
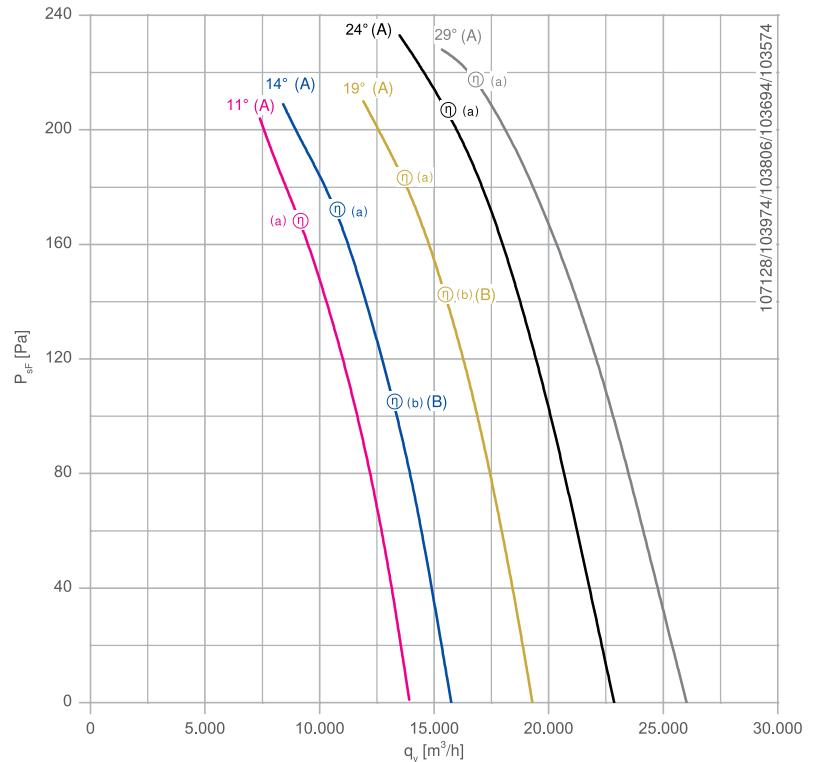


## Description

Motor technology: AC  
 Rated voltage  $U_N$ : 3~ 400 V\*  
 Rated frequency  $f_N$ : 50 Hz\*  
 Min. permitted conveyor temperature  $t_{R(min)}$ : -20 °C  
 Max. permitted conveyor temperature  $t_{R(max)}$ : 50 °C  
 Number of blades: 9  
 Protection class: IP55  
 Blades: High Performance Composite Material, uncoated, blue/black  
 Conformity: ErP 2015 ( $N_{target} = 40\%$ ), CE, GOST  
 \* Rated data

(A) - Performance with big motor  
 (B) - Performance with small motor  
 Temperature limit point for motor, when duty point is at this limit a customized measurement is recommended  
 (a) - Best efficiency with big motor  
 (b) - Best efficiency with small motor

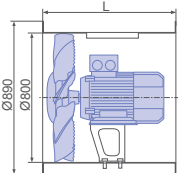
## Characteristic curve



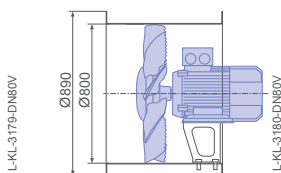
Measured in long casing with inlet bell mouth without guard grille in installation type A air flow impeller/ motor according to ISO 5801

## Designs / Dimensions [mm]

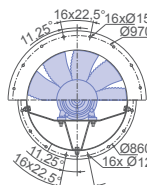
Design F  
Long casing



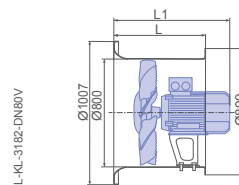
Design K  
Short casing



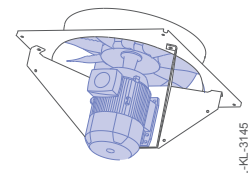
Front view - Design S  
Back view - Design F/K/S



Design S - Short casing  
with integrated inlet bell mouth



Design Q  
Square plate



## Technical data

Type	Blade setting	Rated Power	Motor size	Rated current	Design F Casing length (L)	Design S Fan length (L1)	Design F Weight	Efficiency	Actual efficiency grade
	[°]	[kW]		$I_N$ [A]	[mm]	[mm]	[kg]	$\eta_{statA}$ %	$N_{actual}$ %
DN80V-6DF.C7.11.G	11	0.75	090S	1.98	565	575	72.00	54.0	61.0
DN80V-6DF.C7.14.G	14	0.75	090S	1.98	565	575	72.00	39.7	46.0
DN80V-6DF.D7.14.G	14	1.10	090L	2.82	565	600	75.00	44.8	50.7
DN80V-6DF.D7.19.G	19	1.10	090L	2.82	565	600	75.00	41.9	47.1
DN80V-6DF.E7.19.G	19	1.50	100L	2.10	565	648	84.00	44.6	49.6
DN80V-6DF.F7.24.G	24	2.20	112M	2.96	650	757	95.00	43.8	48.2
DN80V-6DF.F7.29.G	29	2.20	112M	2.96	650	757	95.00	40.2	43.9

# MAXvent owlet

for three phase alternating current, 4 pole

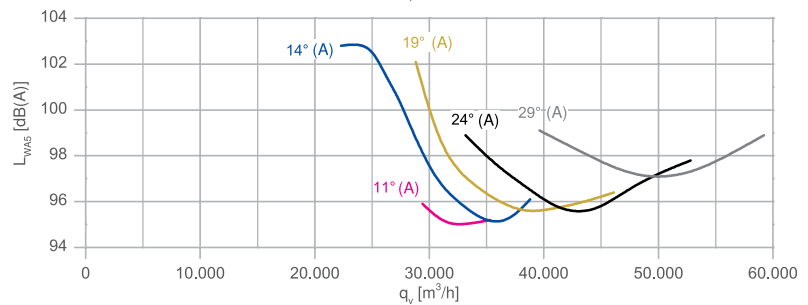
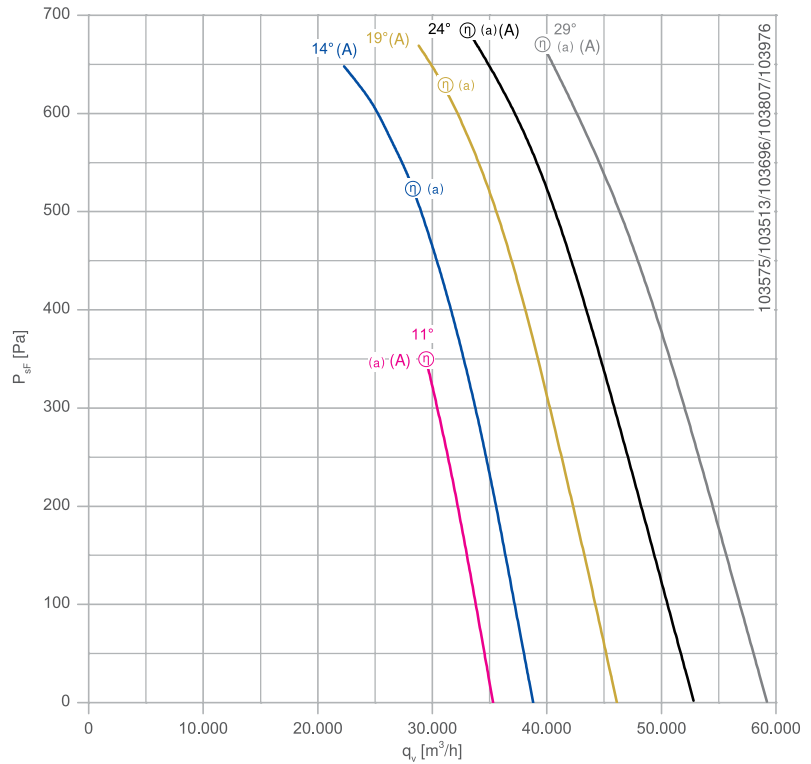
DN90V



## Description

Motor technology: AC  
 Rated voltage  $U_N$ : 3- 400 V\*  
 Rated frequency  $f_N$ : 50 Hz\*  
 Min. permitted conveyor temperature  $t_{R(min)}$ : -20 °C  
 Max. permitted conveyor temperature  $t_{R(max)}$ : 50 °C  
 Number of blades: 9  
 Protection class: IP55  
 Blades: ZAmid, uncoated, Blue  
 Conformity: ErP 2015 ( $N_{target} = 40\%$ ), CE, GOST  
 \* Rated data

## Characteristic curve



- (A) - Performance with big motor
- (B) - Performance with small motor
- Temperature limit point for motor, when duty point is at this limit a customized measurement is recommended
- (a) - Best efficiency with big motor
- (b) - Best efficiency with small motor

Measured in long casing with inlet bell mouth without guard grille in installation type A air flow impeller/ motor according to ISO 5801

## Designs / Dimensions [mm]

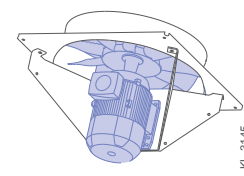
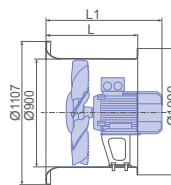
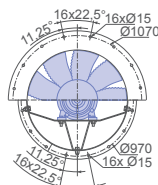
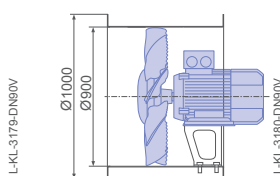
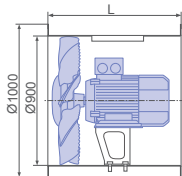
Design F  
Long casing

Design K  
Short casing

Front view - Design S  
Back view - Design F/K/S

Design S - Short casing  
with integrated inlet bell mouth

Design Q  
Square plate



## Technical data

Type	Blade setting	Rated Power	Motor size	Rated current	Design F Casing length (L)	Design S Fan length (L1)	Design F Weight	Efficiency	Actual efficiency grade
	[°]	[kW]		$I_N$ [A]	[mm]	[mm]	[kg]	$\eta_{statA}$ %	$N_{actual}$ %
DN90V-4DF.G7.11.G	11	5.50	132S	10.90	650	785	127.00	47.0	48.3
DN90V-4DF.H7.14.G	14	7.50	132M	14.50	650	823	139.00	51.8	52.4
DN90V-4DF.I7.19.G	19	11.00	160M	21.00	875	849	238.00	50.3	50.3
DN90V-4DF.K7.24.G	24	15.00	160L	28.40	875	893	248.00	46.3	46.1
DN90V-4DF.K7.29.G	29	15.00	160L	28.40	875	893	248.00	43.4	43.0



# MAXvent owlet

for three phase alternating current, 6 pole

DN90V

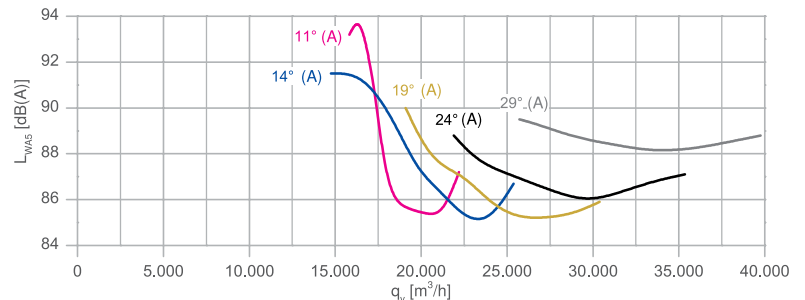
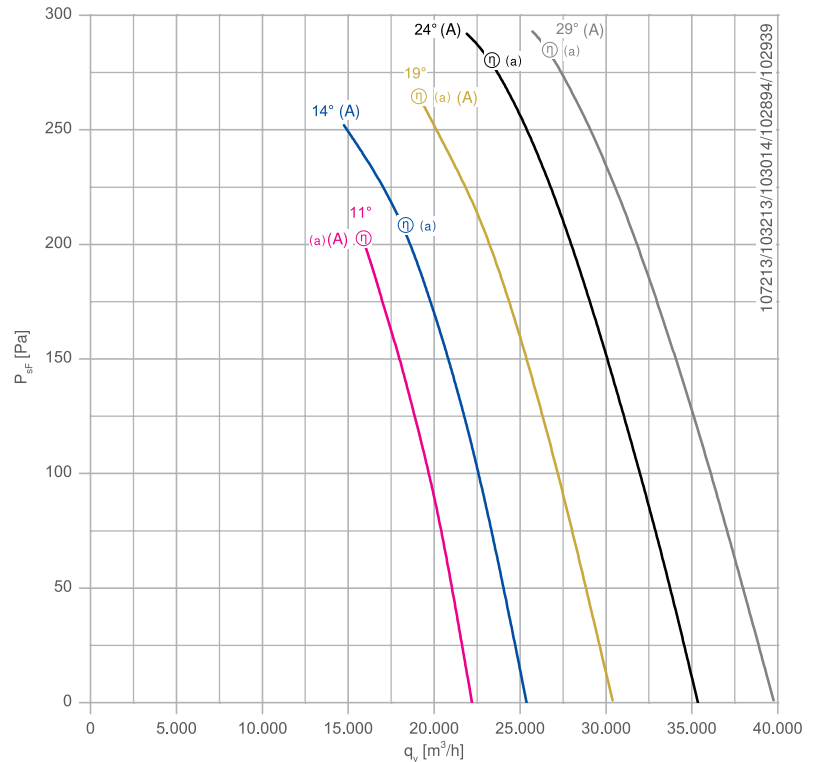


## Description

Motor technology: AC  
 Rated voltage  $U_N$ : 3~ 400 V\*  
 Rated frequency  $f_N$ : 50 Hz\*  
 Min. permitted conveyor temperature  $t_{R(min)}$ : -20 °C  
 Max. permitted conveyor temperature  $t_{R(max)}$ : 50 °C  
 Number of blades: 9  
 Protection class: IP55  
 Blades: High Performance Composite Material, uncoated, blue/black  
 Conformity: ErP 2015 ( $N_{target} = 40\%$ ), CE, GOST  
 \* Rated data

(A) - Performance with big motor  
 (B) - Performance with small motor  
 Temperature limit point for motor, when duty point is at this limit a customized measurement is recommended  
 (a) - Best efficiency with big motor  
 (b) - Best efficiency with small motor

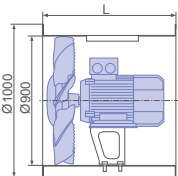
## Characteristic curve



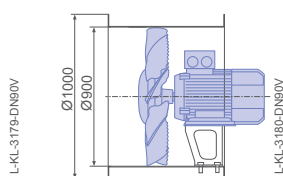
Measured in long casing with inlet bell mouth without guard grille in installation type A air flow impeller/ motor according to ISO 5801

## Designs / Dimensions [mm]

Design F  
Long casing



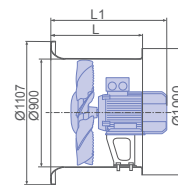
Design K  
Short casing



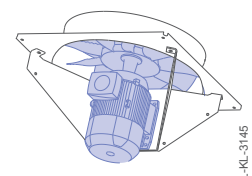
Front view - Design S  
Back view - Design F/K/S



Design S - Short casing  
with integrated inlet bell mouth



Design Q  
Square plate



## Technical data

Type	Blade setting	Rated Power	Motor size	Rated current	Design F Casing length (L)	Design S Fan length (L1)	Design F Weight	Efficiency	Actual efficiency grade
	[°]	[kW]		$I_N$ [A]	[mm]	[mm]	[kg]	$\eta_{statA}$ %	$N_{actual}$ %
DN90V-6DF.E7.11.G	11	1.50	100L	3.62	580	648	94.00	60.6	66.2
DN90V-6DF.F7.14.G	14	2.20	112M	5.11	650	757	105.00	45.1	49.0
DN90V-6DF.G7.19.G	19	3.00	132S	6.84	650	785	117.00	43.2	46.2
DN90V-6DF.H7.24.G	24	4.00	132M	8.98	650	823	126.00	44.0	46.3
DN90V-6DF.H7.29.G	29	5.50	132M	12.00	650	823	137.00	41.9	43.7

# MAXvent owlet

for three phase alternating current, 4 pole

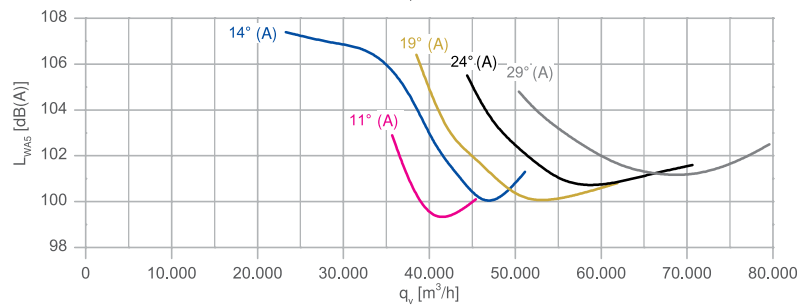
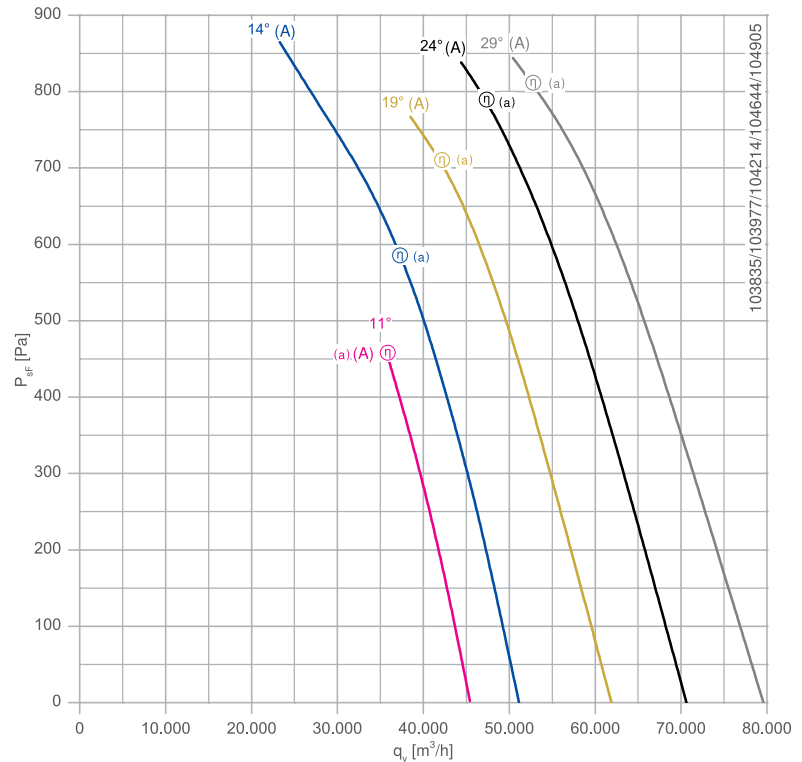
DN10V



## Description

Motor technology: AC  
 Rated voltage  $U_N$ : 3- 400 V\*  
 Rated frequency  $f_N$ : 50 Hz\*  
 Min. permitted conveyor temperature  $t_{R(min)}$ : -20 °C  
 Max. permitted conveyor temperature  $t_{R(max)}$ : 50 °C  
 Number of blades: 9  
 Protection class: IP55  
 Blades: ZAmid, uncoated, Blue  
 Conformity: ErP 2015 ( $N_{target} = 40\%$ ), CE, GOST  
 \* Rated data

## Characteristic curve

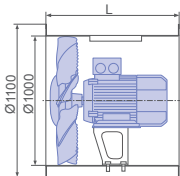


- (A) - Performance with big motor
- (B) - Performance with small motor
- Temperature limit point for motor, when duty point is at this limit a customized measurement is recommended
- (a) - Best efficiency with big motor
- (b) - Best efficiency with small motor

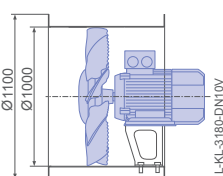
Measured in long casing with inlet bell mouth without guard grille in installation type A air flow impeller/motor according to ISO 5801

## Designs / Dimensions [mm]

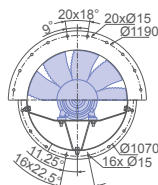
Design F  
Long casing



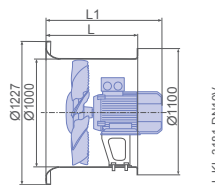
Design K  
Short casing



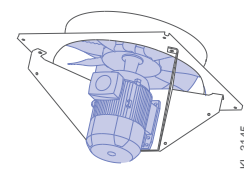
Front view - Design S  
Back view - Design F/K/S



Design S - Short casing  
with integrated inlet bell mouth



Design Q  
Square plate



## Technical data

Type	Blade setting	Rated Power	Motor size	Rated current	Design F Casing length (L)	Design S Fan length (L1)	Design F Weight	Efficiency	Actual efficiency grade
	[°]	[kW]		$I_N$ [A]	[mm]	[mm]	[kg]	$\eta_{statA}$ %	$N_{actual}$ %
DN10V-4DF.H7.11.G	11	7.50	132M	14.50	650	788	145.00	52.4	52.8
DN10V-4DF.I7.14.G	14	11.00	160M	21.00	910	874	249.00	54.2	54.2
DN10V-4DF.K7.19.G	19	15.00	160L	28.40	910	918	260.00	51.9	51.6
DN10V-4DF.L7.24.G	24	18.50	180M	34.00	910	1002	301.00	49.9	49.4
DN10V-4DF.N7.29.G	29	30.00	200L	53.90	910	1054	391.00	46.6	45.9





# MAXvent owlet

for three phase alternating current, 6 pole

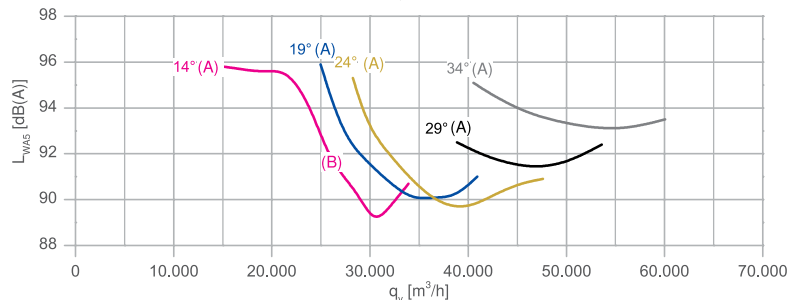
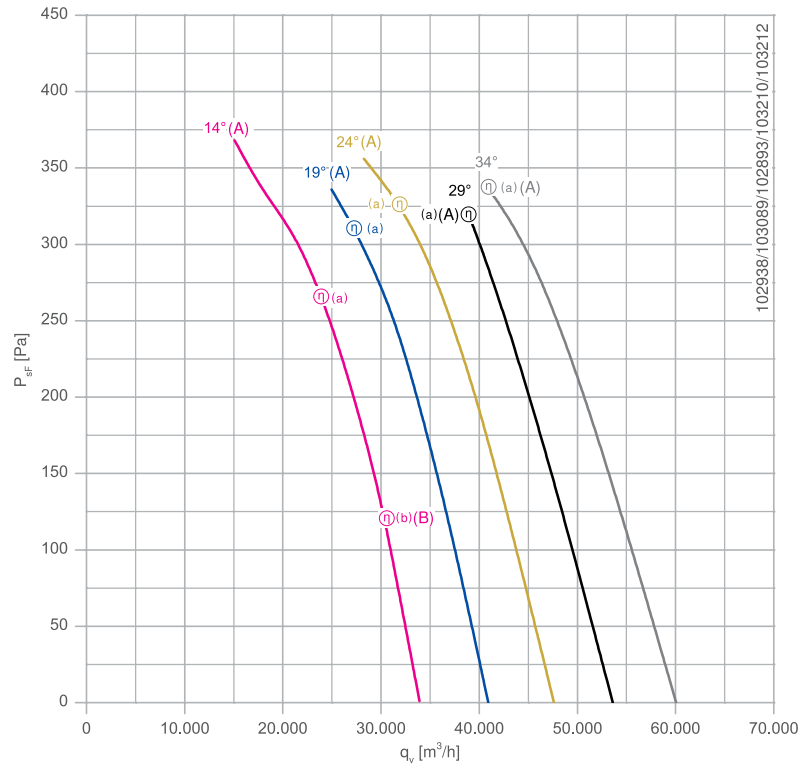
DN10V



## Description

Motor technology: AC  
 Rated voltage  $U_N$ : 3~ 400 V\*  
 Rated frequency  $f_N$ : 50 Hz\*  
 Min. permitted conveyor temperature  $t_{R(min)}$ : -20 °C  
 Max. permitted conveyor temperature  $t_{R(max)}$ : 50 °C  
 Number of blades: 9  
 Protection class: IP55  
 Blades: ZAmid, uncoated, Blue  
 Conformity: ErP 2015 ( $N_{target} = 40\%$ ), CE, GOST  
 \* Rated data

## Characteristic curve

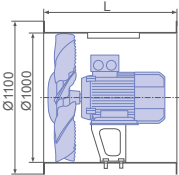


(A) - Performance with big motor  
 (B) - Performance with small motor  
 Temperature limit point for motor, when duty point is at this limit a customized measurement is recommended  
 (a) - Best efficiency with big motor  
 (b) - Best efficiency with small motor

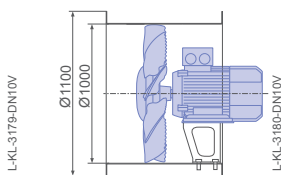
Measured in long casing with inlet bell mouth without guard grille in installation type A air flow impeller/ motor according to ISO 5801

## Designs / Dimensions [mm]

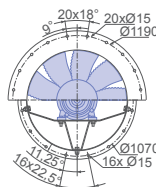
Design F  
Long casing



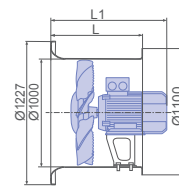
Design K  
Short casing



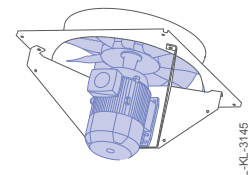
Front view - Design S  
Back view - Design F/K/S



Design S - Short casing  
with integrated inlet bell mouth



Design Q  
Square plate



## Technical data

Type	Blade setting	Rated Power	Motor size	Rated current	Design F Casing length (L)	Design S Fan length (L1)	Design F Weight	Efficiency	Actual efficiency grade
	[°]	[kW]		$I_N$ [A]	[mm]	[mm]	[kg]	$\eta_{statA}$ %	$N_{actual}$ %
DN10V-6DF.F7.14.G	14	2.20	112M	5.11	650	722	112.00	37.9	41.5
DN10V-6DF.G7.14.G	14	3.00	132S	6.84	650	750	125.00	50.9	53.7
DN10V-6DF.H7.19.G	19	4.00	132M	8.98	650	788	134.00	49.0	51.0
DN10V-6DF.H7.24.G	24	5.50	132M	12.00	650	788	145.00	46.2	47.5
DN10V-6DF.I7.29.G	29	7.50	160M	15.90	910	874	263.00	43.1	43.7
DN10V-6DF.K7.34.G	34	11.00	160L	22.70	910	918	279.00	39.9	40.0

# MAXvent owlet

for three phase alternating current, 8 pole

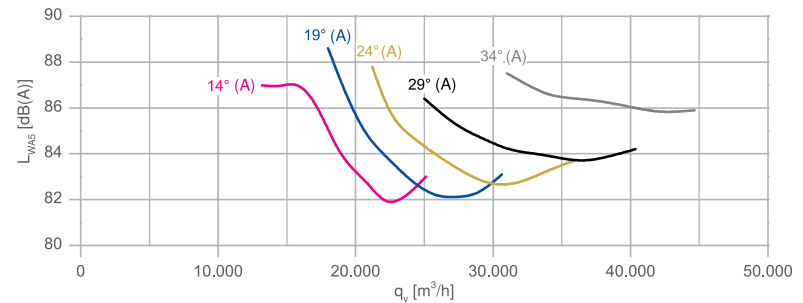
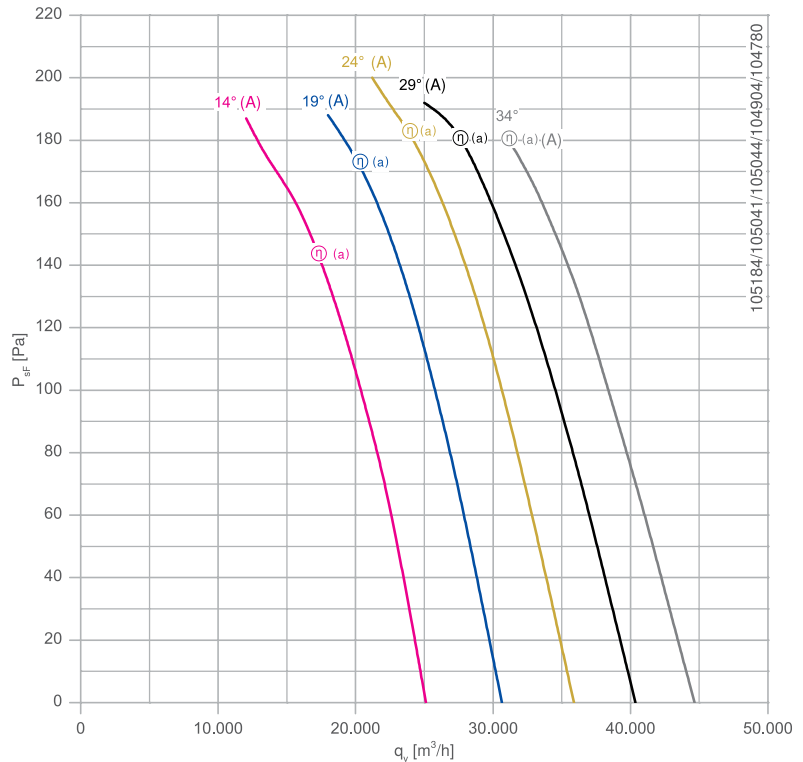
DN10V



## Description

Motor technology: AC  
 Rated voltage  $U_N$ : 3- 400 V\*  
 Rated frequency  $f_N$ : 50 Hz\*  
 Min. permitted conveyor temperature  $t_{R(min)}$ : -20 °C  
 Max. permitted conveyor temperature  $t_{R(max)}$ : 50 °C  
 Number of blades: 9  
 Protection class: IP55  
 Blades: High Performance Composite Material, uncoated, blue/black  
 Conformity: ErP 2015 ( $N_{target} = 40\%$ ), CE, GOST  
 \* Rated data

## Characteristic curve



- (A) - Performance with big motor
- (B) - Performance with small motor
- Temperature limit point for motor, when duty point is at this limit a customized measurement is recommended
- (a) - Best efficiency with big motor
- (b) - Best efficiency with small motor

Measured in long casing with inlet bell mouth without guard grille in installation type A air flow impeller/motor according to ISO 5801

## Designs / Dimensions [mm]

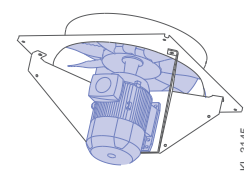
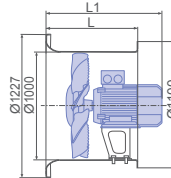
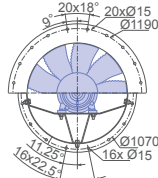
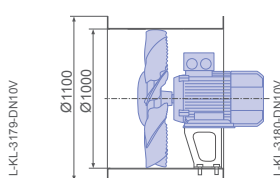
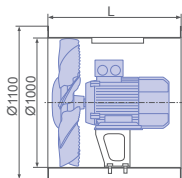
Design F  
Long casing

Design K  
Short casing

Front view - Design S  
Back view - Design F/K/S

Design S - Short casing  
with integrated inlet bell mouth

Design Q  
Square plate



## Technical data

Type	Blade setting	Rated Power	Motor size	Rated current	Design F Casing length (L)	Design S Fan length (L1)	Design F Weight	Efficiency	Actual efficiency grade
	[°]	[kW]		$I_N$ [A]	[mm]	[mm]	[kg]	$\eta_{statA}$ %	$N_{actual}$ %
DN10V-8DF.F7.14.G	14	1.50	112M	4.20	650	722	108.00	45.4	50.5
DN10V-8DF.F7.19.G	19	1.50	112M	4.20	650	722	108.00	37.6	42.1
DN10V-8DF.G7.24.G	24	2.20	132S	3.31	650	788	120.00	45.8	49.4
DN10V-8DF.H7.29.G	29	3.00	132M	4.22	650	874	137.00	42.5	45.6
DN10V-8DF.I7.34.G	34	4.00	160M	5.45	910	750	243.00	38.2	40.6



# MAXvent owlet

for three phase alternating current, 4 pole

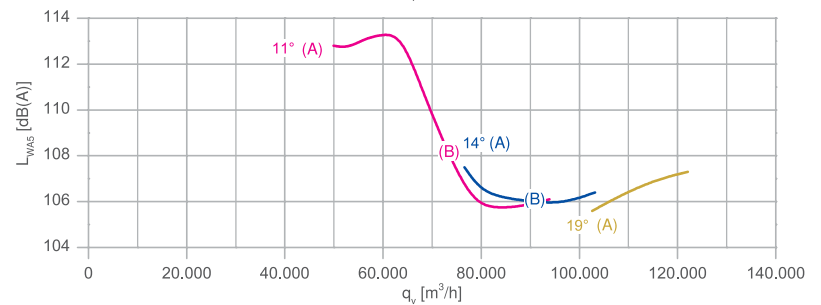
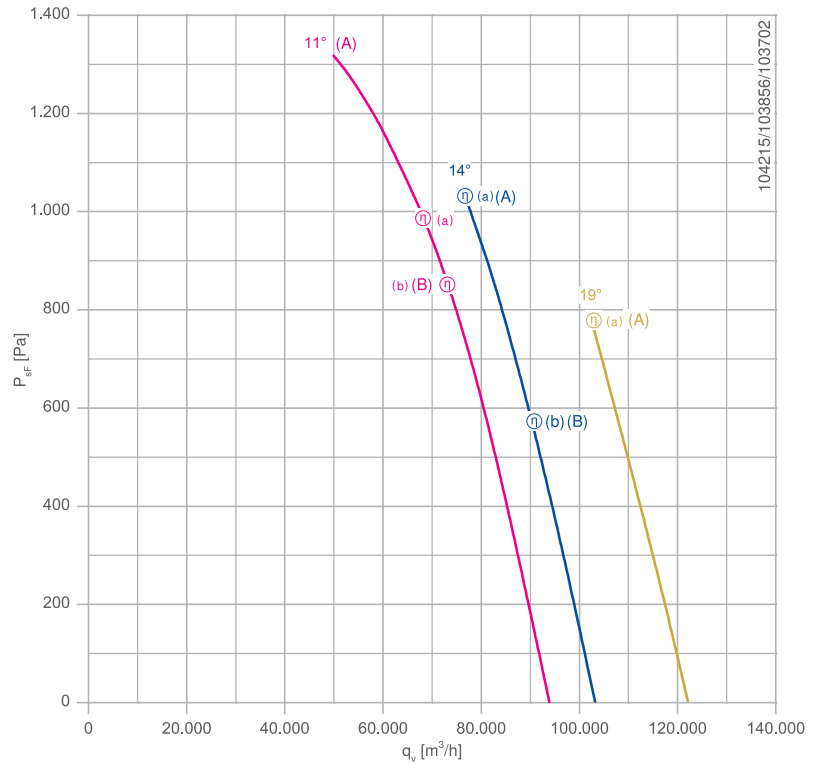
DN12V



## Description

Motor technology: AC  
 Rated voltage  $U_N$ : 3~ 400 V\*  
 Rated frequency  $f_N$ : 50 Hz\*  
 Min. permitted conveyor temperature  $t_{R(min)}$ : -20 °C  
 Max. permitted conveyor temperature  $t_{R(max)}$ : 50 °C  
 Number of blades: 9  
 Protection class: IP55  
 Blades: ZAmid, uncoated, Blue  
 Conformity: ErP 2015 ( $N_{target} = 40\%$ ), CE, GOST  
 \* Rated data

## Characteristic curve

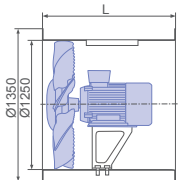


Measured in long casing with inlet bell mouth without guard grille in installation type A air flow impeller/ motor according to ISO 5801

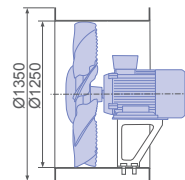
- (A) - Performance with big motor
- (B) - Performance with small motor
- Temperature limit point for motor, when duty point is at this limit a customized measurement is recommended
- (a) - Best efficiency with big motor
- (b) - Best efficiency with small motor

## Designs / Dimensions [mm]

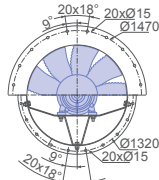
Design F  
Long casing



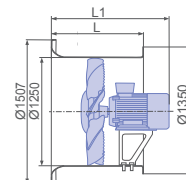
Design K  
Short casing



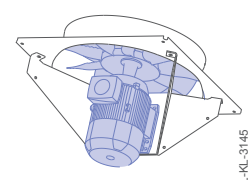
Front view - Design S  
Back view - Design F/K/S



Design S - Short casing  
with integrated inlet bell mouth



Design Q  
Square plate



## Technical data

Type	Blade setting	Rated Power	Motor size	Rated current	Design F Casing length (L)	Design S Fan length (L1)	Design F Weight	Efficiency	Actual efficiency grade
	[°]	[kW]		$I_N$ [A]	[mm]	[mm]	[kg]	$\eta_{statA}$ %	$N_{actual}$ %
DN12V-4DF.N7.11.G	11	30.00	200L	53.90	1000	1129	442.00	53.5	52.6
DN12V-4DF.P7.11.G	11	37.00	225S	66.20	1000	1144	484.00	54.6	53.7
DN12V-4DF.N7.14.G	14	30.00	200L	53.90	1000	1129	442.00	43.5	42.6
DN12V-4DF.P7.14.G	14	37.00	225S	66.20	1000	1144	484.00	53.4	52.3
DN12V-4DF.R7.19.G	19	45.00	225M	80.10	1000	1169	515.00	44.0	42.9

# MAXvent owlet

for three phase alternating current, 6 pole

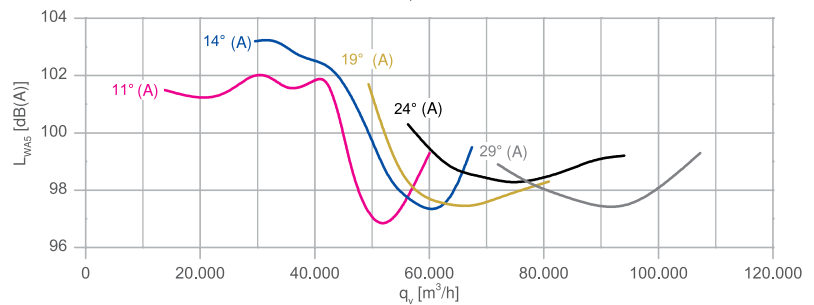
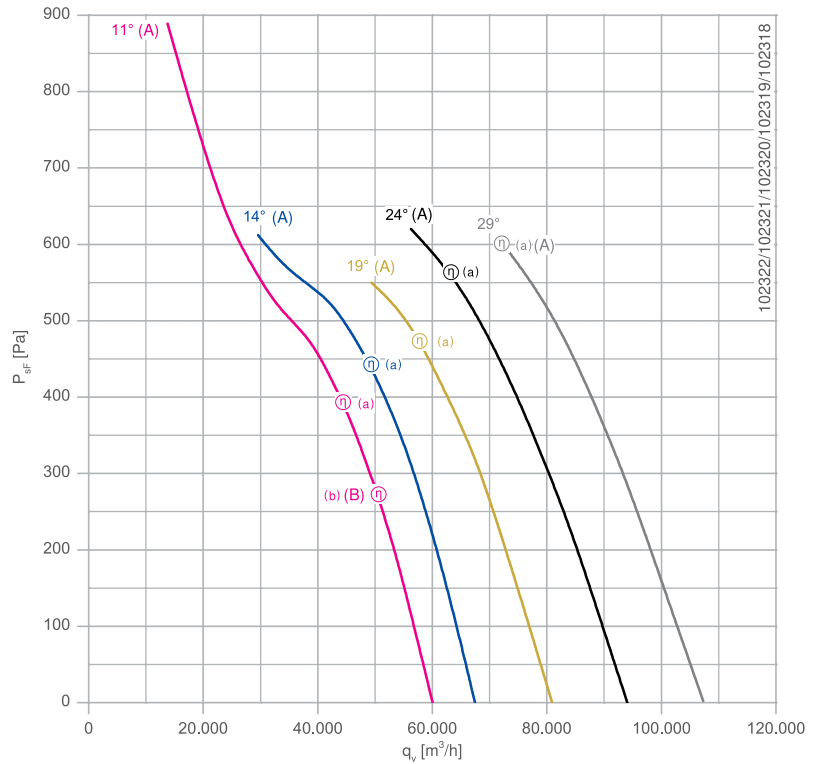
DN12V



## Description

Motor technology: AC  
 Rated voltage  $U_N$ : 3- 400 V\*  
 Rated frequency  $f_N$ : 50 Hz\*  
 Min. permitted conveyor temperature  $t_{R(min)}$ : -20 °C  
 Max. permitted conveyor temperature  $t_{R(max)}$ : 50 °C  
 Number of blades: 9  
 Protection class: IP55  
 Blades: ZAmid, uncoated, Blue  
 Conformity: ErP 2015 ( $N_{target} = 40\%$ ), CE, GOST  
 \* Rated data

## Characteristic curve

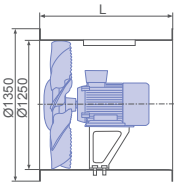


- (A) - Performance with big motor
- (B) - Performance with small motor
- Temperature limit point for motor, when duty point is at this limit a customized measurement is recommended
- (a) - Best efficiency with big motor
- (b) - Best efficiency with small motor

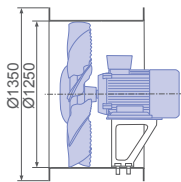
Measured in long casing with inlet bell mouth without guard grille in installation type A air flow impeller/motor according to ISO 5801

## Designs / Dimensions [mm]

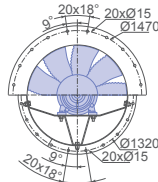
Design F  
Long casing



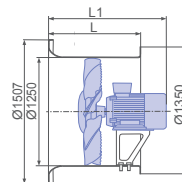
Design K  
Short casing



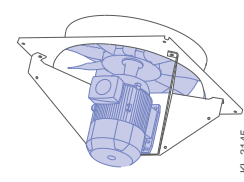
Front view - Design S  
Back view - Design F/K/S



Design S - Short casing  
with integrated inlet bell mouth



Design Q  
Square plate



## Technical data

Type	Blade setting	Rated Power	Motor size	Rated current	Design F Casing length (L)	Design S Fan length (L1)	Design F Weight	Efficiency	Actual efficiency grade
	[°]	[kW]		$I_N$ [A]	[mm]	[mm]	[kg]	$\eta_{statA}$ %	$N_{actual}$ %
DN12V-6DF.I7.11.G	11	7.50	160M	15.90	830	959	298.00	46.0	46.5
DN12V-6DF.K7.11.G	11	11.00	160L	22.70	830	1003	314.00	50.3	50.4
DN12V-6DF.K7.14.G	14	11.00	160L	22.70	830	1003	314.00	52.0	52.0
DN12V-6DF.M7.19.G	19	15.00	180L	29.40	1000	1064	366.00	48.7	48.4
DN12V-6DF.N7.24.G	24	18.50	200L	36.50	1000	1129	407.00	47.1	46.6
DN12V-6DF.R7.29.G	29	30.00	225M	56.02	1000	1169	491.00	45.8	45.1



# MAXvent owlet

for three phase alternating current, 8 pole

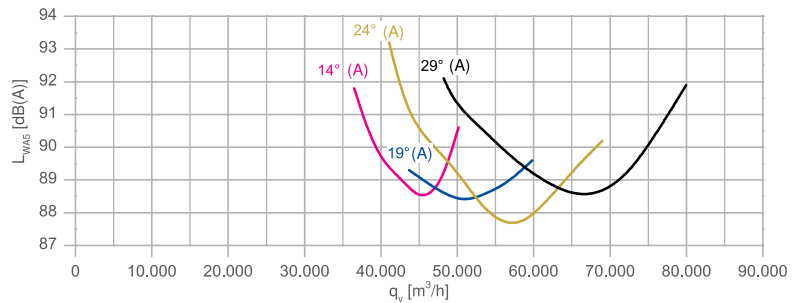
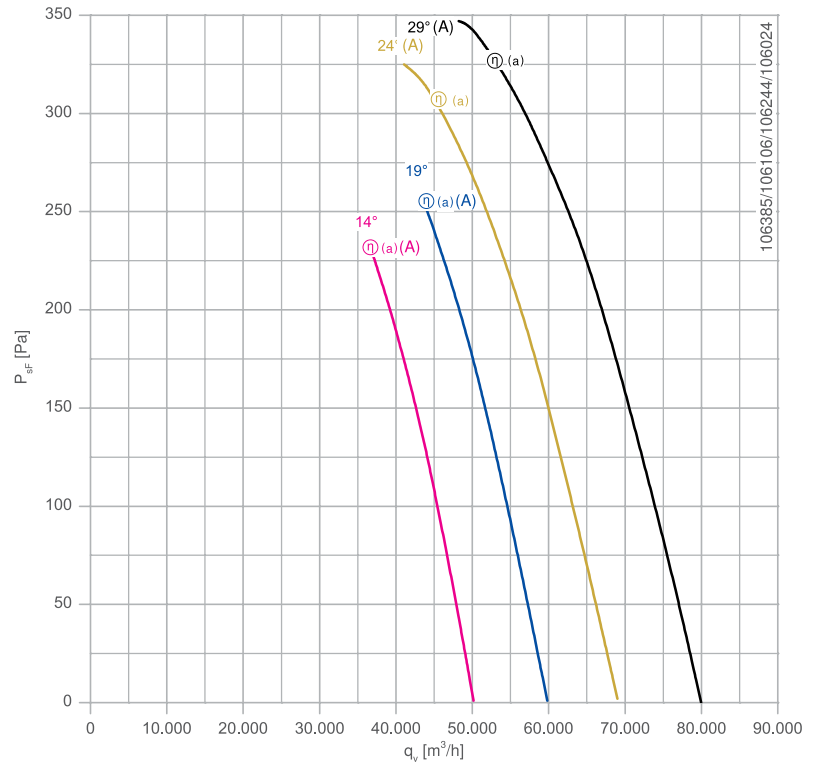
DN12V



## Description

Motor technology: AC  
 Rated voltage  $U_N$ : 3~ 400 V\*  
 Rated frequency  $f_N$ : 50 Hz\*  
 Min. permitted conveyor temperature  $t_{R(min)}$ : -20 °C  
 Max. permitted conveyor temperature  $t_{R(max)}$ : 50 °C  
 Number of blades: 9  
 Protection class: IP55  
 Blades: ZAmid, uncoated, Blue  
 Conformity: ErP 2015 ( $N_{target} = 40\%$ ), CE, GOST  
 \* Rated data

## Characteristic curve

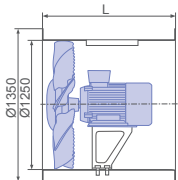


(A) - Performance with big motor  
 (B) - Performance with small motor  
 Temperature limit point for motor, when duty point is at this limit a customized measurement is recommended  
 (a) - Best efficiency with big motor  
 (b) - Best efficiency with small motor

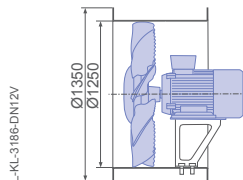
Measured in long casing with inlet bell mouth without guard grille in installation type A air flow impeller/ motor according to ISO 5801

## Designs / Dimensions [mm]

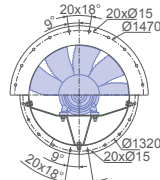
Design F  
Long casing



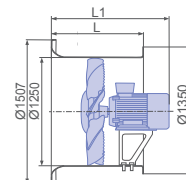
Design K  
Short casing



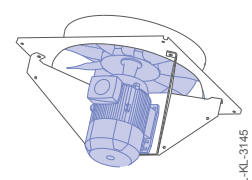
Front view - Design S  
Back view - Design F/K/S



Design S - Short casing  
with integrated inlet bell mouth



Design Q  
Square plate



## Technical data

Type	Blade setting	Rated Power	Motor size	Rated current	Design F Casing length (L)	Design S Fan length (L1)	Design F Weight	Efficiency	Actual efficiency grade
	[°]	[kW]		$I_N$ [A]	[mm]	[mm]	[kg]	$\eta_{statA}$ %	$N_{actual}$ %
DN12V-8DF.I7.14.G	14	4.00	160M	9.39	830	959	274.00	49.4	51.4
DN12V-8DF.I7.19.G	19	5.50	160M	12.50	830	959	297.00	46.6	47.7
DN12V-8DF.K7.24.G	24	7.50	160L	16.80	830	1003	302.00	45.4	45.8
DN12V-8DF.M7.29.G	29	11.00	180L	23.80	1000	1064	392.00	43.3	43.3

# MAXvent owlet

for three phase alternating current, 6 pole

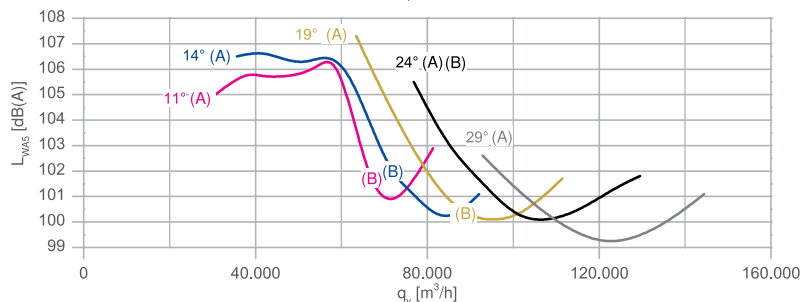
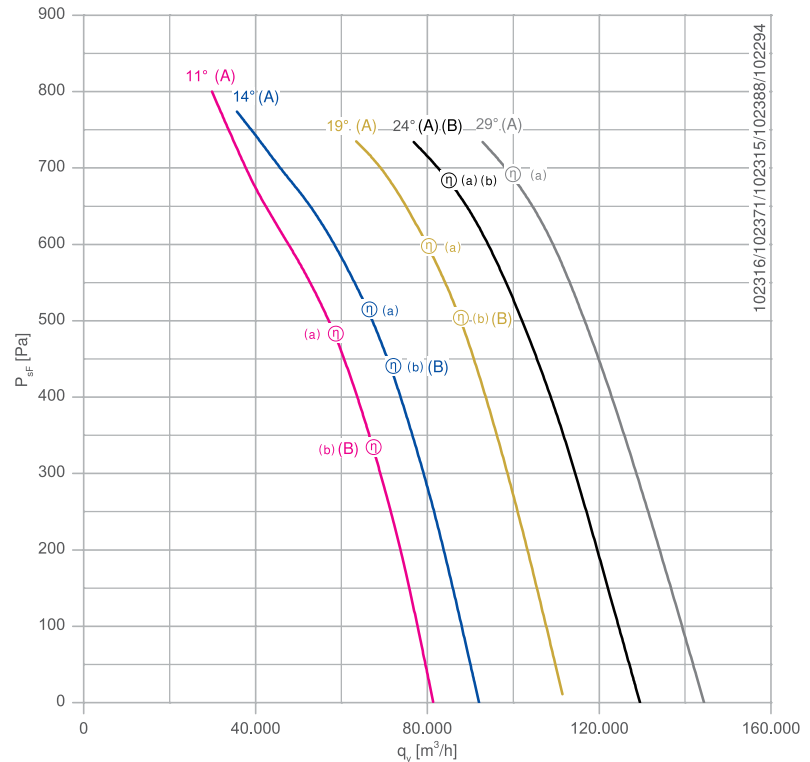
DN14V



## Description

Motor technology: AC  
 Rated voltage  $U_N$ : 3- 400 V\*  
 Rated frequency  $f_N$ : 50 Hz\*  
 Min. permitted conveyor temperature  $t_{R(min)}$ : -20 °C  
 Max. permitted conveyor temperature  $t_{R(max)}$ : 50 °C  
 Number of blades: 9  
 Protection class: IP55  
 Blades: ZAmid, uncoated, Blue  
 Conformity: ErP 2015 ( $N_{target} = 40\%$ ), CE, GOST  
 \* Rated data

## Characteristic curve

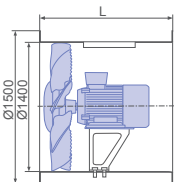


- (A) - Performance with big motor
- (B) - Performance with small motor
- Temperature limit point for motor, when duty point is at this limit a customized measurement is recommended
- (a) - Best efficiency with big motor
- (b) - Best efficiency with small motor

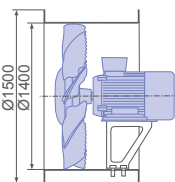
Measured in long casing with inlet bell mouth without guard grille in installation type A air flow impeller/motor according to ISO 5801

## Designs / Dimensions [mm]

Design F  
Long casing



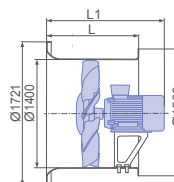
Design K  
Short casing



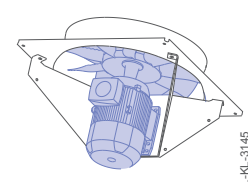
Front view - Design S  
Back view - Design F/K/S



Design S - Short casing  
with integrated inlet bell mouth



Design Q  
Square plate



## Technical data

Type	Blade setting	Rated Power	Motor size	Rated current	Design F Casing length (L)	Design S Fan length (L1)	Design F Weight	Efficiency	Actual efficiency grade
	[°]	[kW]		$I_N$ [A]	[mm]	[mm]	[kg]	$\eta_{statA}$ %	$N_{actual}$ %
DN14V-6DF.K7.11.G	11	11.00	160L	22.70	900	1053	368.00	51.1	51.0
DN14V-6DF.M7.11.G	11	15.00	180L	29.40	900	1114	403.00	54.6	54.3
DN14V-6DF.M7.14.G	14	15.00	180L	29.40	900	1114	403.00	53.2	52.9
DN14V-6DF.N7.14.G	14	18.50	200L	36.50	1000	1179	458.00	54.1	53.7
DN14V-6DF.N7.19.G	19	22.00	200L	43.10	1000	1179	473.00	51.1	50.5
DN14V-6DF.R7.19.G	19	30.00	225M	56.20	1000	1219	543.00	52.3	51.6
DN14V-6DF.R7.24.G	24	30.00	225M	56.20	1000	1219	543.00	48.2	47.3
DN14V-6DF.S7.29.G	29	37.00	250M	67.30	1060	1218	637.00	46.2	45.1

# MAXvent owlet

for three phase alternating current, 8 pole

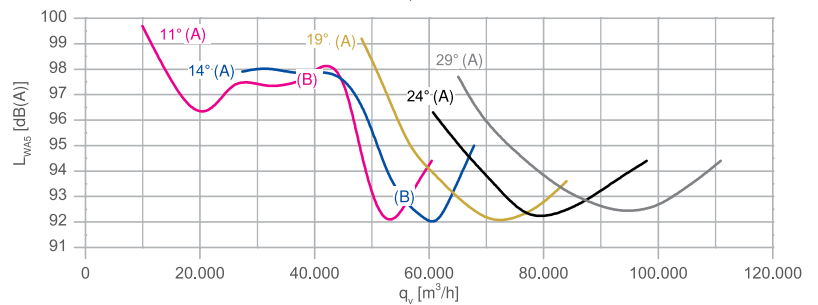
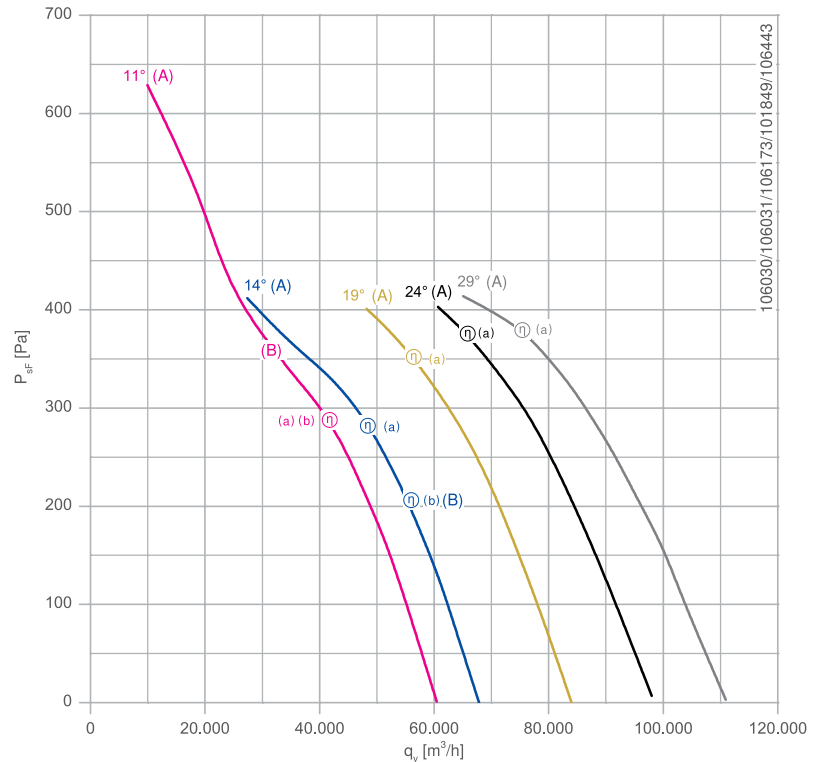
DN14V



## Description

Motor technology: AC  
 Rated voltage  $U_N$ : 3~ 400 V\*  
 Rated frequency  $f_N$ : 50 Hz\*  
 Min. permitted conveyor temperature  $t_{R(min)}$ : -20 °C  
 Max. permitted conveyor temperature  $t_{R(max)}$ : 50 °C  
 Number of blades: 9  
 Protection class: IP55  
 Blades: ZAmid, uncoated, Blue  
 Conformity: ErP 2015 ( $N_{target} = 40\%$ ), CE, GOST  
 \* Rated data

## Characteristic curve

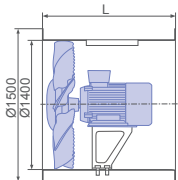


- (A) - Performance with big motor
- (B) - Performance with small motor
- Temperature limit point for motor, when duty point is at this limit a customized measurement is recommended
- (a) - Best efficiency with big motor
- (b) - Best efficiency with small motor

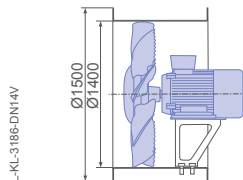
Measured in long casing with inlet bell mouth without guard grille in installation type A air flow impeller/ motor according to ISO 5801

## Designs / Dimensions [mm]

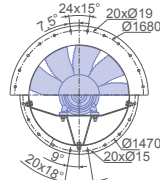
Design F  
Long casing



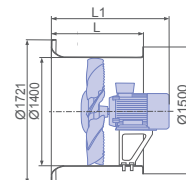
Design K  
Short casing



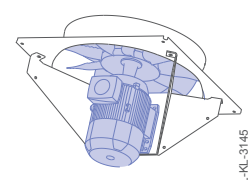
Front view - Design S  
Back view - Design F/K/S



Design S - Short casing  
with integrated inlet bell mouth



Design Q  
Square plate



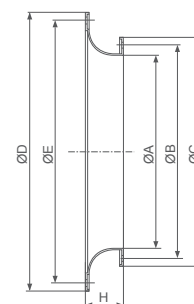
## Technical data

Type	Blade setting	Rated Power	Motor size	Rated current	Design F Casing length (L)	Design S Fan length (L1)	Design F Weight	Efficiency	Actual efficiency grade
	[°]	[kW]		$I_N$ [A]	[mm]	[mm]	[kg]	$\eta_{statA}$ %	$N_{actual}$ %
DN14V-8DF.I7.11.G	11	5.50	160M	12.50	900	1009	355.00	53.2	54.5
DN14V-8DF.K7.11.G	11	7.50	160L	16.80	900	1053	361.00	53.2	54.5
DN14V-8DF.I7.14.G	14	5.50	160M	12.50	900	1009	355.00	49.3	50.4
DN14V-8DF.K7.14.G	14	7.50	160L	16.80	900	1053	361.00	52.8	53.7
DN14V-8DF.M7.19.G	19	11.00	180L	23.80	900	1114	434.00	50.9	50.9
DN14V-8DF.N7.24.G	24	15.00	200L	31.70	1000	1179	456.00	49.0	48.8
DN14V-8DF.P7.29.G	29	18.50	225S	38.70	1000	1194	501.00	45.5	45.1

# System components

## Inlet ring

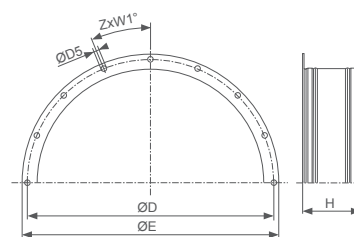
Inlet ring								
Corrosion protection G	Corrosion protection H	Type	ØA [mm]	ØB [mm]	ØC [mm]	ØD [mm]	ØE [mm]	H [mm]
Article no.	Article no.							
00500107	00500356	DN31	315	355	372	425	395	65
00500354	00500357	DN35	355	395	425	470	450	75
00500108	00500358	DN40	400	450	470	530	500	75
00500355	00500359	DN45	450	500	530	590	560	110
00500109	00500360	DN50	500	560	590	650	620	110
00500110	00500361	DN56	560	650	620	720	690	110
00500111	00500362	DN63	630	690	720	800	770	110
00500112	00500363	DN71	710	770	800	890	860	115
00500113	00500364	DN80	800	860	890	1000	970	125
00500114	00500365	DN90	900	970	1000	1100	1070	125
00500115	00500366	DN10	1000	1070	1100	1220	1190	150
00500116	00500367	DN12	1250	1320	1350	1500	1470	180
00500117	00500368	DN14	1400	1470	1500	1720	1680	230



L-KL-3169

## Flexible connector

Flexible connector							
Corrosion protection G	Corrosion protection H	Type	ØB [mm]	ØE [mm]	ØD5	Z x W1°	H [mm]
Article no.	Article no.						
00500424	00500437	DN31	372	355	Ø10	8 x 45°	125
00500425	00500438	DN35	425	395	Ø10	8 x 45°	125
00500426	00500439	DN40	470	450	Ø12	8 x 45°	125
00500427	00500440	DN45	530	500	Ø12	8 x 45°	125
00500428	00500441	DN50	590	560	Ø12	12 x 30°	125
00500429	00500442	DN56	650	620	Ø12	12 x 30°	150
00500430	00500443	DN63	720	690	Ø12	12 x 30°	150
00500431	00500444	DN71	800	770	Ø12	16 x 22.5°	150
00500432	00500445	DN80	890	860	Ø12	16 x 22.5°	150
00500433	00500446	DN90	1000	970	Ø15	16 x 22.5°	180
00500434	00500447	DN10	1100	1070	Ø15	16 x 22.5°	180
00500435	00500448	DN12	1350	1320	Ø15	20 x 18°	180
00500436	00500449	DN14	1500	1470	Ø15	20 x 18°	180



L-LKL-3167

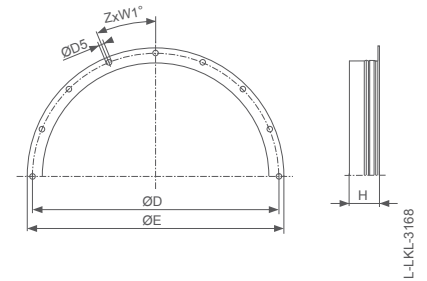




# System components

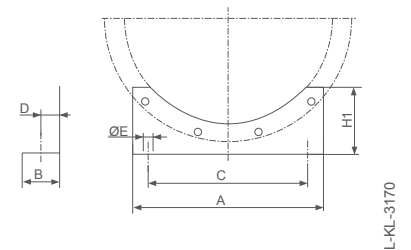
## Matching flange

Matching flange							
Corrosion protection G Article no.	Corrosion protection H Article no.	Type	ØE [mm]	ØD [mm]	ØD5	Z x W1°	H [mm]
00500118	00500340	DN31	372	355	Ø10	8 x 45°	35
00500093	00500341	DN35	425	395	Ø10	8 x 45°	35
00500119	00500342	DN40	470	450	Ø12	8 x 45°	35
00500339	00500343	DN45	530	500	Ø12	8 x 45°	35
00500120	00500344	DN50	590	560	Ø12	12 x 30°	35
00500121	00500345	DN56	650	620	Ø12	12 x 30°	35
00500122	00500346	DN63	720	690	Ø12	12 x 30°	50
00500123	00500347	DN71	800	770	Ø12	16 x 22.5°	50
00500124	00500348	DN80	890	860	Ø12	16 x 22.5°	50
00500125	00500349	DN90	1000	970	Ø15	16 x 22.5°	50
00500126	00500350	DN10	1100	1070	Ø15	16 x 22.5°	50
00500127	00500351	DN12	1350	1320	Ø15	20 x 18°	50
00500128	00500352	DN14	1500	1470	Ø15	20 x 18°	50



## Mounting feet

Mounting feet									
Corrosion protection G Article no.	Corrosion protection H Article no.	Type	A [mm]	B [mm]	C [mm]	D [mm]	ØE [mm]	H [mm]	H <sub>1</sub> [mm]
00500129	00500370	DN31	200	40	150	20	Ø7	200	50
00500094	00500371	DN35	200	40	150	20	Ø7	230	70
00500130	00500372	DN40	330	40	280	20	Ø7	250	80
00500369	00500373	DN45	400	40	350	20	Ø7	280	125
00500131	00500374	DN50	440	60	390	40	Ø12	315	140
00500132	00500375	DN56	480	60	430	40	Ø12	355	155
00500133	00500376	DN63	530	60	480	40	Ø12	400	175
00500134	00500377	DN71	530	60	480	40	Ø18	450	160
00500135	00500378	DN80	530	80	480	50	Ø18	500	160
00500136	00500379	DN90	600	80	550	50	Ø18	560	180
00500137	00500380	DN10	660	80	610	50	Ø18	630	215
00500138	00500381	DN12	1000	80	950	50	Ø18	710	270
00500139	00500382	DN14	1100	80	1050	50	Ø18	800	310

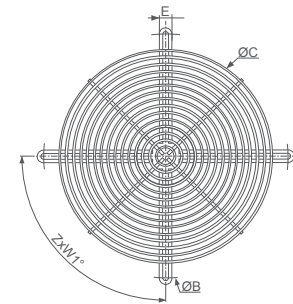


# System components

## Guard grille

Impeller side

		Guard grille					
Mesh grille 10 mm	Mesh grille 20 mm		ØB [mm]	ØC [mm]	ØD [mm]	E [mm]	Z x W1°
Article no.	Article no.						
00500140	00500540	DN31	Ø355	Ø310	Ø375	8	4 x 90°
00500141	00500541	DN35	Ø395	Ø370	Ø415	8	4 x 90°
00500142	00500542	DN40	Ø450	Ø410	Ø470	8	4 x 90°
00500143	00500543	DN45	Ø500	Ø470	Ø520	8	4 x 90°
00500144	00500296	DN50	Ø560	Ø510	Ø580	8	4 x 90°
00500145	00500544	DN56	Ø620	Ø570	Ø640	8	4 x 90°
00500146	00500545	DN63	Ø690	Ø650	Ø710	8	4 x 90°
00500147	00500546	DN71	Ø770	Ø710	Ø795	9	8 x 45°
00500148	00500547	DN80	Ø860	Ø810	Ø885	9	8 x 45°
00500149	00500548	DN90	Ø970	Ø910	Ø1010	13	8 x 45°
00500150	00500549	DN10	Ø1070	Ø1010	Ø1100	13	16 x 22.5°
	00500151	DN10+B	Ø1190	Ø1130	Ø1220	13	20 x 18°
00500152	00500550	DN12	Ø1320	Ø1250	Ø1350	13	20 x 18°
00500153	00500551	DN14	Ø1470	Ø1410	Ø1500	13	20 x 18°
	00500154	DN14+B	Ø1680	Ø1610	Ø1710	13	24 x 15°

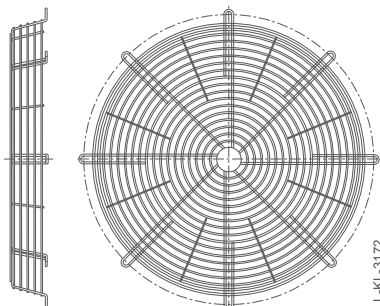


B = Inlet bell mouth

L-KL-3171

Motor side

Please consult us



L-KL-3172



- Information
- MAXvent owlet
- System components**
- Control technology
- General notes



# Frequency inverter

## 3~ Icontrol, universal controller with display



The Icontrol frequency inverters are provided preferably for the requirement-based and energy saving speed control of internal rotor motors (IEC standard motors).

All ZIEHL-ABEGG sensors can be combined with the universal frequency inverters. The actual value measured at the sensor is compared with the setpoint. This results in activation of the connected fan.

It can be controlled to air flow or differential pressure especially for application in air conditioning. Simple start-up is possible with the selectable operating modes available in the device.

Processes in other application areas can also be controlled. The frequency inverters can be used flexibly.

Versions with integrated main switch are available optionally.

### Input for sensors or speed setting



Setting of the desired speed through device or by external default, e.g. 0-10 V



Connection of pressure sensors (refrigeration), e.g. Sensors MBG, measuring range 0 to 30 / 0 to 50 bar



Connection of temperature sensors, e.g. Sensors TF, device measuring range -27 to +75 °C, e.g. Sensor MTG, sensor measuring range -10 to +120 °C



Connection of differential pressure sensors (Air conditioning), e.g. Sensors DSG, measuring range 0 to 6000 Pa, acquisition of volume flows up to 65000 m³

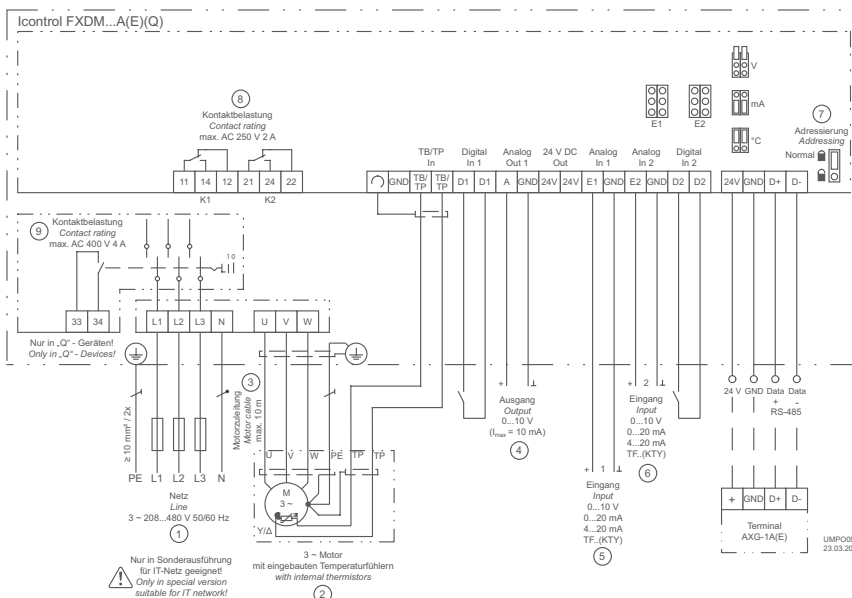


Connection of air velocity sensors, e.g. Sensors MAL, measuring range 0-1 / 0-10 m/s



Connection of additional sensors, e.g. combination sensors, CO<sub>2</sub>, humidity, sensor signal 0-10 V / 0-20 mA / 4-20 mA

### Connections



- ① Mains
- ② 3~ motor with integral temperature sensors
- ③ Motor supply line
- ④ Output
- ⑤ Input 1
- ⑥ Input 2
- ⑦ Addressing
- ⑧ Max. contact rating
- ⑨ max. contact rating

## Equipment/characteristics:

### Multifunctional 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 rotational speed, limit the maximum rotational speed, inverting and limits. Setting, e.g. for 2-stage mode

### 2 analogue inputs for sensors or set-point 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 Sensor 1, average calculation, set-point input, set-point 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. e.g. output signal proportional control, output signal proportional input signal, invertible, 10 V fixed 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 thermal contacts (TB or TP).

### 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.

## Technical data

- Mains voltage: 3~ 208 - 480 V 50/60 Hz
- Maximum output voltage approx. Mains or input voltage
- Maximum output frequency: 150 Hz
- Adjustable clock frequency (> 6 kHz with power reduction): 6, 8, 10, 16 kHz
- Maximum ambient temperature: + 40 °C (up to + 55 °C with derating possible)
- Integrated power supply for sensors: + 24 V, max. 120 mA
- Analogue output A1: 0 - 10 V,  $I_{max}$  10 mA (short-circuit proof)
- Max. loading of the relay K1 + K2: max. AC 250 V / 2 A
- Interference emission: compliant with EN 61000-6-3 (residential environment)
- Interference immunity: compliant with EN 61000-6-2 (Industrial environment)

## Optional equipment

The Icontrol frequency inverters are also available with an integrated main switch.

### Type designation FXDM...AQ

The integrated main switch has the 0 and I (On/Off) switch positions. In the position, the switch can be locked with a padlock. An integrated auxiliary contact can be used to report the switch position. Consequently, when the alarm relay is dropping, whether the switch was actuated is detected, for instance.

### Add-on module for frequency inverter

- IO-add-on module Type Z-Module-B, Part no. 380052  
If the inputs and outputs do not suffice, additional inputs and outputs can be created with the Z-Module-B. They can also be programmed:
  - 1 analogue input
  - 1 analogue output
  - 3 digital inputs
  - 2 digital outputs (relay)
- LON®Add-on module Type Z-Module-L, Part no. 380086  
For integration into a LON®bus system using a twisted pair

# Frequency inverter

## 3~ Icontrol, universal controller with display

### Icontrol without main switch

3~ 208...480V 50/60Hz

Type	Article no.	Rated voltage	Rated current	Rated power	Rated temperature	Max. line fuse	Max. heat dissipation	Protection class	Weight	Dimensions (W x H x D)	
		[V]	[A]	[kW]	[°C]	[A]	[W]		[kg]	[mm]	
<b>FXDM2.6A</b>	<b>308063</b>	400	2.6	1.1	40	6	45	IP54	3.20	240 x 284 x 115	
<b>FXDM4.2A</b>	<b>308148</b>		4.2	1.5	40	10	70		6.40	250 x 302 x 195.5	
<b>FXDM5A</b>	<b>308149</b>		5	2.2	40	10	80		6.40	250 x 302 x 195.5	
<b>FXDM7.5A</b>	<b>308150</b>		7.5	3.0	40	10	125		7.30	250 x 302 x 195.5	
<b>FXDM8.5A</b>	<b>308151</b>		8.5	4.0	40	10	150		7.30	250 x 302 x 195.5	
<b>FXDM12A</b>	<b>308152</b>		12	5.5	40	16	210		7.50	250 x 302 x 195.5	
<b>FXDM17A</b>	<b>308153</b>		17	7.5	40	20	300		7.50	250 x 302 x 195.5	
<b>FXDM25A</b>	<b>308112</b>		25	11	40	35	480		12.50	280 x 355 x 239	
<b>FXDM32A</b>	<b>308078</b>		32	15	50	35	750		24.50	386 x 525 x 283	
<b>FXDM32AE</b>	<b>308079</b>		32	15	50	35	750		IP20	24.20	336 x 471 x 220
<b>FXDM39A</b>	<b>308080</b>		39	18.5	55	50	900		IP54	26.30	386 x 525 x 283
<b>FXDM39AE</b>	<b>308081</b>		39	18.5	55	50	900		IP20	25.80	336 x 471 x 220
<b>FXDM46A</b>	<b>308088</b>		46	22	50	50	1050		IP54	26.30	386 x 525 x 283
<b>FXDM46AE</b>	<b>308089</b>		46	22	50	50	1050		IP20	25.80	336 x 471 x 220
<b>FXDM62A</b>	<b>308092</b>		62	30	40	63	1250		IP54	26.30	386 x 525 x 283
<b>FXDM62AE</b>	<b>308093</b>		62	30	40	63	1250	IP20	25.80	336 x 471 x 220	

Devices with a rated temperature less than 55 °C can be operated up to 55 °C in case of power reduction  
Power rating of the internal rotor motor for the allocation of the frequency inverter the motor rated current decisive

### Icontrol without main switch, with UL certification

3~ 200...480V 50/60Hz

Type	Article no.	Rated voltage	Rated current	Rated power	Rated temperature	Max. line fuse	Max. heat dissipation	Protection class	Weight	Dimensions (W x H x D)
		[V]	[A]	[kW]	[°C]	[A]	[W]		[kg]	[mm]
<b>FXDM32A</b>	<b>308078-UL</b>	400	32	15	50	35	750	IP54	23.50	386 x 525 x 283
<b>FXDM32AE</b>	<b>308079-UL</b>		32	15	50	35	750	IP20	28.10	343 x 600 x 280

Devices with a rated temperature less than 55 °C can be operated up to 55 °C in case of power reduction  
Power rating of the internal rotor motor for the allocation of the frequency inverter the motor rated current decisive



# Frequency inverter

## 3~ Icontrol, universal controller with display

Icontrol with main switch 3~ 208...480V 50/60Hz										
Type	Article no.	Rated voltage	Rated current	Rated power	Rated temperature	Max. line fuse	Max. heat dissipation	Protection class	Weight	Dimensions (W x H x D)
		[V]	[A]	[kW]	[°C]	[A]	[W]		[kg]	[mm]
<b>FXDM2.6AQ</b>	<b>308161</b>	400	2.6	1.1	40	6	45	IP54	3.40	240 x 284 x 149
<b>FXDM4.2AQ</b>	<b>308162</b>		4.2	1.5	40	10	70		6.60	250 x 302 x 229.5
<b>FXDM5AQ</b>	<b>308163</b>		5	2.2	40	10	80		6.60	250 x 302 x 229.5
<b>FXDM7.5AQ</b>	<b>308164</b>		7.5	3.0	40	10	125		7.50	250 x 302 x 229.5
<b>FXDM8.5AQ</b>	<b>308165</b>		8.5	4.0	40	10	150		7.50	250 x 302 x 229.5
<b>FXDM12AQ</b>	<b>308166</b>		12	5.5	40	16	210		7.70	250 x 302 x 229.5
<b>FXDM17AQ</b>	<b>308167</b>		17	7.5	40	20	300		7.70	250 x 302 x 229.5
<b>FXDM25AQ</b>	<b>308168</b>		25	11	40	35	480		12.80	280 x 355 x 273
<b>FXDM32AQ</b>	<b>308169</b>		32	15	50	35	750		25.30	386 x 525 x 317
<b>FXDM39AQ</b>	<b>308170</b>		39	18.5	55	50	900		27.10	386 x 525 x 317
<b>FXDM46AQ</b>	<b>308171</b>		46	22	50	50	1050		27.10	386 x 525 x 317
<b>FXDM62AQ</b>	<b>308172</b>		62	30	40	63	1250		27.10	386 x 525 x 317

Devices with a rated temperature less than 55 °C can be operated up to 55°C in case of power reduction  
Power rating of the internal rotor motor for the allocation of the frequency inverter the motor rated current decisive

Information

MAXvent owlet

System components

Control technology

General notes

# Frequency inverter

## 3~ Icontrol Basic, modularly extendable speed controllers



The frequency inverters Icontrol 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 Icontrol 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

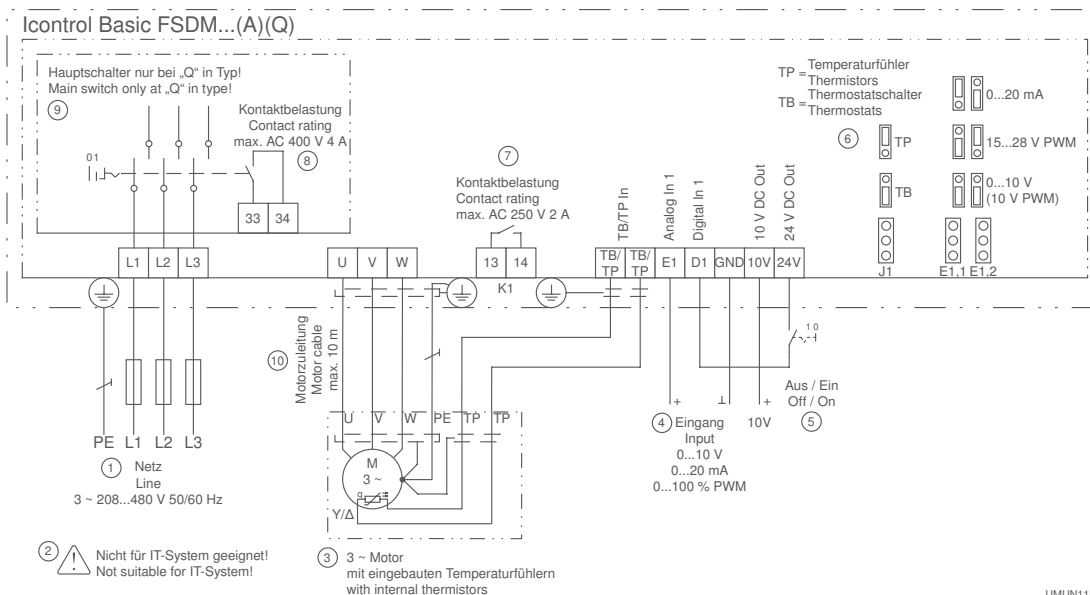


Setting of the desired speed through device or by external default, e.g. 0-10 V



Add-on modules for functional extension

### Connection diagram



UMUN1K2  
07.02.2012



### Technical data

- Line voltage: 3~ 208-480 V
- Line frequency: 50/60 Hz
- Maximum output frequency:  
50 Hz (1-120 Hz optional)
- Switching frequency: 8 kHz
- Maximum ambient temperature: +40 °C  
(up to +55 °C with power reduction possible)
- Interference emission according to EN 61000-6-3 (domestic)
- Interference immunity according to EN 61000-6-2 (industry)

### Equipment/properties

#### 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".

Icontrol Basic without Display										
3~ 208...480V 50/60Hz										
Type	Article no.	Rated voltage	Rated current	Rated power	Rated temperature	Max. line fuse	Max. heat dissipation	Protection class	Weight	Dimensions (W x H x D)
		[V]	[A]	[kW]	[°C]	[A]	[W]		[kg]	[mm]
<b>FSDM2.6</b>	<b>308214</b>	400	2.6	1.1	50	6	40	IP54	2.50	240 x 284 x 115
<b>FSDM3.6</b>	<b>308215</b>		3.6	1.5	40	6	55		2.60	240 x 284 x 115
<b>FSDM5</b>	<b>308216</b>		5	2.2	55	10	80		4.60	250 x 302 x 195.5
<b>FSDM7</b>	<b>308217</b>		7	3.0	50	10	105		4.70	250 x 302 x 195.5
<b>FSDM8.5</b>	<b>308218</b>		8.5	4.0	55	10	130		5.60	250 x 302 x 195.5
<b>FSDM12</b>	<b>308264</b>		12	5.5	55	16	175		5.70	250 x 302 x 195.5
<b>FSDM17</b>	<b>308269</b>		17	7.5	50	20	260		5.90	250 x 302 x 195.5

Devices with a rated temperature less than 55 °C can be operated up to 55°C in case of power reduction  
Power rating of the internal rotor motor for the allocation of the frequency inverter the motor rated current decisive

# Frequency inverter

## 3~ Icontrol Basic, speed controller with display, main switch optional



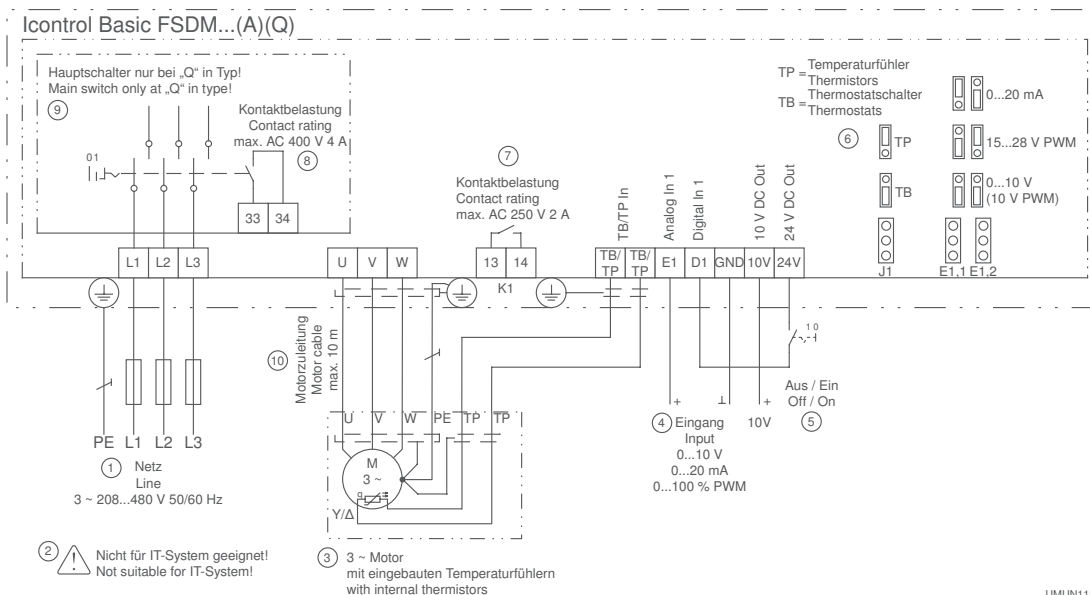
The frequency inverters Icontrol 3~ are also available as "Basic" versions with integrated display. The devices are speed controllers in this version and can be controlled, for example, by 0-10 V. Functional extension with add-on modules is not possible with the "Basic" versions with display. Speeds or motor parameters can be set, for example, with the display. The versions with display are also available with integrated main switch.

### 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



### Technical data

- Line voltage: 3~ 208-480 V
- Line frequency: 50/60 Hz
- Maximum output frequency: 120 Hz
- Switching frequency: 8 kHz
- Maximum ambient temperature: +40 °C  
(up to +55 °C with power reduction possible)
- Interference emission according to EN 61000-6-3 (domestic)
- Interference immunity according to EN 61000-6-2 (industry)

### Equipment/properties

#### 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".

#### Optional version with integrated main switch:

Switch settings 0 - I. The main switch can be locked with a padlock in position 0.

Icontrol Basic with Display									
3~ 208...480V 50/60Hz									
Type	Article no.	Rated voltage	Rated current	Rated temperature	Max. line fuse	Max. heat dissipation	Protection class	Weight	Dimensions (W x H x D)
		[V]	[A]	[°C]	[A]	[W]		[kg]	[mm]
<b>FSDM2.6A</b>	<b>308228</b>	400	2.6	50	6	40	IP54	2.70	240 x 284 x 115
<b>FSDM3.6A</b>	<b>308230</b>		3.6	40	6	55		2.80	240 x 284 x 115
<b>FSDM5A</b>	<b>308232</b>		5	55	10	80		4.80	250 x 302 x 195.5
<b>FSDM7A</b>	<b>308234</b>		7	50	10	105		4.90	250 x 302 x 195.5
<b>FSDM8.5A</b>	<b>308236</b>		8.5	55	10	130		5.80	250 x 302 x 195.5
<b>FSDM12A</b>	<b>308265</b>		12	55	16	175		5.90	250 x 302 x 195.5
<b>FSDM17A</b>	<b>308267</b>		17	50	20	260		6.10	250 x 302 x 195.5

Devices with a rated temperature less than 55 °C can be operated up to 55 °C in case of power reduction



# General notes

## Overview

Aerodynamics and Acoustics Page 62

Installation and usage information Page 64

Information

MAXvent owlet

System components

Control technology

General notes

# Aerodynamics and Acoustics

## Measurement method

The 'characteristic curve' diagram shows the pressure increase  $\Delta p_{sF}$  in Pa as a function of the volume flow rate  $q_v$  in  $m^3/h$ .

### Technical delivery conditions

The specified performance data applies to the rated data and air performance curves at the rated voltage. The colored lines in the characteristic map represents the optimum reliable operating range for axial fans.

### Fan test-bench

MAXvent owllet:

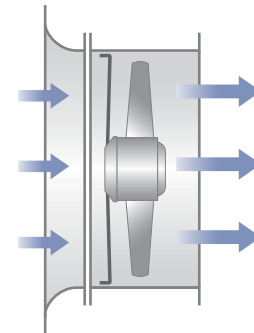
The fan characteristic curves are determined on a combined ventilation and sound test-bench.

The characteristic curves are measured in compliance with **DIN EN ISO 5801** and **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 free (air) intake and (air) outlet (installation type A in compliance with **DIN EN ISO 5801** and **AMCA 210-99**).

### Air density

The air temperature and humidity are conditioned during the measurement using heat exchangers and are largely kept constant. The characteristic curves shown are relative to the measuring density. The mean measuring density is  $1.16 \text{ kg/m}^3$ .

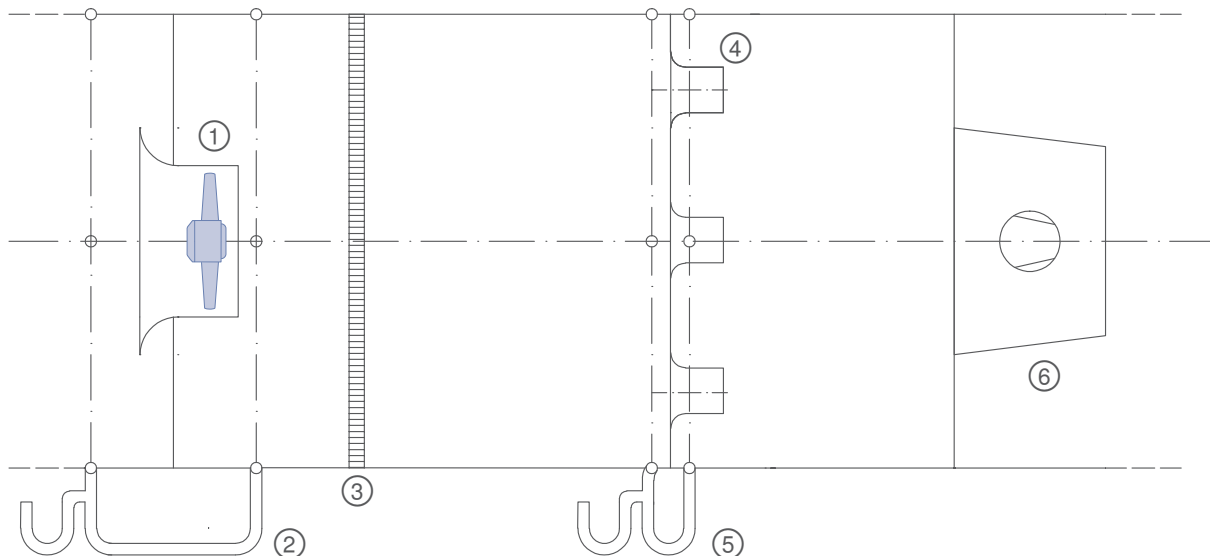


Installation type A according to ISO 5801

KL-1290a



Technology Centre (InVent)



- ① Test fan
- ②  $p_{sF}$
- ③ Flow straightener
- ④ Nozzles
- ⑤  $\Delta p$  Differential pressure
- ⑥ Auxiliary fan



## Noise level data

### 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.

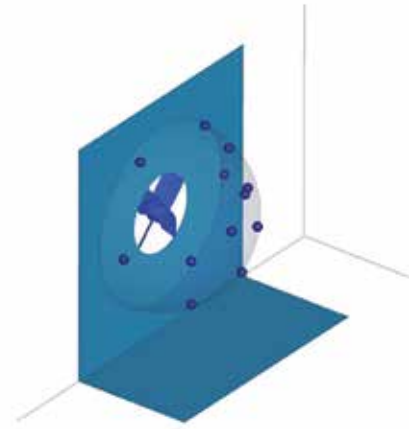


Fig. Ia: Position of microphones in relation to axial fans



Fig. Ib: Fan test-bench

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  $L_p$  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  $L_W$ . To do this, the fans are installed with a free intake (from the measuring chamber) and (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.

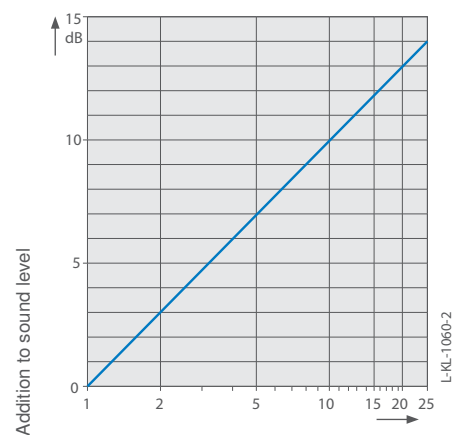


Fig. II: Addition of several sound sources

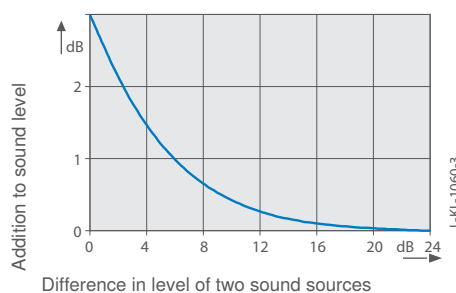


Fig. III: Sound sources of different levels

# 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 <sup>3</sup> /h	Air flow
$n_N$	rpm	Rated speed
$P_1$	hp	Motor input power
$P_{sys}$	hp	Motor input power
$U_N$	V	Rated voltage
$f_N$	Hz	Rated frequency
$I_N$	A	Rated current
$I_A$	A	Starting current
$\Delta I$	%	Percentage increase of current based on rated current for speed control by voltage reduction
$C_{400V}$	$\mu F$	Capacity
$t_{R(min)}$	°F	Minimum permitted ambient temperature
$t_{R(max)}$	°F	Maximum permitted ambient temperature
$L_{WAS}$	dB	Suction side sound power level
$\eta_{statA}$	%	Total difference, statically according to measuring category A in the optimal point without losses of the electronic speed control, according to calculation method ErP directive no. 327/2011 Appendix
$N_{actual}$	-	Actual efficiency of the fan at the energy efficiency optimum related to the motor input power 10 kW
$N_{target}$	-	Required efficiency factor with a motor input power 10 kW

### 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  $\eta_{statA}$ . 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  $N_{target}$  we also specify the actual efficiency  $N_{actual}$  based on a motor input power of 10 kW. Any and all data pertaining to ErP refer to measurement data established using ZIEHL-ABEGG long casing with inlet bell mouth without guard grille in installation type A to ISO 5801.





# Installation and usage information

## Installation position

The axial fans are essentially suitable in all installation positions. They are available in both airflow directions.

## Installation instructions

When installing fans in the devices, it is important to ensure proper intake when the fan is installed by allowing a minimum integration distance equivalent to approximately one fan's diameter.

## Operating conditions and product life

### Safety equipment

The fans may only be operated when they are installed as intended and when safety is ensured by safety equipment according to DIN EN 294 resp. ISO 13852 (DIN EN ISO 12100) or by other protection measures.

ZIEHL-ABEGG MAXvent owlet fans can be operated at ambient temperatures between -20 °C (minimum) and +50 °C (maximum) when used properly. The following min./max. temperatures are available on request:  
-40 °C ... + 80 °C

Impellers are balanced according to IEC 1940 standard (G=6.3)

## Contact protection

Guard grilles, offered as accessories can be positioned on the pressure and on the intake side of the fan as required and depending on the installation situation, to meet the safety requirements set out in DIN EN ISO 13857.

## Operation with frequency inverter

ZIEHL-ABEGG MAXvent owlet fans are suitable for operation with frequency inverters.

## General notes

The information and data contained in this catalogue were composed to the best of our best ability and do not absolve the user from its duty to check the suitability of the products with respect to its intended application.

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.

ZIEHL-ABEGG SE reserves the right to make design changes, which are used for continuous technical improvement.

This catalogue contains information for your guidance. No guarantee is provided with regard to the accuracy of all information and no legal claims may be derived from this. Reproduction of this information, or extracts thereof, is permitted only with written approval.

## Copyright

ZIEHL-ABEGG SE reserves in its entirety the copyright of this catalogue. The catalogue is intended for proper use as intended and neither the catalogue, its content nor extracts may be passed on to third parties without our express written consent.



# The Royal League

© ZIEHL-ABEGG SE - 00701929 - MA - 05/2014 - 250 - Schweißert - Subject to technical Modifications

