W2D250-CI14-09

AC axial fan

sickle-shaped blades (S series)

Fan housing with guard grille

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Nominal data

Type	**W2D250-CI14-09**
Motor	**M2D068-CF**

Phase		3~	3~	3~	3~	3~	3~	3~	3~	3~	3~
Nominal voltage	VAC	208	220	220	230	230	265	360	380	380	400
Wiring		Δ	Δ	Δ	Δ	Δ	Δ	Y	Y	Y	Y
Frequency	Hz	60	50	60	50	60	60	60	50	60	50
Method of obtaining data		fa	fa	fa	fa	fa	fa	fa	fa	fa	fa
Valid for approval/standard		CE	CE	CE	CE	CE	CE	CE	CE	CE	CE
Speed (rpm)	min^{-1}	2350	2370	2440	2460	2580	2750	2350	2370	2440	2460
Power consumption	W	128	102	135	110	140	160	128	102	135	110
Current draw	A	0.40	0.33	0.40	0.33	0.38	0.40	0.23	0.19	0.23	0.19
Max. back pressure	Pa	84	93	93	100	100	120	84	93	93	100
Max. back pressure	inH2O	0.34	0.37	0.37	0.4	0.4	0.48	0.34	0.37	0.37	0.4
Min. ambient temperature	°C	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25
Max. ambient temperature	°C	60	80	60	80	60	60	60	80	60	80

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	3.3 kg
Fan size	250 mm
Rotor surface	Painted black
Terminal box material	ABS plastic
Blade material	Sheet steel, painted black
Fan housing material	Sheet steel, pre-galvanized, primed and coated with black plastic (RAL 9005)
Guard grille material	Steel, coated with black plastic (RAL 9005)
Number of blades	9
Airflow direction	"A"
Direction of rotation	Counterclockwise, viewed toward rotor
Degree of protection	IP44; installation- and position-dependent as per EN 60034-5
Insulation class	"F"
Moisture (F) / Environmental (H) protection class	F2-2
Max. permitted ambient temp. for motor (transport/storage)	+ 80 °C
Min. permitted ambient temp. for motor (transport/storage)	- 40 °C
Installation position	Shaft horizontal or rotor on bottom; rotor on top on request
Condensation drainage holes	On rotor side
Mode	S1
Motor bearing	Ball bearing
Touch current according to IEC 60990 (measuring circuit Fig. 4, TN system)	< 0.75 mA
Electrical hookup	Via terminal box
With cable	Axial
Protection class	I (with customer connection of protective earth)
Conformity with standards	EN 60335-1; CE
Approval	UL 1004-1; CSA C22.2 No. 100

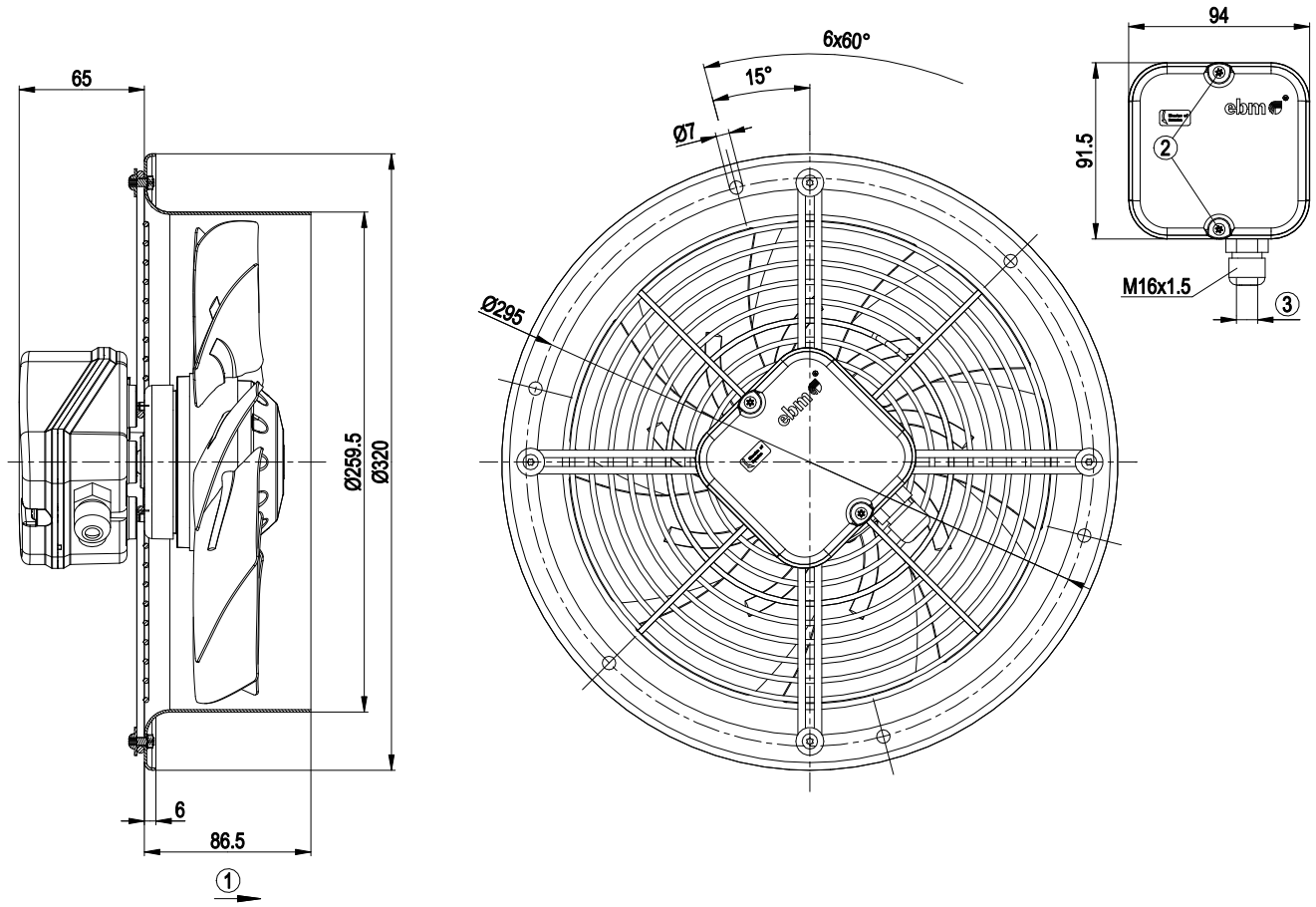
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Product drawing



1	Direction of air flow "A"
2	Tightening torque 0.5 ± 0.1 Nm
3	Cable diameter: max. 10 mm, tightening torque 1.3 ± 0.2 Nm

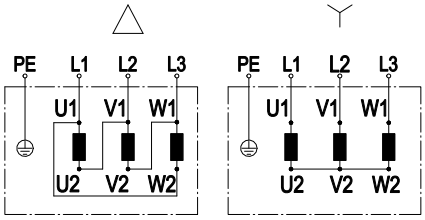
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Connection diagram



Change of rotation direction by reversing two phases

	Three-phase motor	Δ	Delta connection	Y	Star connection
L1	= U1 = black	L2	= V1 = blue	L3	= W1 = brown
U2	green	V2	white	W2	yellow
PE	green/yellow				

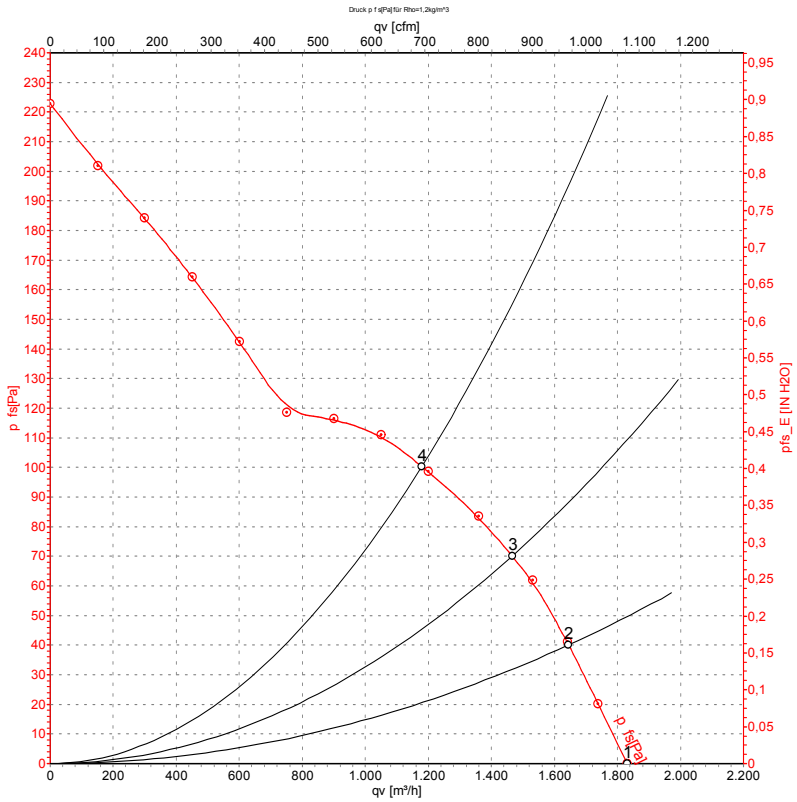
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Curves: Air performance 50 Hz Y



Measurement: LU-76487-1

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	inH2O
1	Y	400	50	2460	110	0.19	1830	0	1080	0.00
2	Y	400	50	2395	113	0.20	1645	40	970	0.16
3	Y	400	50	2350	120	0.21	1465	70	865	0.28
4	Y	400	50	2290	126	0.22	1180	100	695	0.40

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

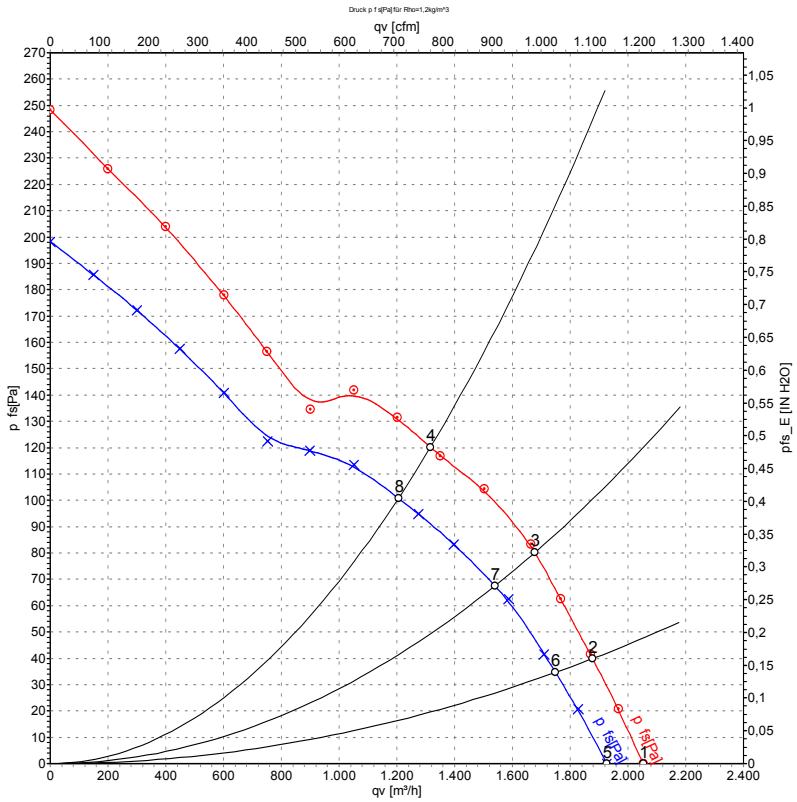
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Curves: Air performance 60 Hz Y



Measurement: LU-76489-1
Measurement: LU-76488-1

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	inH2O
1	Y	460	60	2750	160	0.23	2055	0	1210	0.00
2	Y	460	60	2690	165	0.24	1875	40	1105	0.16
3	Y	460	60	2600	177	0.25	1675	80	985	0.32
4	Y	460	60	2515	187	0.26	1315	120	775	0.48
5	Y	400	60	2580	140	0.22	1925	0	1135	0.00
6	Y	400	60	2500	145	0.23	1750	35	1030	0.14
7	Y	400	60	2405	154	0.24	1540	68	905	0.27
8	Y	400	60	2310	161	0.26	1205	100	710	0.40

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

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