W4S250-CA20-56

AC axial fan

straight blades (A series)

Fan housing with guard grille

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Nominal data

Type	**W4S250-CA20-56**
Motor	**M4S068-CF**

Phase		1~	1~
Nominal voltage	VAC	115	115
Frequency	Hz	60	60
Method of obtaining data		fa	fa
Valid for approval/standard		CE	UL 2111
Speed (rpm)	min^{-1}	1550	1550
Power consumption	W	75	80
Current draw	A	1.1	1.12
Min. ambient temperature	°C	-25	-25
Max. ambient temperature	°C	40	40

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	2.9 kg
Fan size	250 mm
Rotor surface	Painted black
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	5
Airflow direction	"V"
Direction of rotation	Counterclockwise, viewed toward rotor
Degree of protection	IP44; installation- and position-dependent as per EN 60034-5
Insulation class	"B"
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
Motor protection	Thermal overload protector (TOP) internally connected
With cable	Lateral
Protection class	I (with customer connection of protective earth)
Conformity with standards	EN 60335-1; CE
Approval	UL 507; CSA C22.2 No. 113

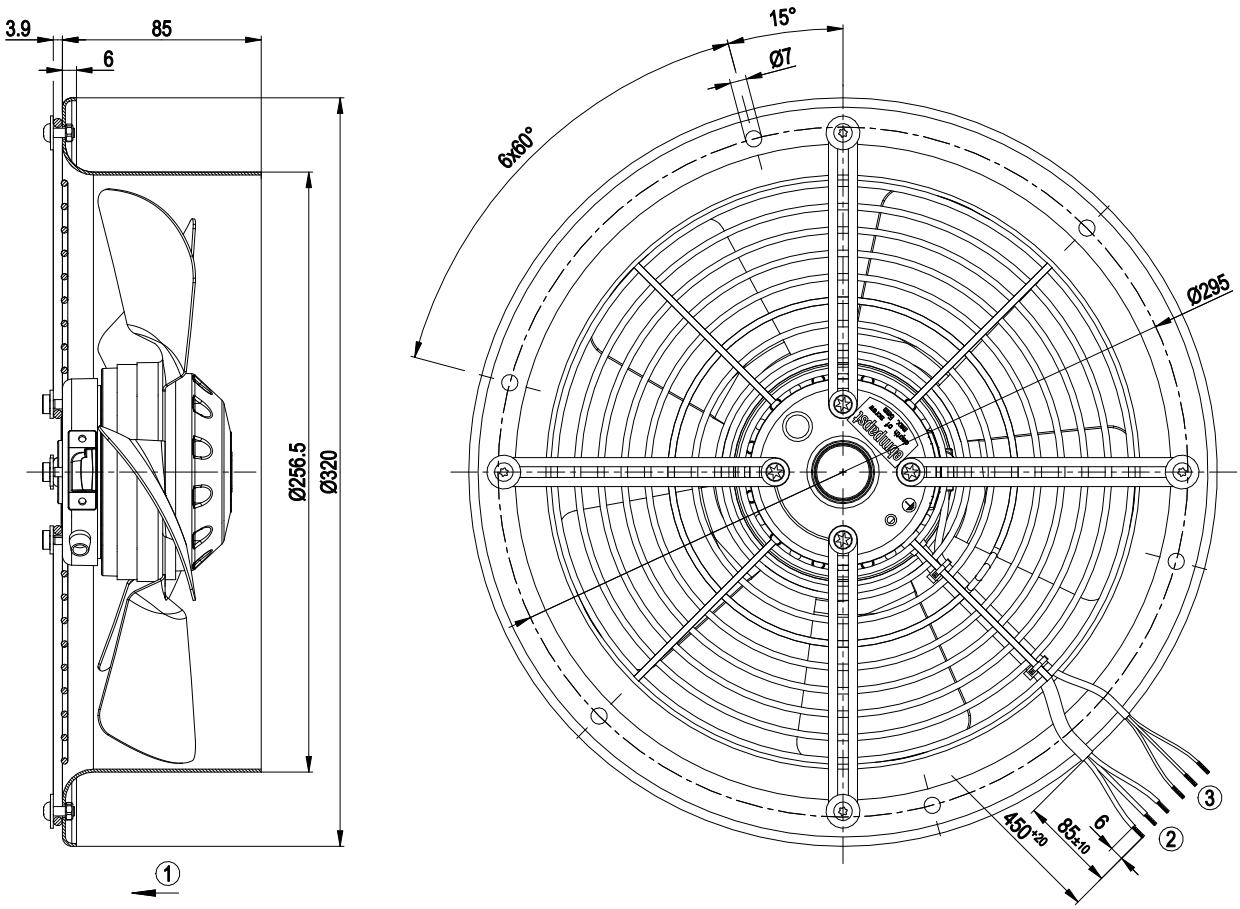
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Product drawing



1	Direction of air flow "V"
2	Cable PVC AWG20, 3x crimped splices
3	Cable Raychem AWG24, 3x crimped splices

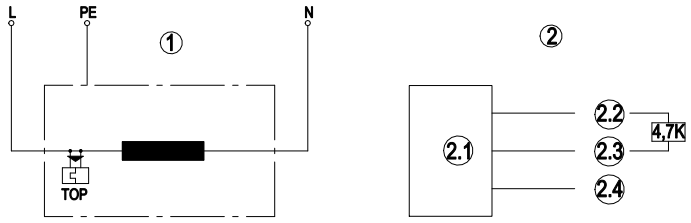
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Connection diagram



1	Fan connection diagram
L	blue
N	brown
PE	green/yellow
TOP	Thermal overload protector
2	Hall IC circuit
2.1	Hall IC
2.2	red (+5 V)
2.3	white (out)
2.4	black (0 V)

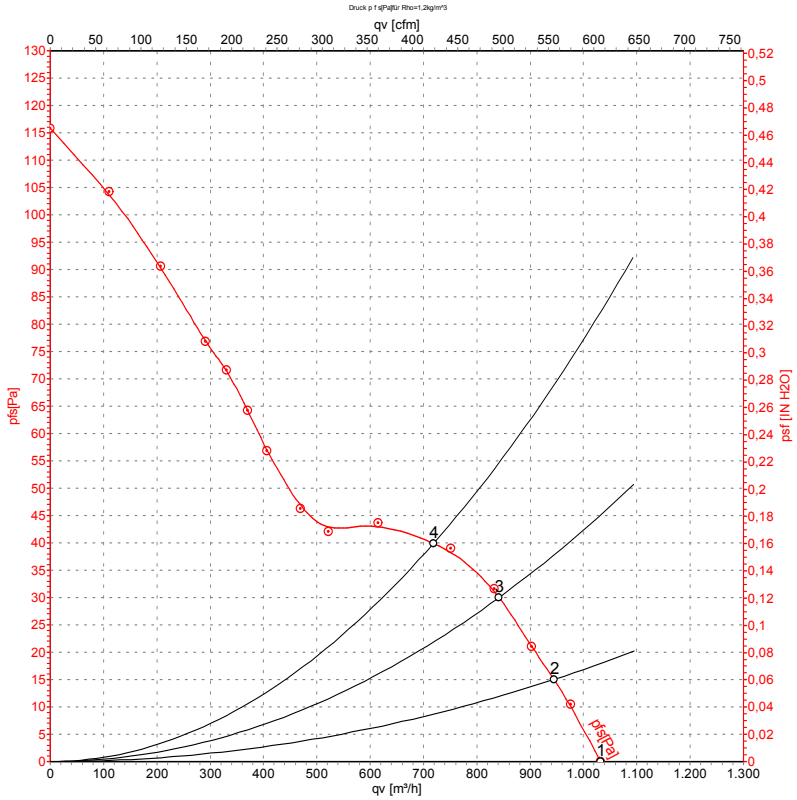
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Curves: Air performance 60 Hz



Measurement: LU-55103-1

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	qv	p_{fs}	qv	p_{fs}
	V	Hz	min^{-1}	W	A	m^3/h	Pa	CFM	inH2O
1	115	60	1600	63	0.87	1030	0	605	0.00
2	115	60	1575	65	0.89	945	15	555	0.06
3	115	60	1560	66	0.90	840	30	495	0.12
4	115	60	1560	66	0.90	720	40	425	0.16

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

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