W8D500-CG01-85

AC axial fan

sickled blades (S series)

Wall ring with guard grille, Transformator fan

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Nominal data

Type	**W8D500-CG01-85**
Motor	**M8D110-EF**

Phase		3~	3~	3~	3~
Nominal voltage	VAC	230	380	400	400
Connection		Δ	Y	Δ	Y
Frequency	Hz	60	60	50	50
Type of data definition		ml	ml	ml	ml
Valid for approval / standard		CE	CE	CE	CE
Speed	min^{-1}	610	580	615	615
Power input	W	160	150	120	120
Current draw	A	0.50	0.29	0.44	0.25
Max. back pressure	Pa	37	34	34	34
Min. ambient temperature	°C	-40	-40	-40	-40
Max. ambient temperature	°C	65	65	70	70
Starting current	A			0.87	0.5

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

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Technical features

Mass	19 kg
Size	500 mm
Surface of rotor	Coated in black
Material of terminal box	PP plastic
Material of blades	Aluminium sheet, coated in black
Material of wall ring	Sheet steel, pre-galvanised and plastic-coated in cement grey (RAL 7033)
Material of guard grille	Steel, galvanised and plastic-coated in cement grey (RAL 7033)
Number of blades	5
Blade angle	0°
Direction of air flow	"A"
Direction of rotation	Clockwise, seen on rotor
Type of protection	IP 54
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 61800-5-1

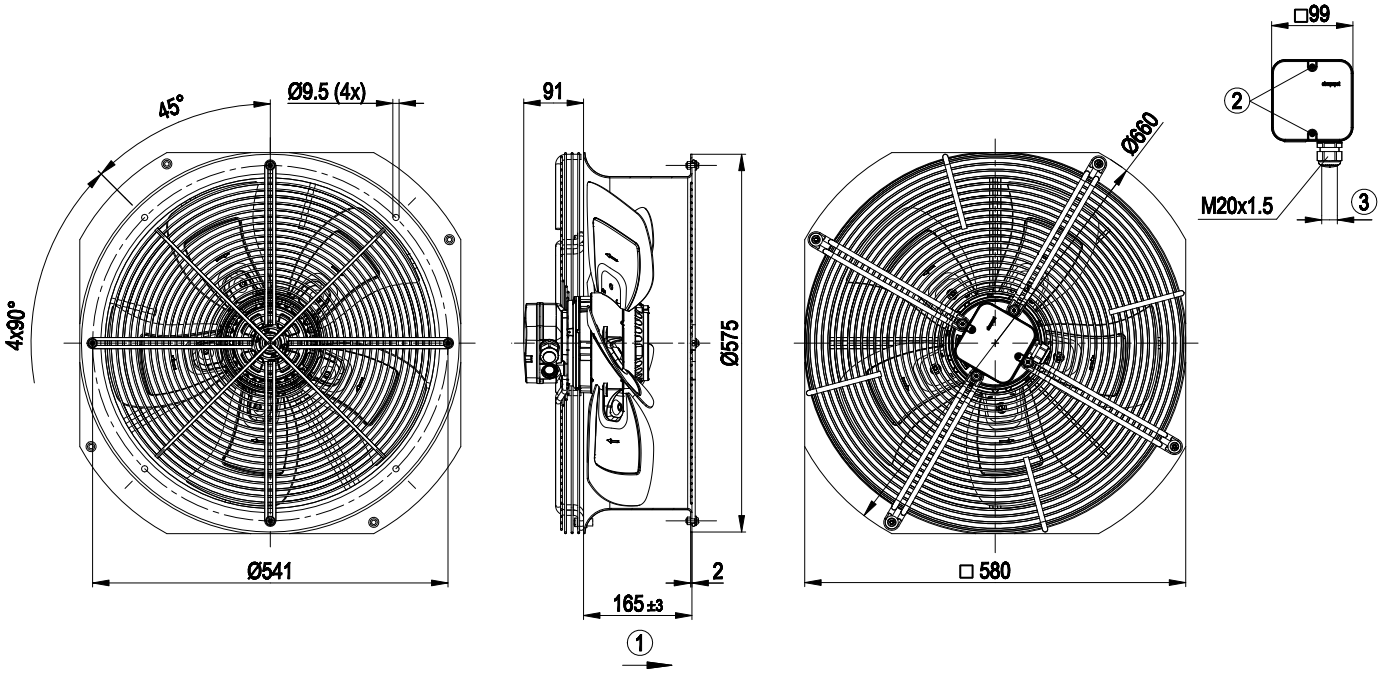
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Product drawing



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

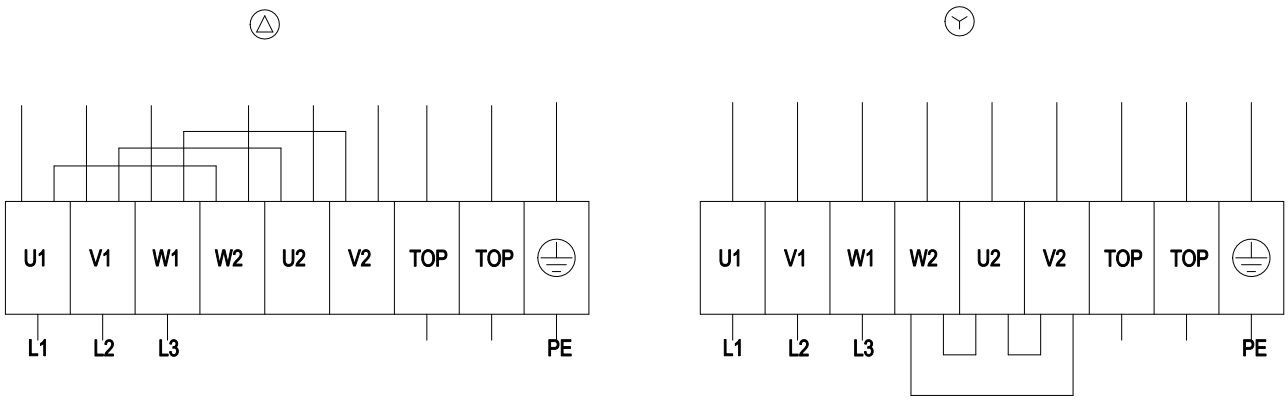
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Connection screen



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				

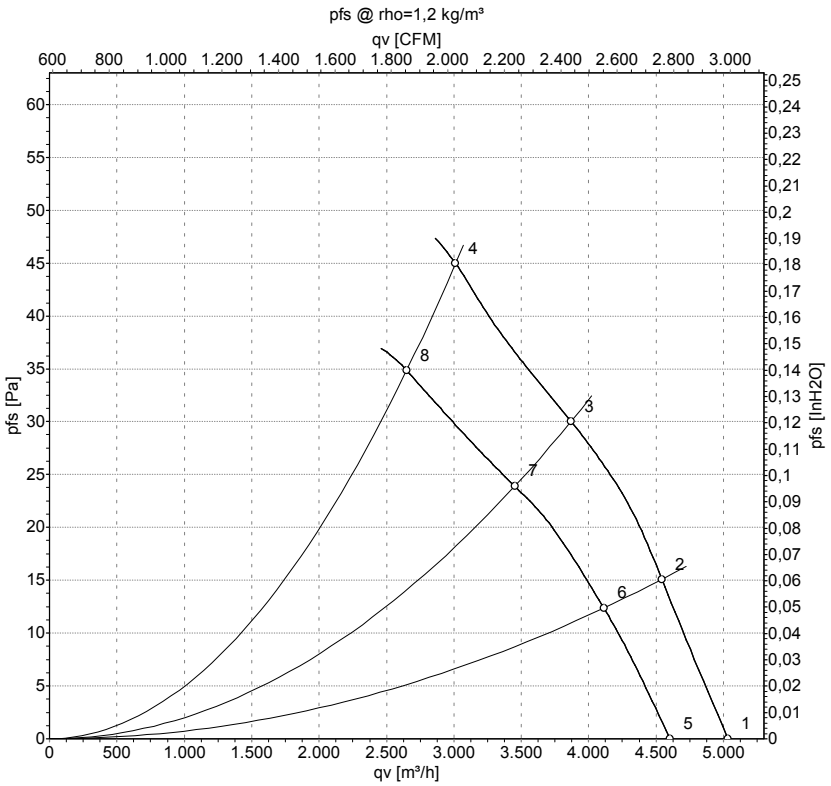
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Charts: Air flow 50 Hz



Measurement: LU-102524
Measurement: LU-102526

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	715	178	0.62	57	63	63	5035	0
2	Δ	400	50	715	186	0.61	58	64	63	4545	15
3	Δ	400	50	710	195	0.61	56	63	62	3870	30
4	Δ	400	50	700	210	0.61	57	64	64	3010	45
5	Y	400	50	655	100	0.22	55	61	61	4605	0
6	Y	400	50	645	107	0.23	56	62	62	4115	12
7	Y	400	50	630	114	0.23	53	60	59	3450	24
8	Y	400	50	615	120	0.25	54	61	61	2650	35

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

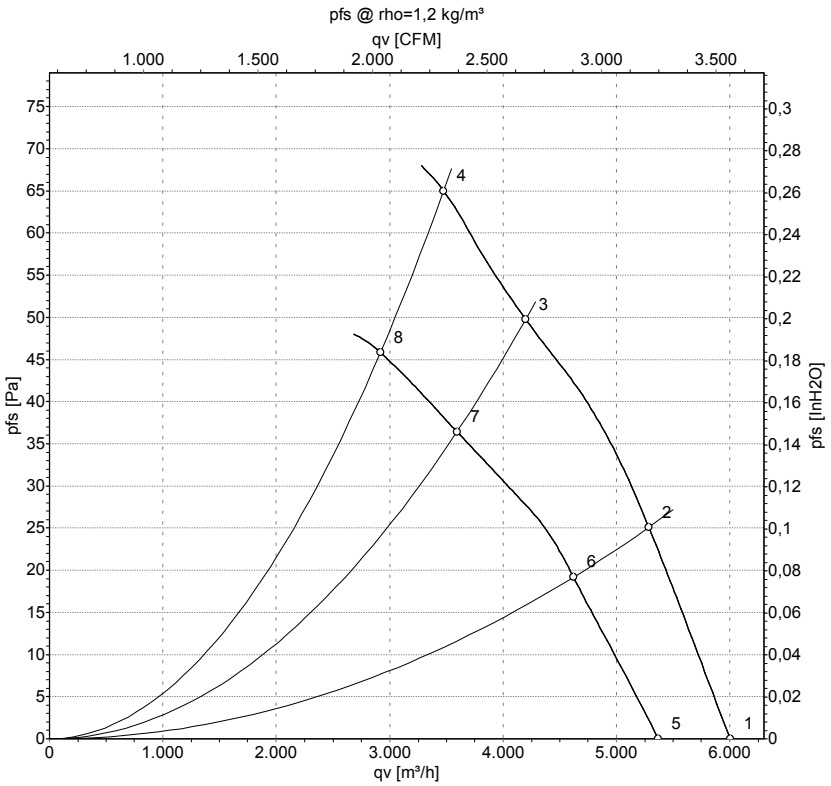
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Charts: Air flow 60 Hz



Measurement: LU-102527
Measurement: LU-102528

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	855	243	0.63	61	67	66	6005	0
2	Δ	480	60	845	262	0.62	61	68	67	5285	25
3	Δ	480	60	840	278	0.63	60	67	66	4200	50
4	Δ	480	60	830	300	0.65	62	68	68	3475	65
5	Y	480	60	760	151	0.26	58	64	64	5370	0
6	Y	480	60	740	166	0.27	59	65	65	4620	19
7	Y	480	60	720	179	0.29	56	63	62	3595	36
8	Y	480	60	700	190	0.30	57	64	64	2920	46

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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