W8D800-NG01-01

AC axial fan - AxiCool

sickled blades (S series)

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Nominal data

Type	**W8D800-NG01-01**
Motor	**M8D138-HF**

Phase		3~
Nominal voltage	VAC	400
Connection		Δ
Frequency	Hz	50
Type of data definition		ml
Valid for approval / standard		CE
Speed (rpm)	min^{-1}	680
Power input	W	720
Current draw	A	2.0
Max. back pressure	Pa	90
Min. ambient temperature	°C	-40
Max. ambient temperature	°C	40
Starting current	A	5.5

ml = Max. load · me = Max. efficiency · fa = Running at free air · cs = Customer specs · cu = Customer unit
Subject to alterations

Data in accordance with ecodesign regulation EU 327/2011

		Actual	Request 2015
01 Overall efficiency η_{es}	%	37.1	32.7
02 Measurement category		A	
03 Efficiency category		Static	
04 Efficiency grade N		44.4	40
05 Variable speed drive		No	

09 Power input P_e	kW	0.71
09 Air flow q_v	m^3/h	10185
09 Pressure increase p_{fs}	Pa	94
10 Speed (rpm) n	min^{-1}	685
11 Specific ratio*		1.00

Data definition with optimum efficiency.
The ErP data is determined using a motor-impeller combination in a standardised measurement configuration.

* Specific ratio = 1 + p_{fs} / 100 000 Pa

LU-178448

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Technical features

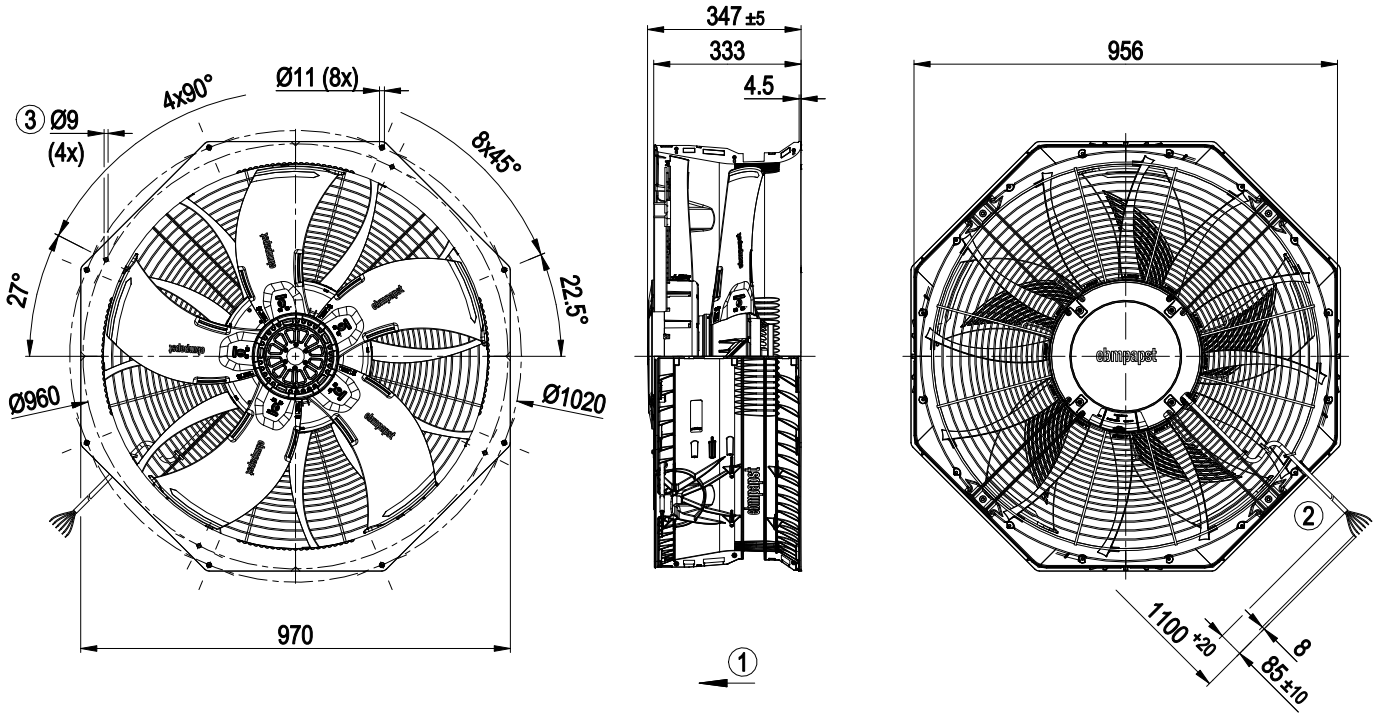
Mass	39.0 kg
Size	800 mm
Motor size	138
Surface of rotor	Cast in aluminium
Material of impeller	PP plastic
Material of wall ring	PP plastic
Streamer material	PP plastic
Material of guard grille	Steel, coated in black plastic (RAL9005)
Number of blades	5
Blade angle	0°
Direction of air flow	V
Direction of rotation	Clockwise, seen on rotor
Type of protection	IP54
Insulation class	"F"
Humidity (F) / environmental protection class (H)	H2
Note ambient temperature	If there is a risk of ice formation, the fan is only to be operated with a heating tape in the wall ring. Contact ebm-papst for more details. As a fan only suitable for use with industrial evaporators
Max. permissible ambient motor temp. (transp./ storage)	+70 °C
Min. permissible ambient motor temp. (transp./storage)	-40 °C
Mounting position	See fitting instructions
Condensation drainage holes	On rotor and stator sides
Operation mode	S1
Motor bearing	Ball bearing with anti-freezing grease
Touch current acc. IEC 60990 (measuring network Fig. 4, TN system)	<= 3.5 mA
Motor protection	Thermal overload protector (TOP) brought out, basic insulation
Cable exit	Axial
Protection class	I (if protective earth is connected by customer)
Product conforming to standard	EN 60034-1 (2010); CE
Approval	VDE; EAC

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Product drawing

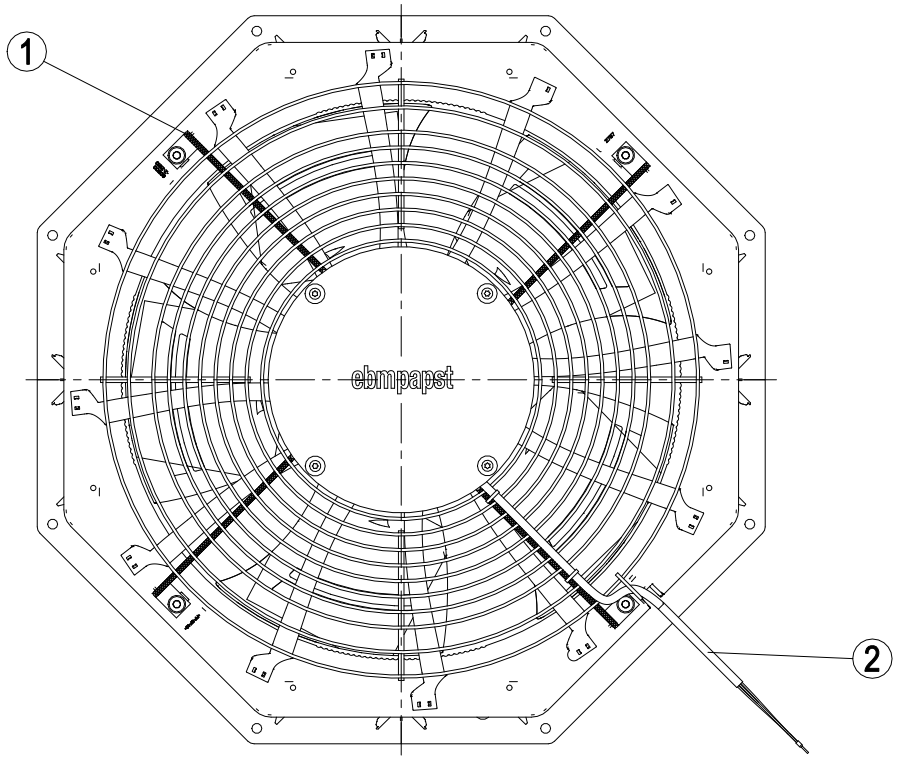


1	Direction of air flow "V"
2	Connection line halogen-free 6G 0.75 mm², 6x lead tips crimped
3	Mounting holes for FlowGrid

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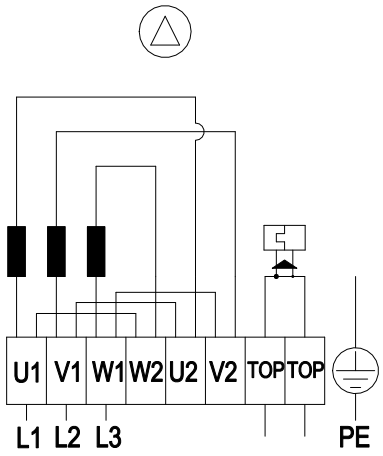
1	Installation position: shaft horizontal (install the support struts in X-position only as shown in illustration) or rotor on bottom
2	Cable exit must be at bottom right when shaft is installed in horizontal position.

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Connection screen



Three-phase motor equipped with TOP
Change in direction of rotation by reversing two phases

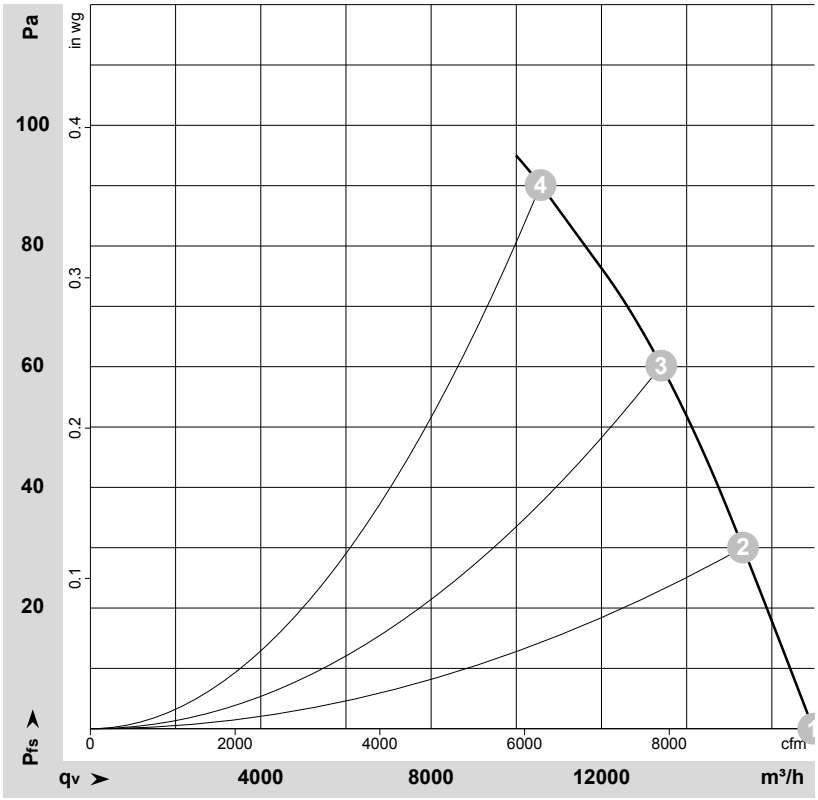
Δ	Delta connection
L1	black
L2	blue
L3	brown
TW	Thermal overload protector grey (2x)
PE	green/yellow

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Charts: Air flow 50 Hz



ρ = 1.174 kg/m³ ± 2 %

Measurement: LU-178448-1

Air performance measured as per ISO 5801 Installation category A. For detailed information on the measuring set-up, please contact ebm-papst. Suction-side noise levels: LwA measured as per ISO 13347 / LpA measured with 1m distance to fan axis. The values given are valid under the measuring conditions mentioned above and may vary according to the actual installation situation. With any deviation from the standard set-up, the specific values have to be checked and reviewed with the unit installed.

Measured values

	Conn.	U	f	n	P_e	I	LpA_{in}	LwA_{in}	LwA_{out}	q_V	p_{fs}	q_V	p_{fs}
		V	Hz	min^{-1}	W	A	dB(A)	dB(A)	dB(A)	m^3/h	Pa	cfm	in. wg
1	Δ	400	50	705	570	1.93	62	69	69	16975	0	9990	0.00
2	Δ	400	50	700	627	1.96	62	68	68	15320	30	9020	0.12
3	Δ	400	50	690	680	2.00	64	69	69	13405	60	7890	0.24
4	Δ	400	50	680	720	2.00	69	75	76	10570	90	6220	0.36

Conn. = Connection · U = Supply voltage · f = Frequency · n = Speed (rpm) · P_e = Power input · I = Current draw · LpA_{in} = Sound pressure level inlet side · LwA_{in} = Sound power level inlet side LwA_{out} = Sound power level outlet side · q_V = Air flow · p_{fs} = Pressure increase

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