W2E250-CM86-09

AC axial fan

sickle-shaped blades (S series)

Fan housing with guard grille

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Nominal data

Type	**W2E250-CM86-09**
Motor	**M2E068-CF**

Phase		1~	1~
Nominal voltage	VAC	115	115
Frequency	Hz	50	60
Method of obtaining data		ml	ml
Valid for approval/standard		CE	CE
Speed (rpm)	min^{-1}	2370	2400
Power consumption	W	130	175
Current draw	A	1.15	1.55
Capacitor	µF	12	12
Capacitor voltage	VDB	220	220
Capacitor standard		S0 (CE)	S0 (CE)
Max. back pressure	Pa	100	100
Max. back pressure	inH2O	0.4	0.4
Min. ambient temperature	°C	-25	-25
Max. ambient temperature	°C	80	65

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	3.4 kg
Fan size	250 mm
Rotor surface	Painted black
Terminal box material	PC/ABS plastic
Blade material	Sheet steel, painted black
Fan housing material	Sheet steel, pre-galvanized 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	H0+
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, capacitor integrated and connected
Motor protection	Thermal overload protector (TOP) internally connected
With cable	Variable
Protection class	I (with customer connection of protective earth)
Motor capacitor according to EN 60252-1 in safety protection class	S0
Conformity with standards	EN 60335-1; CE
Approval	CSA C22.2 No. 100; UL 1004-1

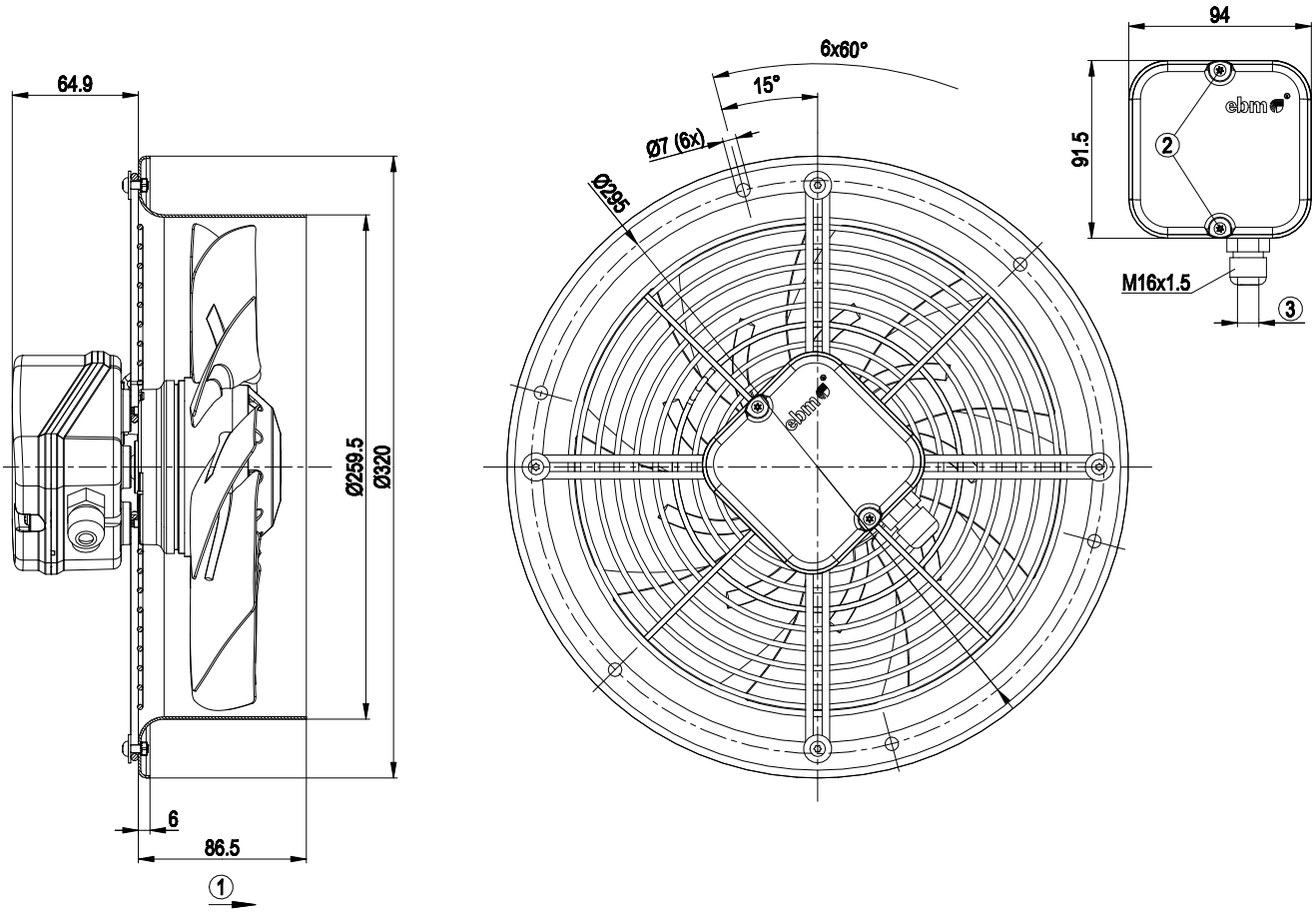
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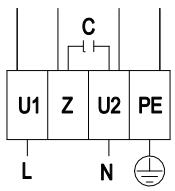
Fan housing with guard grille

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

Connection diagram



L	= U1 = blue	Z	brown	N	= U2 = black
PE	green/yellow				

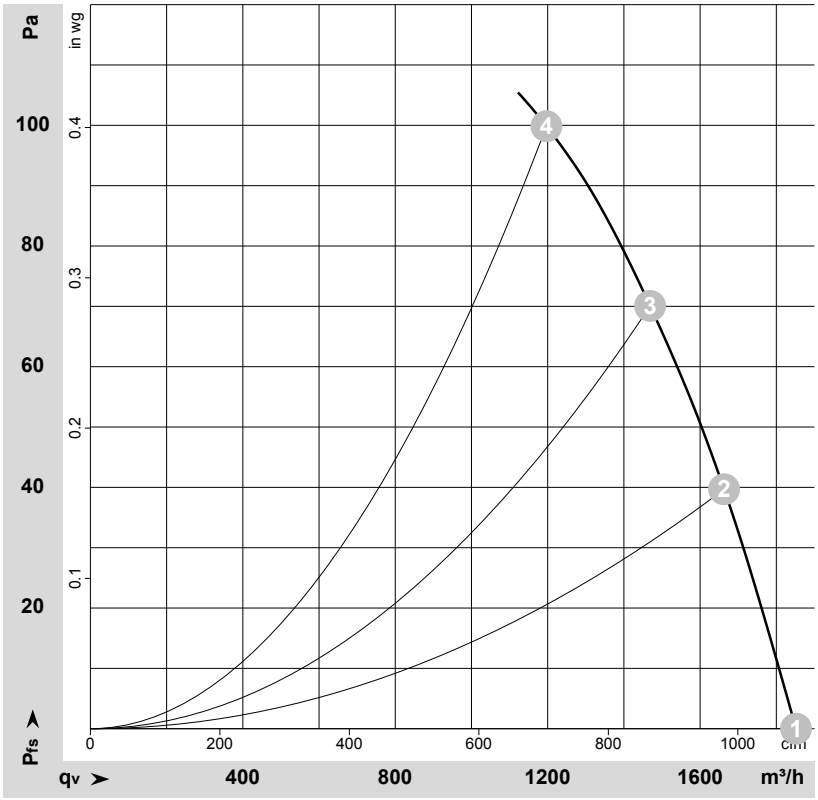
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Curves: Air performance 50 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-73684-1

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

	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	115	50	2550	110	0.96	1850	0	1090	0.00
2	115	50	2485	120	1.04	1665	40	980	0.16
3	115	50	2430	126	1.09	1470	70	865	0.28
4	115	50	2370	130	1.15	1195	100	705	0.40

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

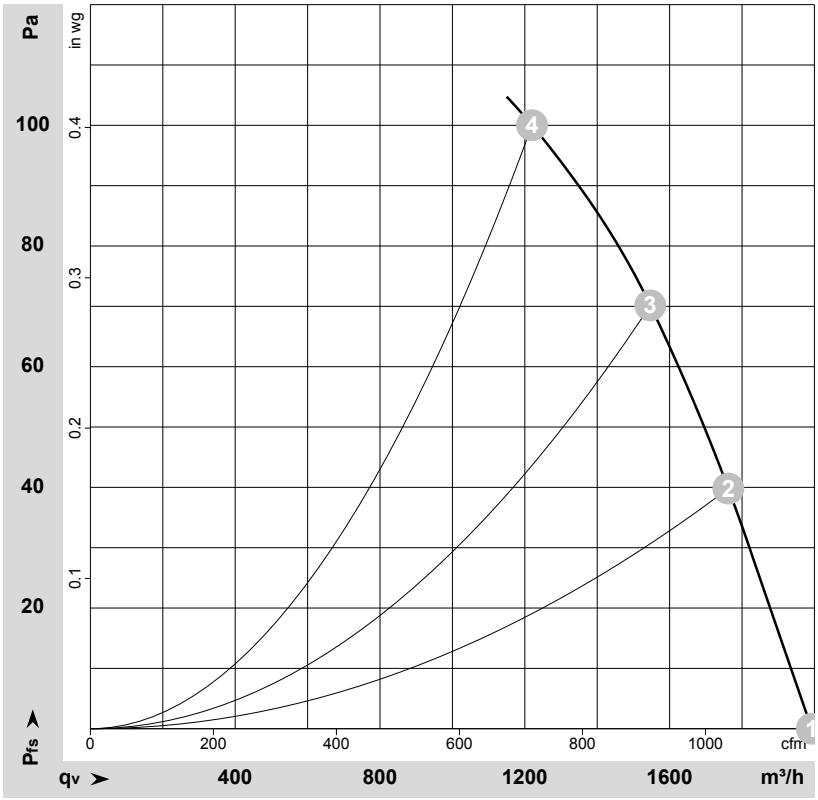
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Curves: Air performance 60 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-73685-1

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

	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	115	60	2700	160	1.40	1995	0	1175	0.00
2	115	60	2600	166	1.44	1760	40	1035	0.16
3	115	60	2505	170	1.47	1545	70	910	0.28
4	115	60	2400	175	1.55	1220	100	720	0.40

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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