W8D800-HD01-01

AC axial fan - HyBlade®

sickled blades (S series)

with full square nozzle with AxiTop diffuser

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ErP2015 EXCEEDS THE NORM

Nominal data

Type	**W8D800-HD01-01**
Motor	**M8D138-LA**

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	min^{-1}	660	485
Power input	W	990	580
Current draw	A	2.37	1.21
Max. back pressure	Pa	105	54
Min. ambient temperature	°C	-40	-40
Max. ambient temperature	°C	70	70
Starting current	A	6	2

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}	%	33.5	29.2	33.2
Efficiency grade N		40.3	36	40
Power input P_e	kW	0.83		
Air flow q_v	m^3/h	13435		
Pressure increase p_{fs}	Pa	75		
Speed n	min^{-1}	680		

Data definition with optimum efficiency. LU-158273
The ErP data is determined using a motor-impeller combination in a standardised measurement configuration.

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Technical features

Mass	52 kg
Size	800 mm
Surface of rotor	Cast in aluminium
Material of terminal box	PC plastic
Material of blades	Aluminium sheet insert, sprayed with PP plastic
Material of mounting ring	Steel, coated in black plastic (RAL 9005)
Material of wall ring	Sheet steel, pre-galvanised and coated in black plastic (RAL 9005)
Material of guard grille	Steel, coated in black plastic (RAL9005)
Material of outer diffuser	PP plastic
Material of inner diffuser including lid	PP plastic
Number of blades	5
Blade angle	0°
Direction of air flow	"V"
Direction of rotation	Clockwise, seen on rotor
Type of protection	IP 54
Insulation class	"F"
Humidity class	F3-1
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 bottom; rotor on top on request
Condensate discharge 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 leads	Via terminal box
Motor protection	Thermal overload protector (TOP) brought out
Cable exit	Lateral
Protection class	I (if protective earth is connected by customer)
Product conforming to standard	EN 60034; EN 61800-5-1; CE
Approval	EAC; VDE

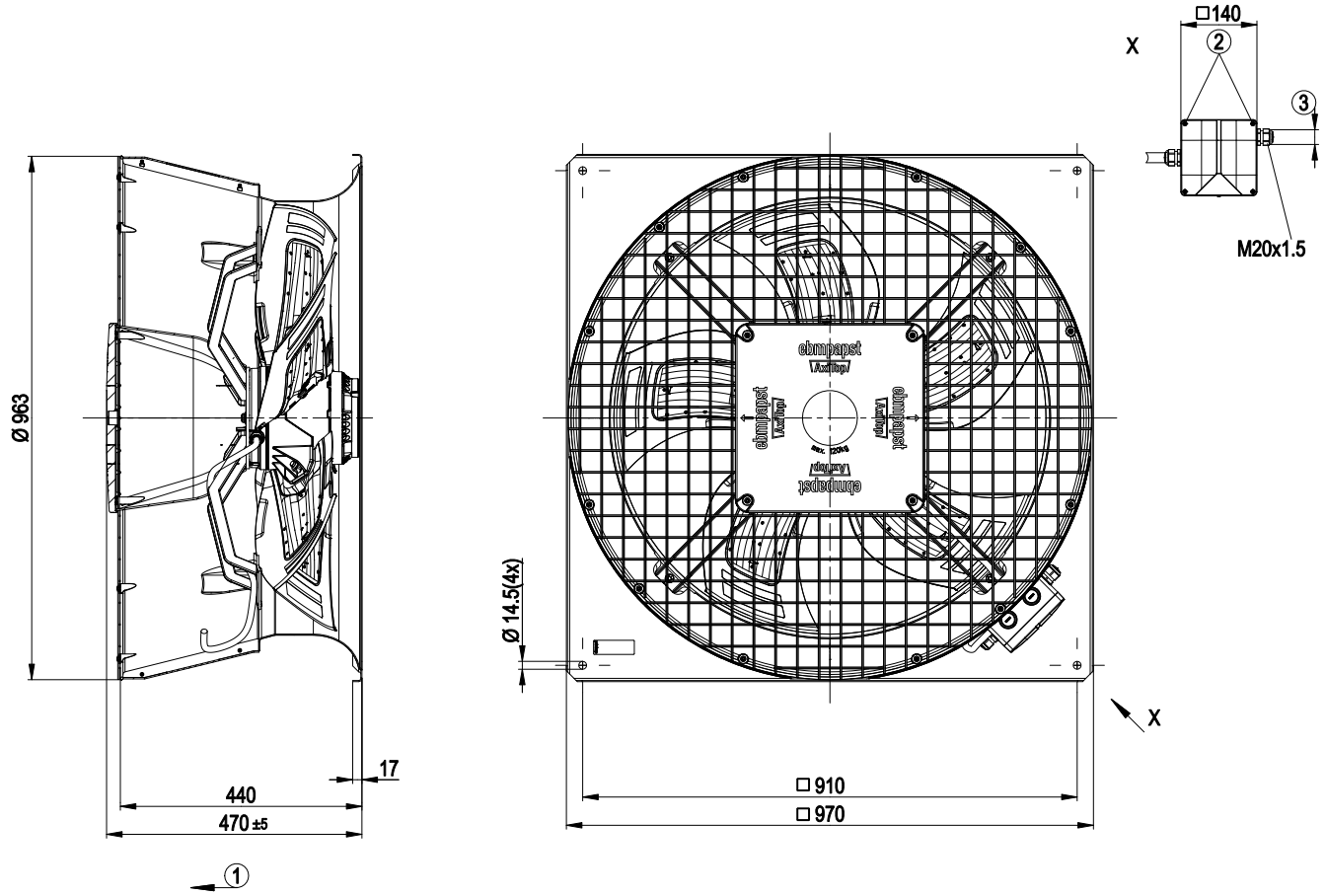
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Product drawing



1	Direction of air flow "V"
2	Tightening torque 1.7±0.2 Nm
3	Cable diameter: min. 6 mm, max. 12 mm; tightening torque 4±0.6 Nm

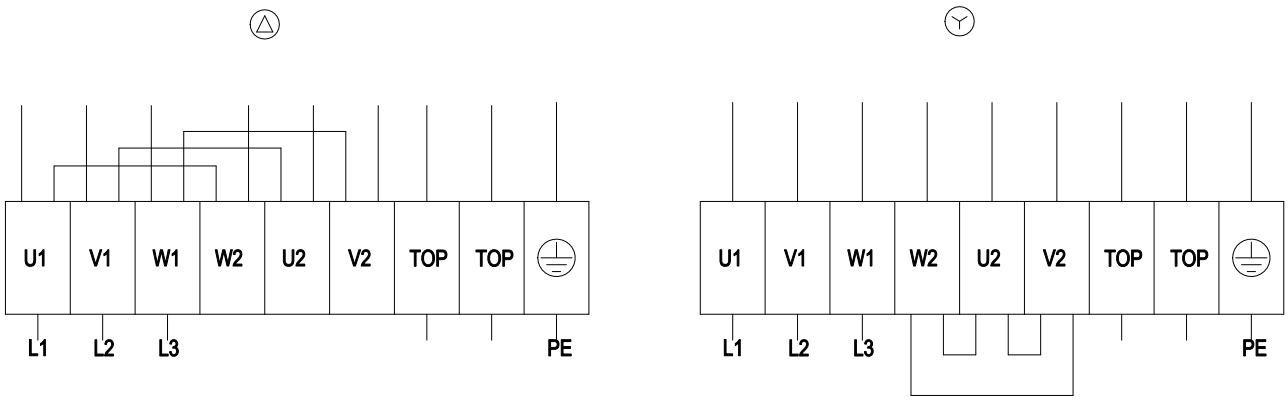
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Connection screen



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				

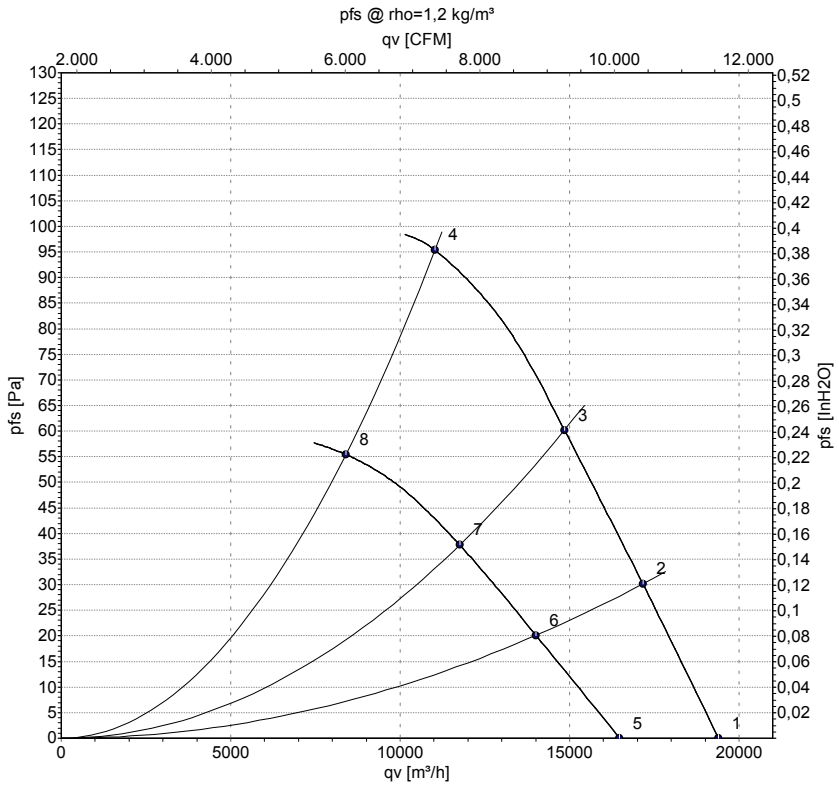
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Charts: Air flow 50 Hz



Measurement: LU-158273
Measurement: LU-158270

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}	qv	p_{fs}
		V	Hz	min^{-1}	W	A	dB(A)	dB(A)	dB(A)	m^3/h	Pa
1	Δ	400	50	700	635	2.01	61	67	68	19400	0
2	Δ	400	50	690	719	2.09	58	65	65	17170	30
3	Δ	400	50	680	794	2.17	59	65	66	14855	60
4	Δ	400	50	660	990	2.37	61	69	69	11030	95
5	Y	400	50	595	443	0.95	57	64	64	16485	0
6	Y	400	50	565	488	1.03	55	61	61	14015	20
7	Y	400	50	540	518	1.09	54	60	60	11765	38
8	Y	400	50	485	580	1.21	54	62	62	8410	55

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
LwA_{out} = Sound power level outlet side · qv = Air flow · p_{fs} = Pressure increase

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