W6D800-KG13-01

AC axial fan - AxiBlade

sickled blades (S series)

with full square nozzle

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Nominal data

Type	**W6D800-KG13-01**
Motor	**M6D138-HF**

Phase		3~	3~
Nominal voltage	VAC	400	400
Connection		Δ	Y
Frequency	Hz	50	50
Type of data definition		ml	ml
Valid for approval / standard		CE	CE
Speed (rpm)	min^{-1}	870	650
Power input	W	1430	840
Current draw	A	2.8	1.6
Max. back pressure	Pa	155	80
Min. ambient temperature	°C	-40	-40
Max. ambient temperature	°C	60	60
Starting current	A	9	3

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 (EN 17166)

		Actual	Request 2015
01 Overall efficiency η_{es}	%	40.8	34.4
02 Measurement category		A	
03 Efficiency category		Static	
04 Efficiency grade N		46.4	40
05 Variable speed drive		No	

09 Power input P_e	kW	1.31
09 Air flow q_v	m^3/h	14480
09 Pressure increase p_{fs}	Pa	134
10 Speed (rpm) n	min^{-1}	880
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-199226

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Technical features

Mass	39.4 kg
Size	800 mm
Motor size	138
Surface of rotor	Cast in aluminium
Material of terminal box	PP plastic
Material of blades	PP plastic
Material of wall ring	Sheet steel, galvanised and coated in black plastic (RAL 9005)
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	Occasional start-up between -40 °C and -25 °C is permissible. For continuous operation at ambient temperatures below -25 °C (e.g. refrigeration applications), a fan version with special low-temperature bearings must be used.
Max. permissible ambient motor temp. (transp./ storage)	+80 °C
Min. permissible ambient motor temp. (transp./storage)	-40 °C
Mounting position	Any
Condensation drainage holes	On rotor and stator sides
Operation mode	S1
Motor bearing	Ball bearing
Touch current acc. IEC 60990 (measuring network Fig. 4, TN system)	<= 3.5 mA
Electrical connection	Terminal box
Motor protection	Thermal overload protector (TOP) brought out, basic insulation
Protection class	I (if protective earth is connected by customer)
Product conforming to standard	EN 60034-1 (2010); CE
Approval	VDE; EAC

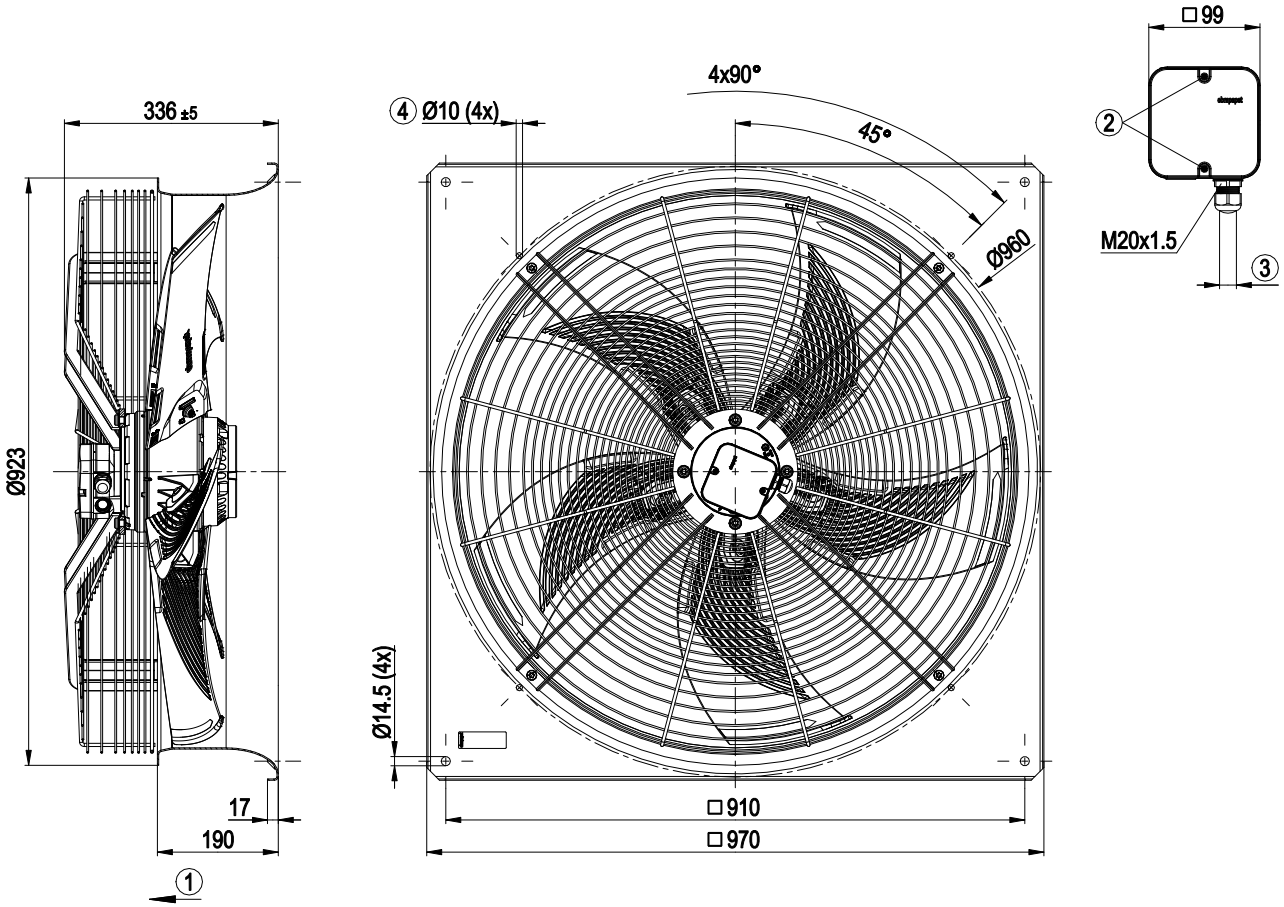
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Product drawing



1	Direction of air flow "V"
2	Tightening torque 1.5±0.2 Nm
3	Cable diameter min. 7 mm, max. 14 mm, tightening torque 2±0.3 Nm
4	Attachment holes for FlowGrid (80000-2-2957 not included in scope of delivery)

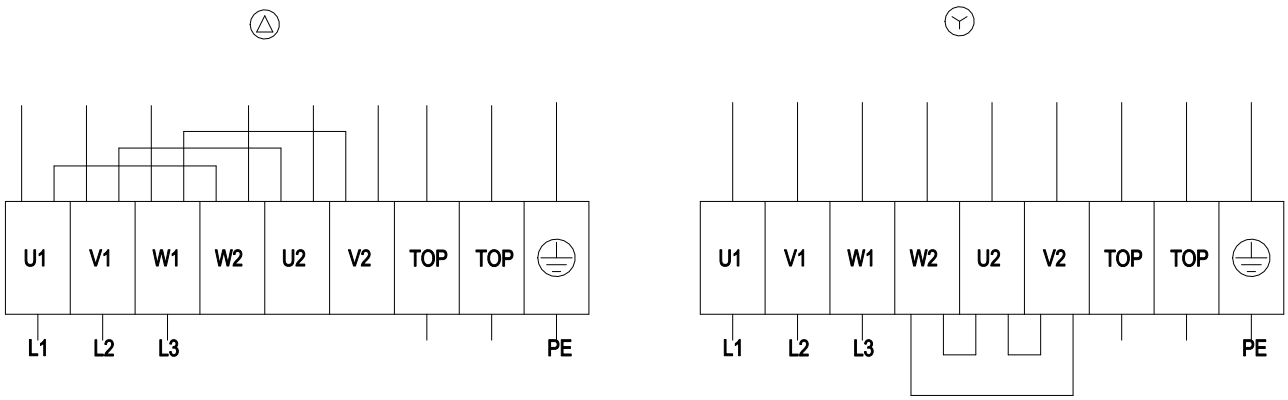
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Connection screen



Δ	Delta-connection	Y	Star connection	L1	= U1 = black
L2	= V1 = blue	L3	= W1 = brown	W2	yellow
U2	green	V2	white	TOP	2 x grey
PE	green / yellow				

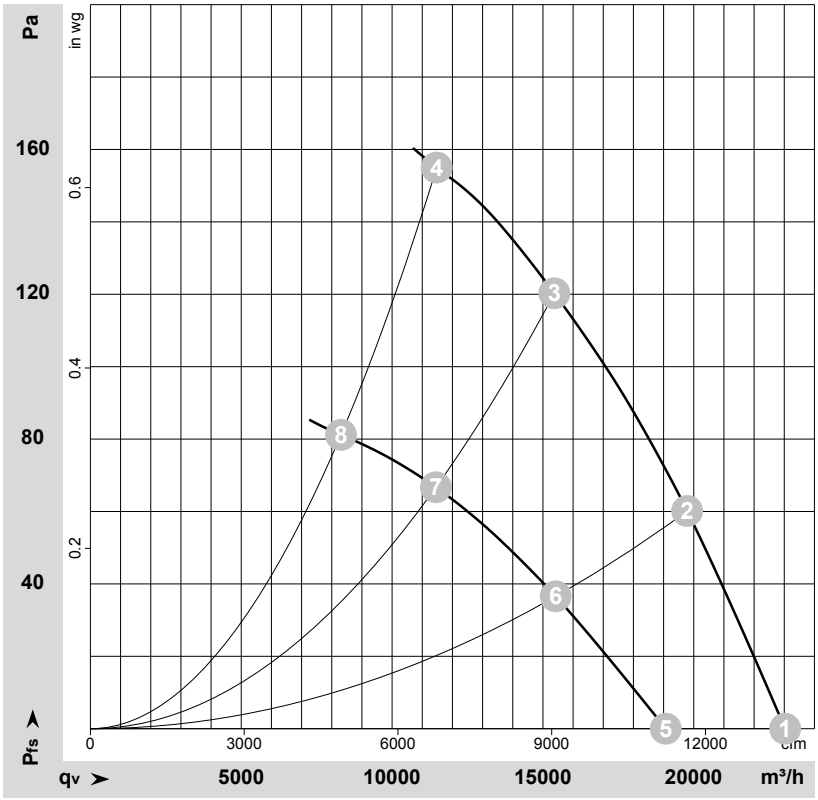
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Charts: Air flow 50 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-178965-1
Measurement: LU-179021-1

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	925	962	2.27	67	74	75	23030	0	13555	0.00
2	Δ	400	50	900	1163	2.50	66	73	73	19780	60	11645	0.24
3	Δ	400	50	880	1334	2.71	66	73	74	15380	120	9050	0.48
4	Δ	400	50	870	1430	2.80	74	82	83	11480	155	6755	0.62
5	Y	400	50	755	692	1.29	62	69	69	19070	0	11225	0.00
6	Y	400	50	700	776	1.47	61	67	67	15425	37	9080	0.15
7	Y	400	50	655	830	1.59	59	66	66	11450	67	6740	0.27
8	Y	400	50	650	840	1.60	64	72	72	8305	81	4890	0.33

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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