W2D250-HH14-12

AC axial compact fan

sickle-shaped blades (S series)

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Amtsgericht (court of registration) Stuttgart · HRB 590142

Nominal data

Type	**W2D250-HH14-12**
Motor	**M2D068-CF**

Phase		3~	3~	3~
Nominal voltage	VAC	400	400	460
Wiring		Y	Y	Y
Frequency	Hz	50	60	60
Method of obtaining data		ml	ml	ml
Valid for approval/standard		CE	CE	CE
Speed (rpm)	min^{-1}	2300	2300	2500
Power consumption	W	125	165	190
Current draw	A	0.21	0.25	0.25
Max. back pressure	Pa	95	95	110
Max. back pressure	in. wg	0.38	0.38	0.44
Min. ambient temperature	°C	-25	-25	-25
Max. ambient temperature	°C	85	60	60

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

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Technical description

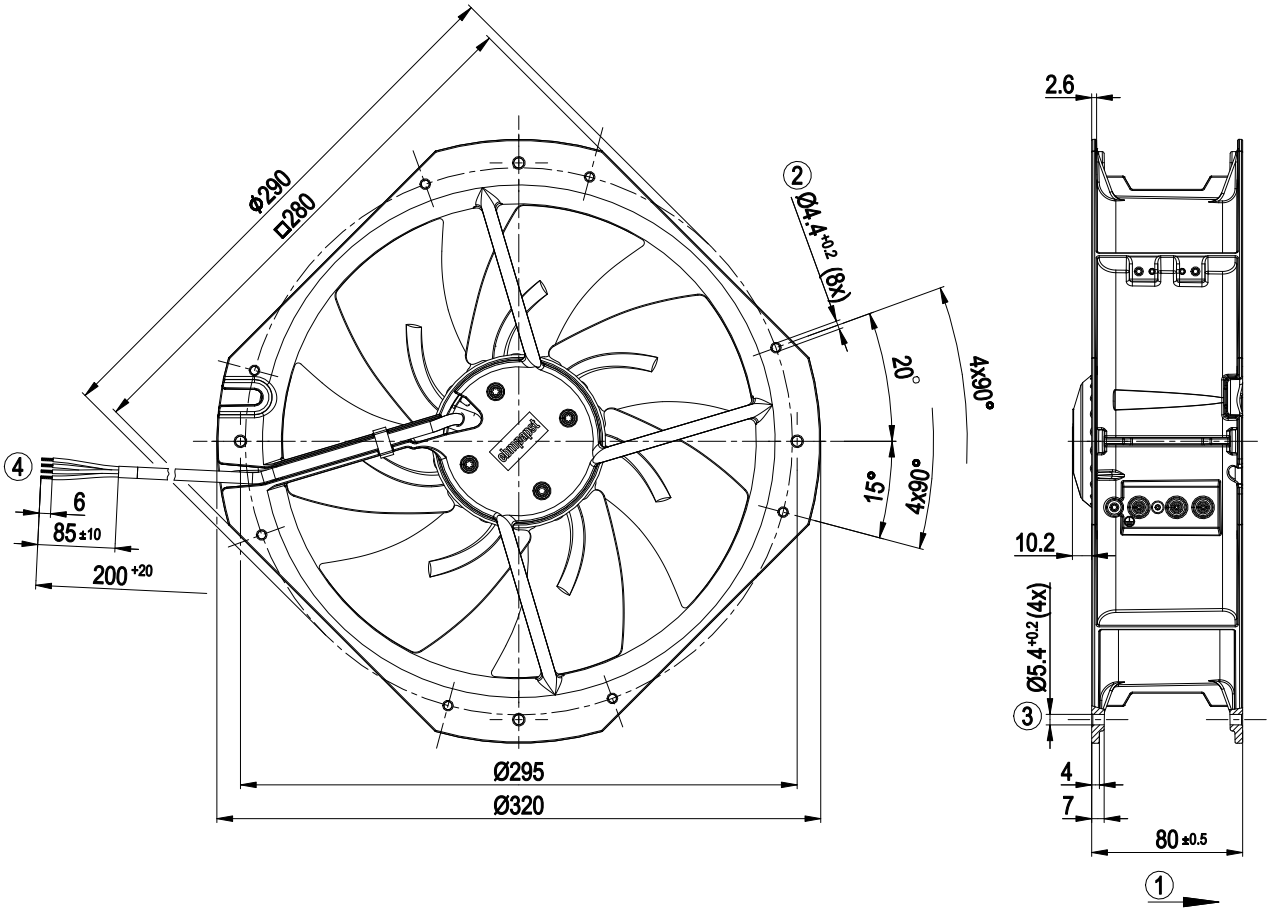
Weight	2.7 kg
Size	250 mm
Motor size	68
Rotor surface	Painted black
Blade material	Sheet steel, painted black
Fan housing material	Die-cast aluminum
Number of blades	7
Airflow direction	V
Direction of rotation	Counterclockwise, viewed toward rotor
Degree of protection	IP54
Insulation class	"F"
Moisture (F) / Environmental (H) protection class	H2
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	None
Mode	S1
Motor bearing	Ball bearing made of stainless steel; (sealed)
Touch current according to IEC 60990 (measuring circuit Fig. 4, TN system)	< 0.75 mA
Electrical hookup	Terminal strip
With cable	Variable
Protection class	I (with customer connection of protective earth)
Conformity with standards	EN 60034-1; EN 60204-1; EN 60335-1; CE
Approval	CCC; EAC; CSA C22.2 No. 100; UL 1004-1

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Product drawing



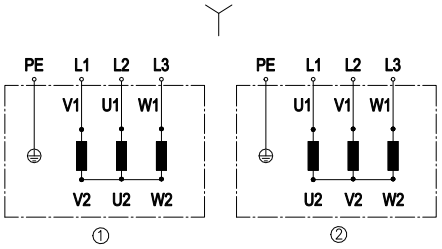
1	Airflow direction "V"
2	For self-tapping M5 screws
3	For self-tapping M6 screws
4	Cable PFA AWG20 (green/yellow AWG18)
	4x splice

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Connection diagram



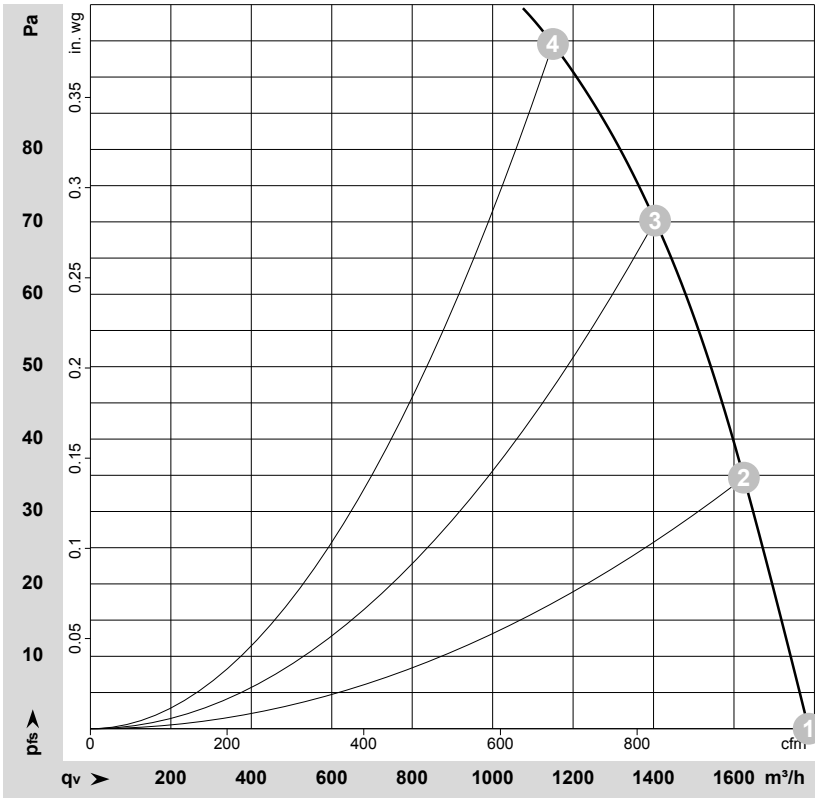
	Three-phase motor
Y	Star connection
1	Counterclockwise operation
L1	= V1 = blue
L2	= U1 = black
L3	= W1 = brown
2	Clockwise operation
L1	= V1 = black
L2	= U1 = blue
L3	= W1 = brown
PE	green/yellow

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Curves: Air performance 50 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-181932-1

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	q_V	p_{fs}	q_V	p_{fs}
		V	Hz	min^{-1}	W	A	m^3/h	Pa	cfm	in. wg
1	Y	400	50	2495	100	0.18	1785	0	1050	0.00
2	Y	400	50	2430	109	0.19	1625	35	955	0.14
3	Y	400	50	2355	118	0.20	1405	70	825	0.28
4	Y	400	50	2300	125	0.21	1150	95	675	0.38

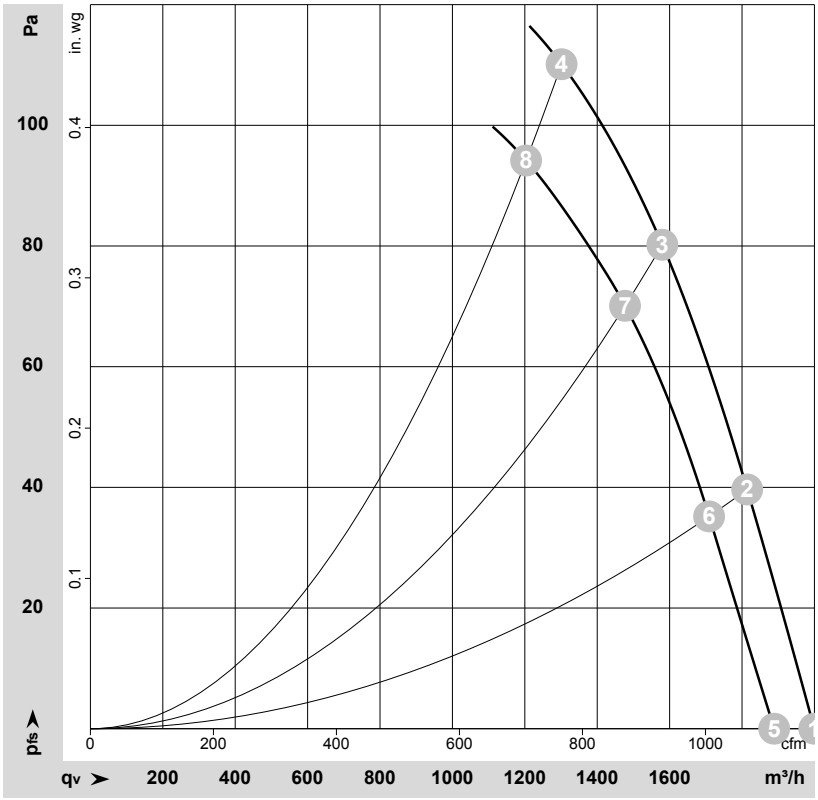
Wired = Wiring · U = Voltage · f = Frequency · n = Speed (rpm) · P_e = Power consumption · I = Current draw · q_V = Air flow · p_{fs} = Pressure increase

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Curves: Air performance 60 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-181945-1
Measurement: LU-181944-1

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	q_V	p_{fs}	q_V	p_{fs}
		V	Hz	min^{-1}	W	A	m^3/h	Pa	cfm	in. wg
1	Y	460	60	2790	152	0.22	2000	0	1175	0.00
2	Y	460	60	2690	165	0.23	1815	40	1070	0.16
3	Y	460	60	2600	177	0.25	1580	80	930	0.32
4	Y	460	60	2500	190	0.25	1300	110	765	0.44
5	Y	400	60	2640	137	0.22	1890	0	1110	0.00
6	Y	400	60	2530	147	0.23	1710	35	1005	0.14
7	Y	400	60	2430	156	0.25	1475	70	870	0.28
8	Y	400	60	2300	165	0.25	1205	95	710	0.38

Wired = Wiring · U = Voltage · f = Frequency · n = Speed (rpm) · P_e = Power consumption · I = Current draw · q_V = Air flow · p_{fs} = Pressure increase

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