W8D800-DD01-02

AC axial fan - HyBlade

sickle-shaped blades (S series)

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Nominal data

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

Phase		3~	3~	3~	3~
Nominal voltage	VAC	400	400	480	480
Wiring		Δ	Y	Δ	Y
Frequency	Hz	50	50	60	60
Method of obtaining data		ml	ml	ml	ml
Valid for approval/standard		-	-	-	-
Speed (rpm)	min^{-1}	660	485	800	575
Power consumption	W	990	580	1270	740
Current draw	A	2.37	1.21	2.52	1.33
Max. back pressure	Pa	105	54	65	33
Max. back pressure	inH2O	0.42	0.22	0.26	0.13
Min. ambient temperature	°C	-40	-40	-40	-40
Max. ambient temperature	°C	70	70	65	65
Starting current	A	6	2	6.6	2.2

ml = Max. load · me = Max. efficiency · fa = Free air · cs = Customer specification · ce = Customer equipment
Subject to change

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Technical description

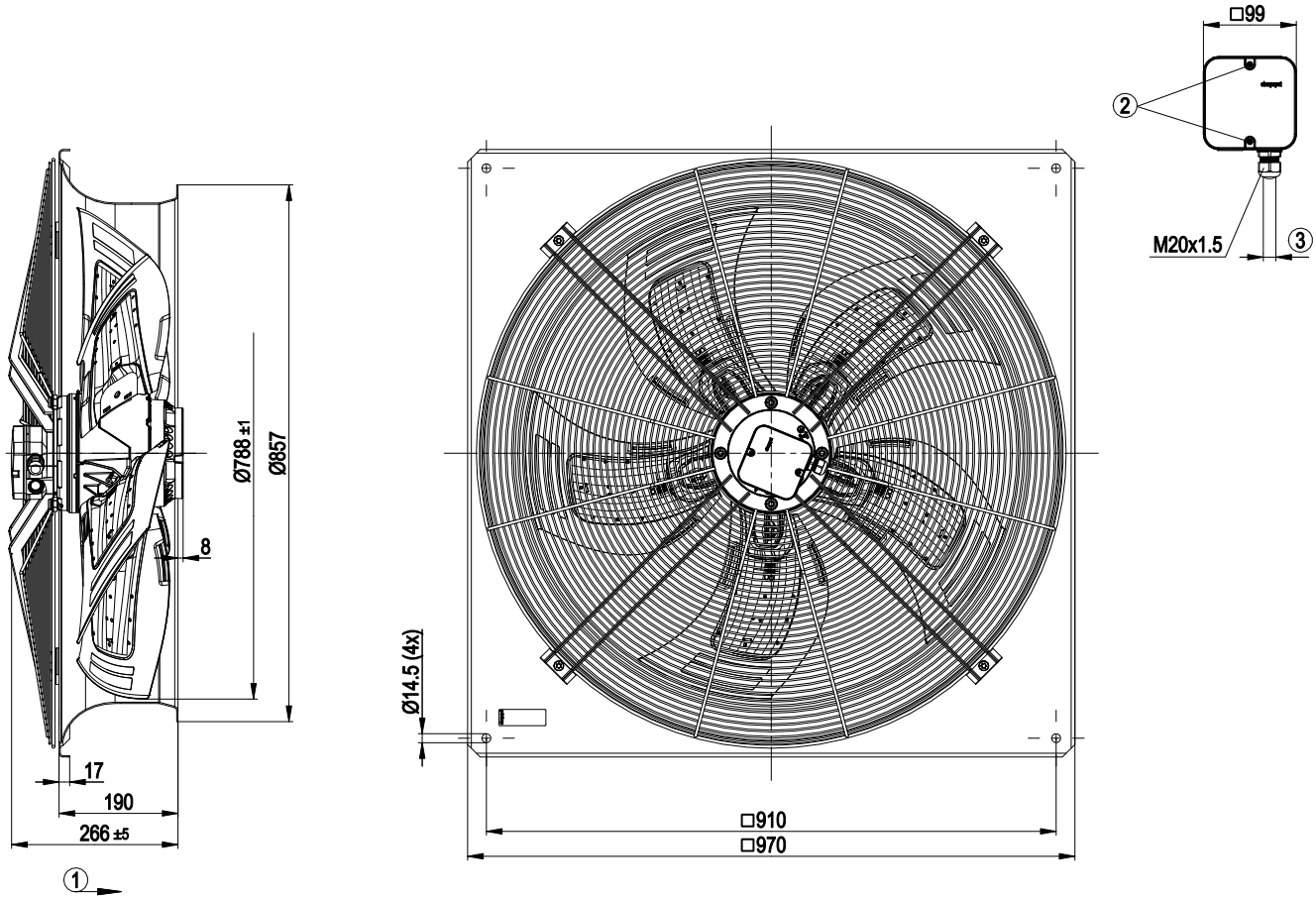
Weight	44.7 kg
Fan size	800 mm
Rotor surface	Cast in aluminum
Blade material	Sheet aluminum insert, sprayed with PP plastic
Fan housing material	Sheet steel, galvanized and coated with black plastic (RAL 9005)
Guard grille material	Steel, coated with black plastic (RAL 9005)
Number of blades	5
Blade pitch	0°
Airflow direction	"A"
Direction of rotation	Counterclockwise, viewed toward rotor
Degree of protection	IP54
Insulation class	"F"
Moisture (F) / Environmental (H) protection class	F3-1
Max. permitted ambient temp. for motor (transport/storage)	+80 °C
Min. permitted ambient temp. for motor (transport/storage)	-40 °C
Installation position	Any
Condensation drainage holes	On rotor and stator sides
Mode	S1
Motor bearing	Ball bearing
Touch current according to IEC 60990 (measuring circuit Fig. 4, TN system)	<= 3.5 mA
Electrical hookup	Via terminal box
Motor protection	Thermal overload protector (TOP) with basic insulation
Protection class	I (with customer connection of protective earth)
Conformity with standards	EN 60034-1 (2010); EN 61800-5-1
Approval	CCC; VDE; EAC

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Product drawing



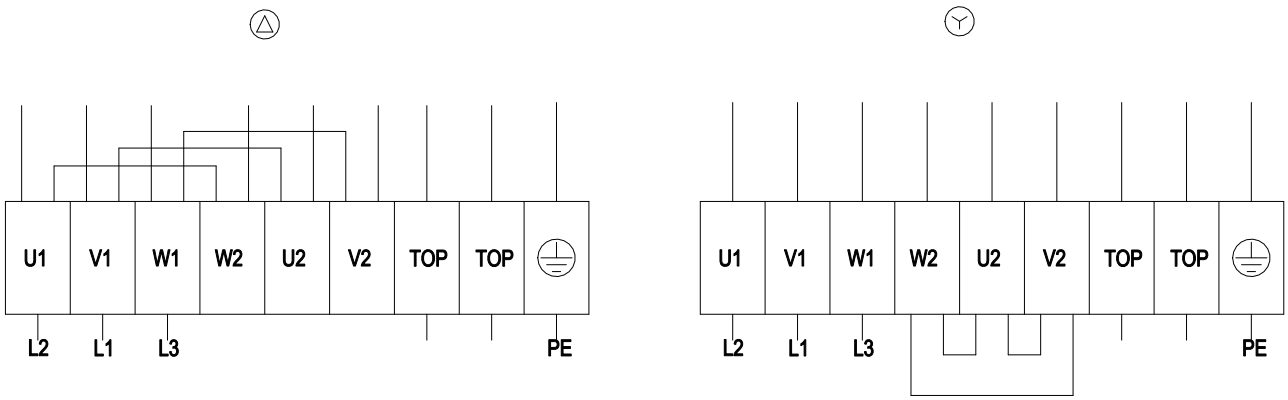
1	Direction of air flow "A"
2	Tightening torque 1.5 ± 0.2 Nm
3	Cable diameter: min. 7 mm, max. 14 mm; tightening torque 2±0.3 Nm

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Connection diagram



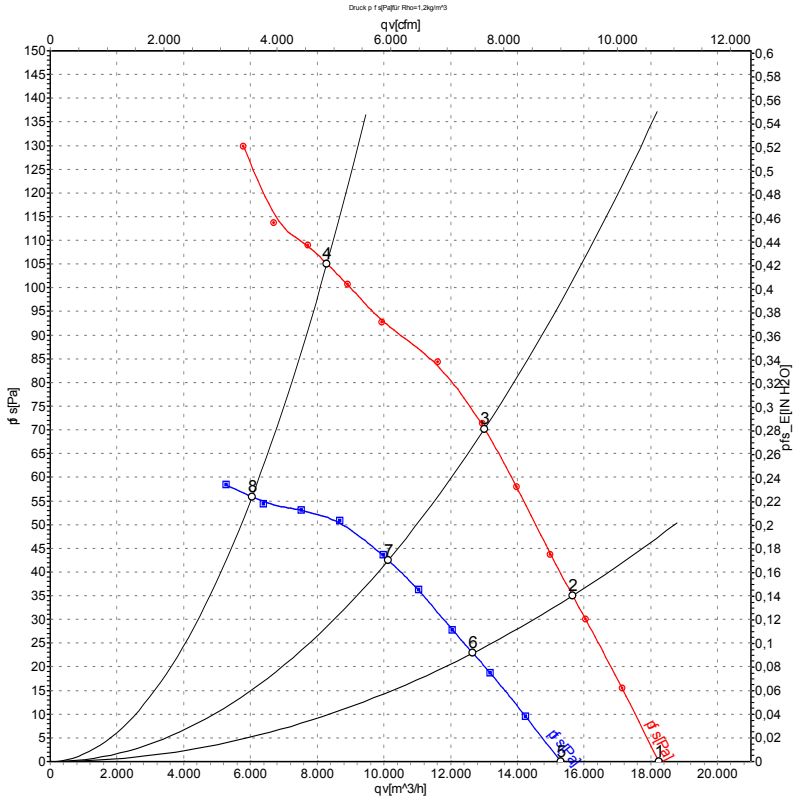
Δ	Delta connection	Y	Star connection	L1	= V1 = blue
L2	= U1 = black	L3	= W1 = brown	W2	yellow
U2	green	V2	white	TOP	2x gray
PE	green/yellow				

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Curves: Air performance 50 Hz



Measurement: LU-115898-1
Measurement: LU-115925-1

Air performance measured according to ISO 5801 installation category A. For detailed information on the measurement setup, contact ebm-papst. Intake sound level: Sound power level according to ISO 13347 / sound pressure level measured at 1 m distance from fan axis. The values given are valid under the specified measuring conditions and may vary due to conditions of installation. For deviations from the standard configuration, the parameters have to be checked on the installed unit.

Measured values

	Wired	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	inH2O
1	Δ	400	50	700	684	2.05	59	65	65	18240	0	10735	0.00
2	Δ	400	50	685	771	2.10	59	65	64	15660	35	9215	0.14
3	Δ	400	50	680	846	2.20	60	66	65	13020	70	7665	0.28
4	Δ	400	50	660	990	2.37	66	74	74	8295	105	4880	0.42
5	Y	400	50	585	466	0.98	55	61	61	15300	0	9005	0.00
6	Y	400	50	555	510	1.07	54	60	59	12660	23	7450	0.09
7	Y	400	50	530	534	1.12	53	60	59	10130	43	5960	0.17
8	Y	400	50	485	580	1.21	58	66	66	6045	56	3560	0.22

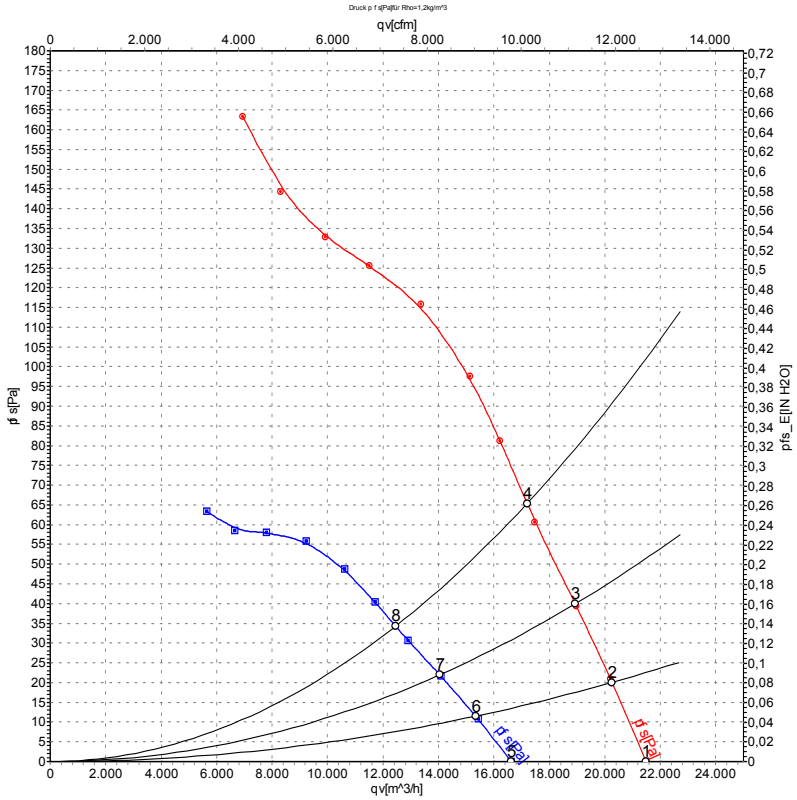
Wired = Wiring · U = Power supply · f = Frequency · n = Speed (rpm) · P_e = Power consumption · I = Current draw · LpA_{in} = Sound pressure level intake side · LwA_{in} = Sound power level intake side
LwA_{out} = Sound power level outlet side · q_V = Air flow · p_{fs} = Pressure increase

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Curves: Air performance 60 Hz



Measurement: LU-115907-1
Measurement: LU-115926-1

Air performance measured according to ISO 5801 installation category A. For detailed information on the measurement setup, contact ebm-papst. Intake sound level: Sound power level according to ISO 13347 / sound pressure level measured at 1 m distance from fan axis. The values given are valid under the specified measuring conditions and may vary due to conditions of installation. For deviations from the standard configuration, the parameters have to be checked on the installed unit.

Measured values

	Wired	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	inH2O
1	Δ	480	60	820	1067	2.29	62	69	69	21490	0	12650	0.00
2	Δ	480	60	815	1139	2.36	62	68	68	20250	20	11920	0.08
3	Δ	480	60	810	1195	2.42	62	69	68	18930	40	11140	0.16
4	Δ	480	60	800	1270	2.52	63	69	68	17200	65	10125	0.26
5	Y	480	60	640	688	1.22	57	63	62	16620	0	9780	0.00
6	Y	480	60	615	709	1.26	56	62	61	15330	12	9025	0.05
7	Y	480	60	600	728	1.29	55	62	61	14040	22	8265	0.09
8	Y	480	60	575	740	1.33	55	62	61	12460	33	7335	0.13

Wired = Wiring · U = Power supply · f = Frequency · n = Speed (rpm) · P_e = Power consumption · I = Current draw · LpA_{in} = Sound pressure level intake side · LwA_{in} = Sound power level intake side
LwA_{out} = Sound power level outlet side · q_V = Air flow · p_{fs} = Pressure increase

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