W8D800-DD01-02

AC axial fan - HyBlade®

sickled blades (S series)

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ErP2013 EXCEEDS THE NORM

Nominal data

Type	**W8D800-DD01-02**
Motor	**M8D138-LA**

Phase		3~	3~	3~	3~	3~	3~
Nominal voltage	VAC	400	400	400	400	480	480
Connection		Δ	Y	Δ	Y	Δ	Y
Frequency	Hz	50	50	60	60	60	60
Type of data definition		ml	ml	ml	ml	ml	ml
Valid for approval / standard		CE	CE	CE	CE	CE	CE
Speed	min^{-1}	660	485	750	490	800	575
Power input	W	990	580	1120	550	1270	740
Current draw	A	2.37	1.21	2.41	1.24	2.52	1.33
Max. back pressure	Pa	105	54	60	25	65	33
Min. ambient temperature	°C	-40	-40	-40	-40	-40	-40
Max. ambient temperature	°C	70	70	65	65	65	65
Starting current	A	6	2	5.5	1.8	6.6	2.2

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}		30.4	29.3	33.3
Efficiency grade N		37.1	36	40
Power input P_e	kW	0.87		
Air flow q_v	m^3/h	11615		
Pressure increase p_{fs}	Pa	83		
Speed n	min^{-1}	675		

Data established at point of optimum efficiency

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Technical features

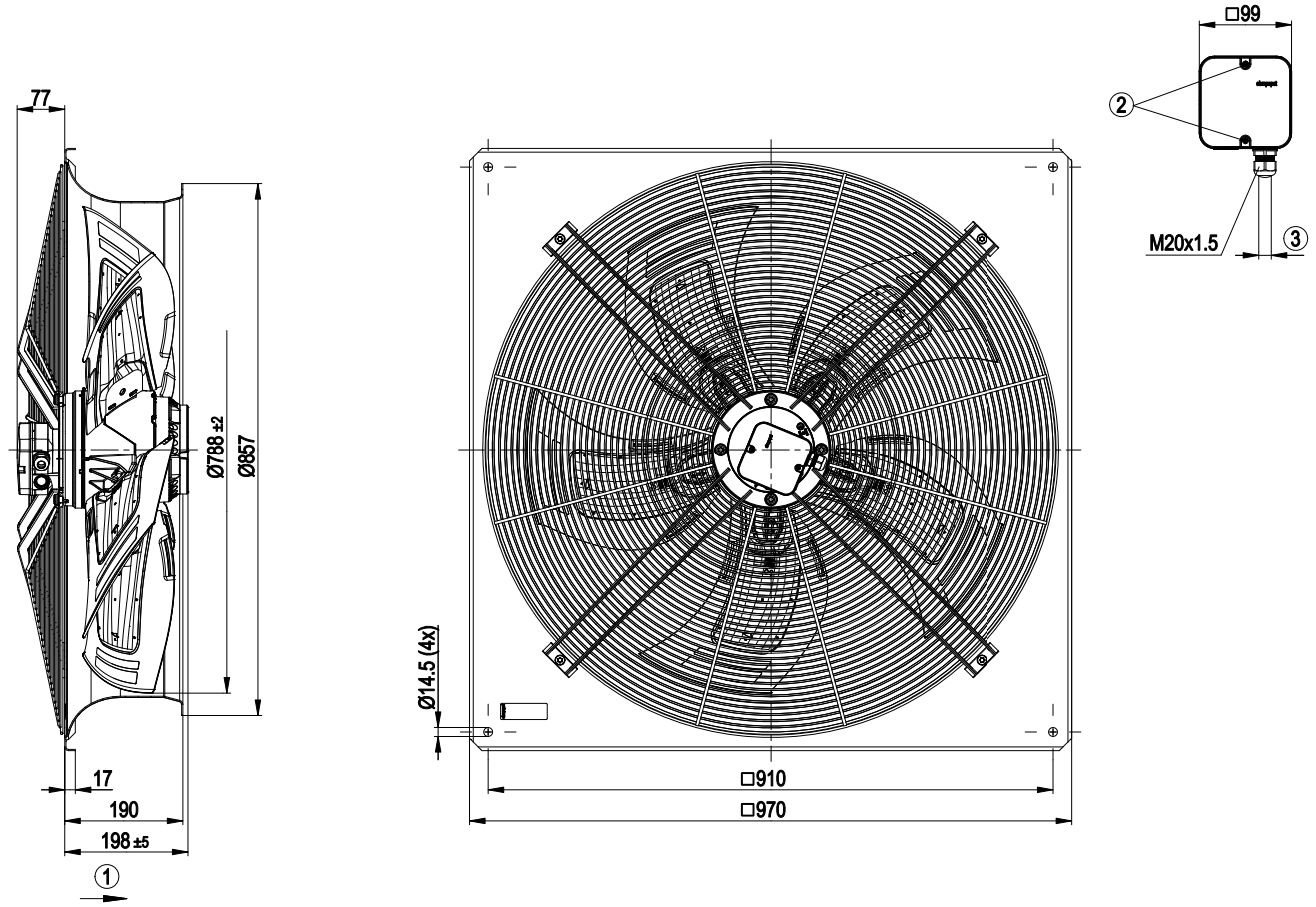
Mass	44.7 kg
Size	800 mm
Surface of rotor	Cast in aluminium
Material of blades	Aluminium sheet insert, sprayed with PP plastic
Material of wall ring	Sheet steel, pre-galvanised and coated in black plastic (RAL 9005)
Material of guard grille	Steel, coated in black plastic (RAL9005)
Number of blades	5
Blade angle	0°
Direction of air flow	"A"
Direction of rotation	Counter-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	Any
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
Protection class	I (if protective earth is connected by customer)
Product conforming to standard	EN 60034; EN 61800-5-1; CE
Approval	CCC; VDE

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Product drawing



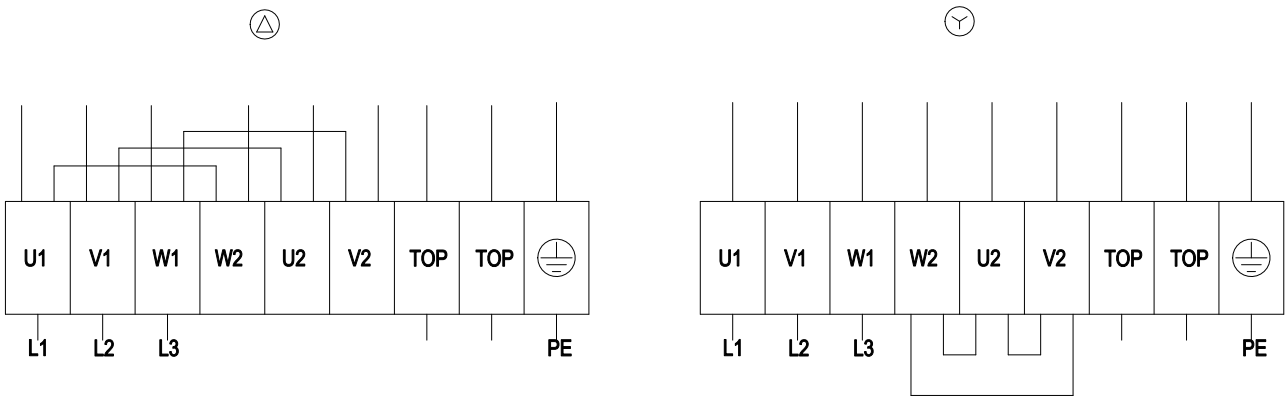
1	Direction of air flow "A"
2	Tightening torque 1.5±0.2 Nm
3	Cable diameter: min. 7 mm, max. 14 mm; tightening torque: 2±0.3 Nm

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Connection screen



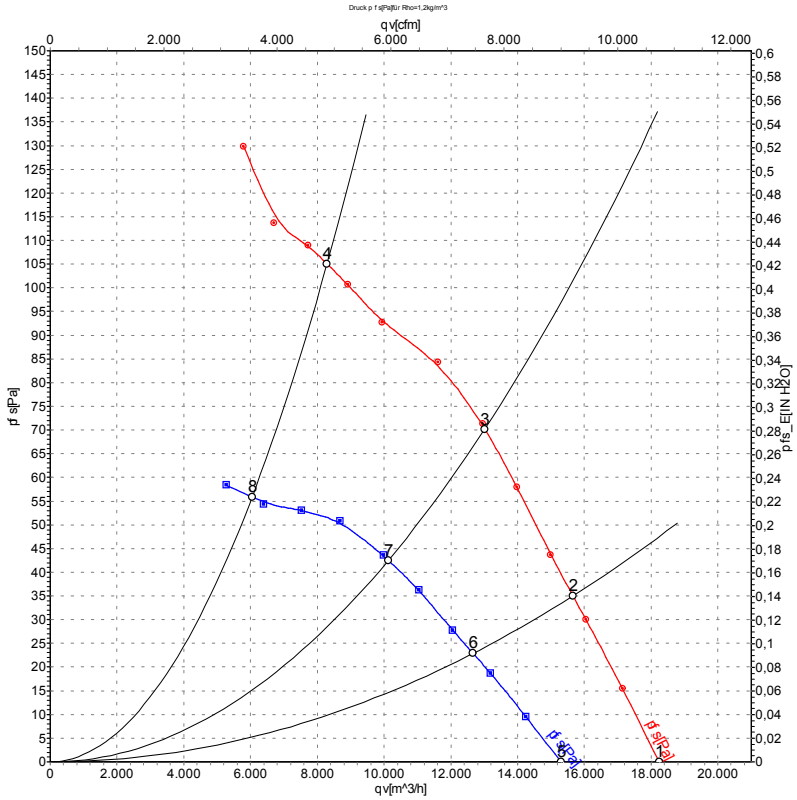
Δ	Delta connection	Y	Star connection	L1	= U1 = black
L2	= V1 = blue	L3	= W1 = brown	W2	yellow
U2	green	V2	white	TOP	2 x grey
PE	green/yellow				

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Charts: Air flow 50 Hz



Measurement: LU-115898
Measurement: LU-115925

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	684	2.05	59	65	65	18240	0
2	Δ	400	50	685	771	2.10	59	65	64	15660	35
3	Δ	400	50	680	846	2.20	60	66	65	13020	70
4	Δ	400	50	660	990	2.37	66	74	74	8295	105
5	Y	400	50	585	466	0.98	55	61	61	15300	0
6	Y	400	50	555	510	1.07	54	60	59	12660	23
7	Y	400	50	530	534	1.12	53	60	59	10130	43
8	Y	400	50	485	580	1.21	58	66	66	6045	56

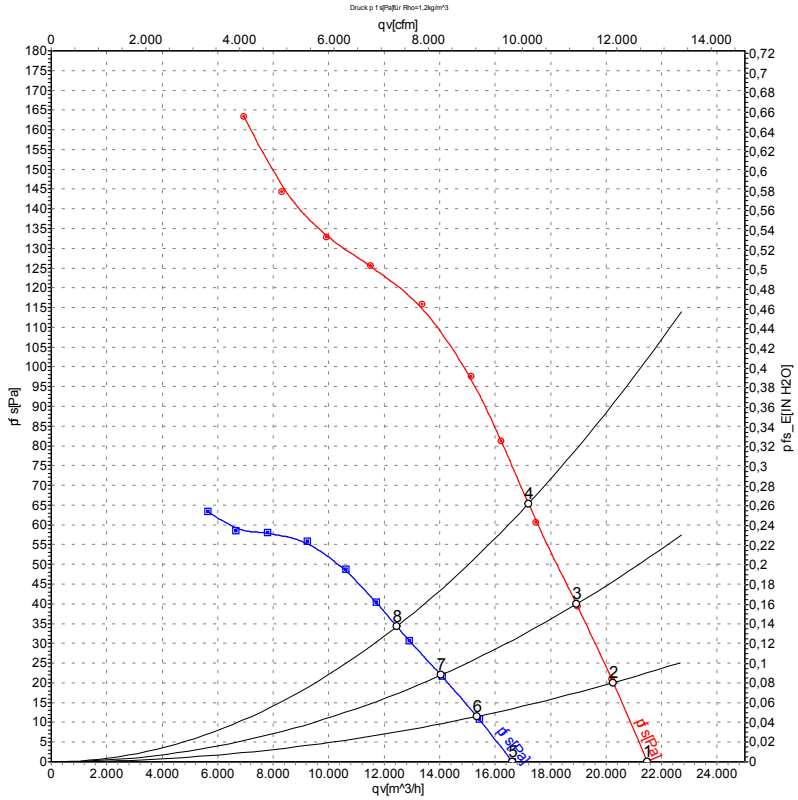
Conn. = Connection · U = Supply voltage · f = Frequency · n = Speed · P_e = Power input · I = Current draw · LpA_{in} = Sound pressure level inlet side · LwA_{in} = Sound power level inlet side
LwA_{out} = Sound power level outlet side · qv = Air flow · p_{fs} = Pressure increase

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Charts: Air flow 60 Hz



Measurement: LU-115907
Measurement: LU-115926

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	480	60	820	1067	2.29	62	69	69	21490	0
2	Δ	480	60	815	1139	2.36	62	68	68	20250	20
3	Δ	480	60	810	1195	2.42	62	69	68	18930	40
4	Δ	480	60	800	1270	2.52	63	69	68	17200	65
5	Y	480	60	640	688	1.22	57	63	62	16620	0
6	Y	480	60	615	709	1.26	56	62	61	15330	12
7	Y	480	60	600	728	1.29	55	62	61	14040	22
8	Y	480	60	575	740	1.33	55	62	61	12460	33

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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