W6D800-CJ01-86

AC axial fan

sickled blades (S series)

with full round nozzle

W6D800-CJ01-86 ebmpapst Datasheet
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Nominal data

Type	**W6D800-CJ01-86**
Motor	**M6D138-LA**

Phase		3~	3~
Nominal voltage	VAC	400	400
Connection		Δ	Y
Frequency	Hz	50	50
Type of data definition		fa	fa
Valid for approval / standard		CE	CE
Speed	min^{-1}	930	785
Power input	W	1440	1030
Current draw	A	3.5	1.9
Min. ambient temperature	°C	-40	-40
Max. ambient temperature	°C	60	60
Starting current	A	13	4.3

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

Data according to ErP directive

Installation category	A
Efficiency category	Static
Variable speed drive	No
Specific ratio*	1.00

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

		Actual	Request 2013	Request 2015
Overall efficiency η_{es}	%	35.4	31.2	35.2
Efficiency grade N		40.2	36	40
Power input P_e	kW	1.76		
Air flow q_v	m^3/h	17035		
Pressure increase p_{fs}	Pa	132		
Speed n	min^{-1}	900		

Data definition with optimum efficiency. LU-100640
The ErP data is determined using a motor-impeller combination in a standardised measurement configuration.

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Technical features

Mass	51 kg
Size	800 mm
Surface of rotor	Coated in black
Material of terminal box	Die-cast aluminium, coated in black
Material of blades	Die-cast aluminium, coated in black
Material of wall ring	Sheet steel, pre-galvanised and plastic-coated in light grey (RAL 7035)
Material of guard grille	Steel, coated in black plastic (RAL9005)
Number of blades	5
Blade angle	0°
Direction of air flow	"A"
Direction of rotation	Counter-clockwise, seen on rotor
Type of protection	IP 55
Insulation class	"F"
Humidity class	F4-2
Max. permissible ambient motor temp. (transp./ storage)	+80 °C
Min. permissible ambient motor temp. (transp./storage)	-40 °C
Mounting position	Shaft horizontal or rotor on top; rotor on bottom on request
Condensate discharge holes	On the stator side
Operation mode	S1
Motor bearing	Ball bearing
Touch current acc. IEC 60990 (measuring network Fig. 4, TN system)	<= 3.5 mA
Electrical leads	Via terminal box
Motor protection	Thermal overload protector (TOP) brought out
Cable exit	Axial
Protection class	I (if protective earth is connected by customer)
Product conforming to standard	EN 60034-1 (2010); EN 61800-5-1; CE
Approval	EAC; VDE

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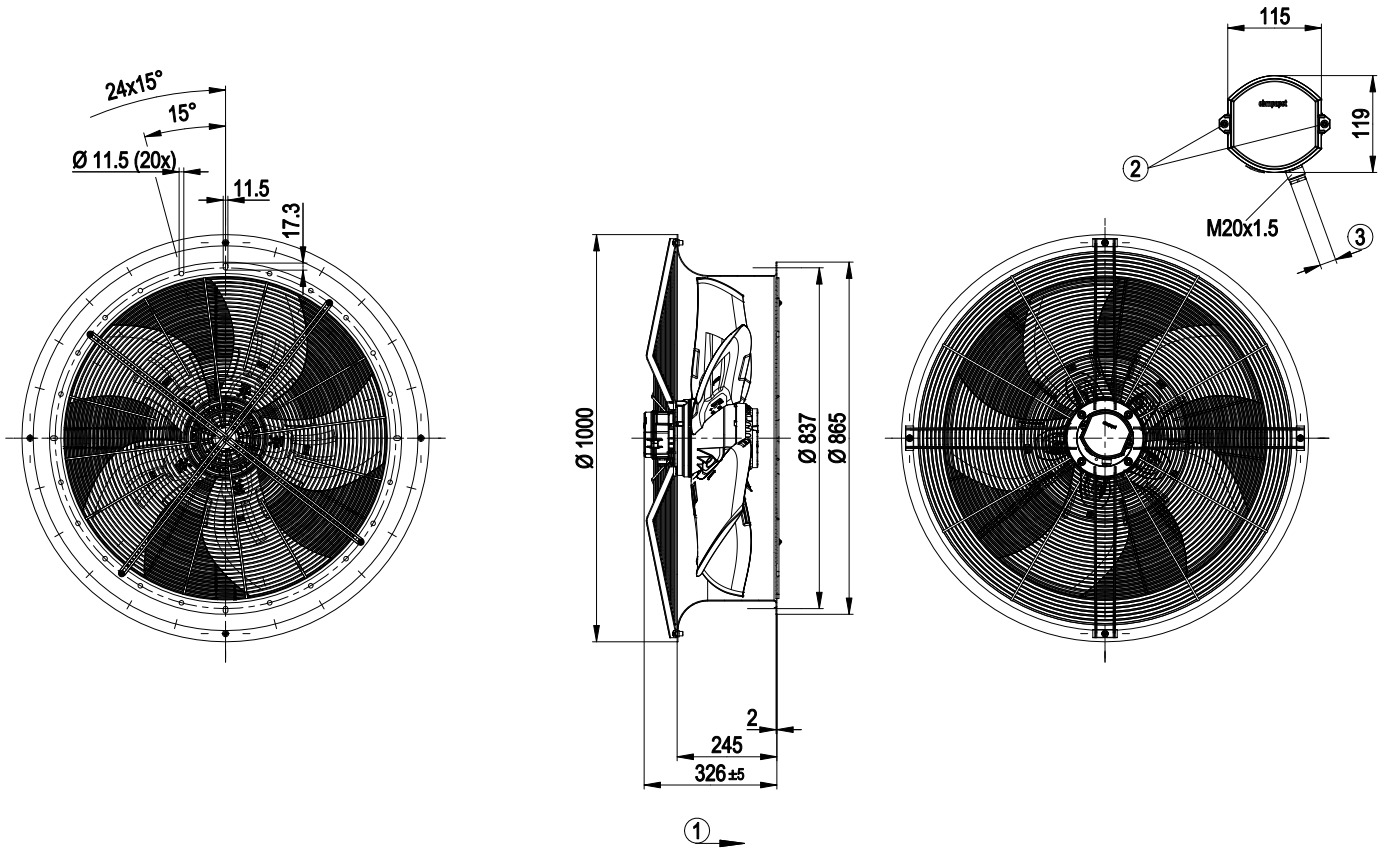
Product drawing



1	Direction of air flow "A"
2	Tightening torque 2.5±0.4 Nm
3	Cable diameter: min. 10 mm, max. 12 mm, tightening torque: 4±0.4 Nm

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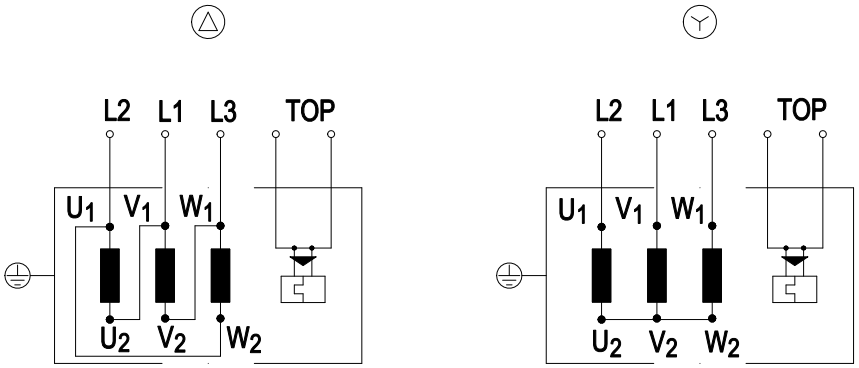
Connection screen



Change direction of rotation by reversing two phases

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

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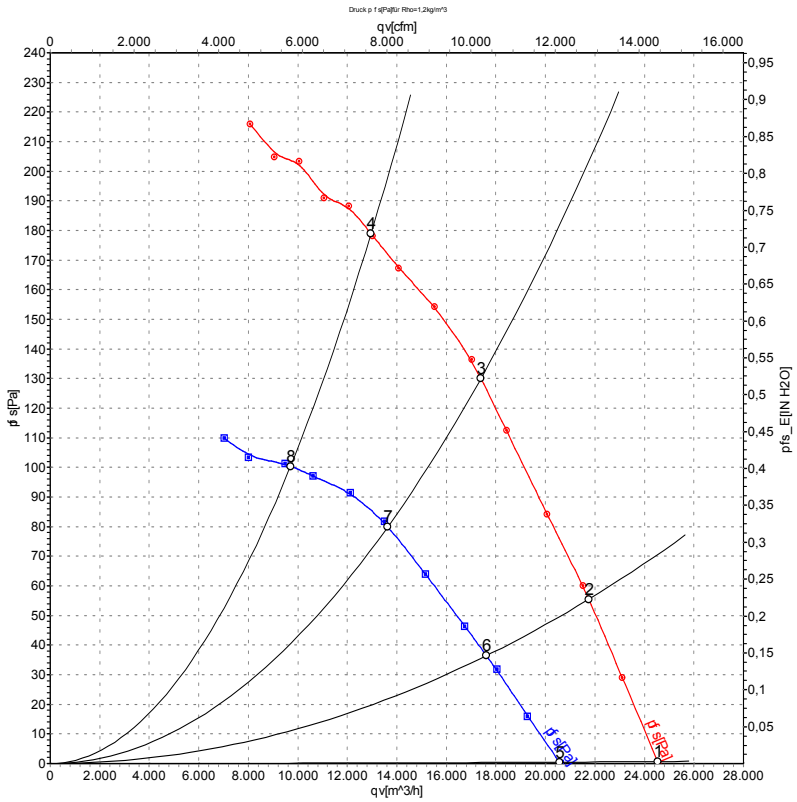
Charts: Air flow 50 Hz



Measurement: LU-100640
Measurement: LU-100800

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}	qv	p_{fs}
		V	Hz	min^{-1}	W	A	dB(A)	dB(A)	m^3/h	Pa
1	Δ	400	50	930	1440	3.50	67	73	24530	0
2	Δ	400	50	915	1561	3.50	65	71	21750	55
3	Δ	400	50	900	1749	3.63	66	72	17390	130
4	Δ	400	50	895	2000	4.30	71	78	12960	180
5	Y	400	50	785	1030	1.90	63	70	20570	0
6	Y	400	50	750	1080	2.02	61	68	17620	36
7	Y	400	50	705	1157	2.17	61	67	13630	80
8	Y	400	50	685	1270	2.50	64	72	9705	100

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