8300100107

VBS0220RSLDZ

EC centrifugal fan - RadiCal

backward-curved, single-intake

Limited partnership · Headquarters Mulfingen
Amtsgericht (court of registration) Stuttgart · HRA 590344

General partner Elektrobau Mulfingen GmbH · Headquarters Mulfingen
Amtsgericht (court of registration) Stuttgart · HRB 590142

Nominal data

Item	**8300100107**
Motor	**E06001-17**

Phase		1~
Nominal voltage	VAC	230
Nominal voltage range	VAC	200 .. 240
Frequency	Hz	50/60
Method of obtaining data		ml
Speed (rpm)	min^{-1}	2500
Power consumption	W	82
Current draw	A	0.67
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	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	1.1 kg
Size	220 mm
Motor size	60
Rotor surface	Thick-film passivated
Electronics housing material	Die-cast aluminum
Impeller material	PP plastic
Number of blades	7
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	IP54
Insulation class	"B"
Moisture (F) / Environmental (H) protection class	H1
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, open rotor
Mode	S1
Motor bearing	Ball bearing
Technical features	- Output 10 VDC, max. 1.1 mA - Locked-rotor detection - Tach output - Speed control - Power limiter - Motor current limitation - Soft start - Control input 0-10 VDC / PWM - Control interface with SELV potential safely disconnected from the mains - Overvoltage detection - Thermal overload protection for electronics/motor - Line undervoltage detection
Touch current according to IEC 60990 (measuring circuit Fig. 4, TN system)	<= 3.5 mA
Motor protection	Electronic motor protection
With cable	Variable
Protection class assignment	I; If a protective earth is connected by the customer This component for installation may have several local protection classes. This information relates to this component's basic design. The final protection class is based on the component's intended installation and connection.
Conformity with standards	EN 60034-1; EN 60204-1; EN 60335-1; CE

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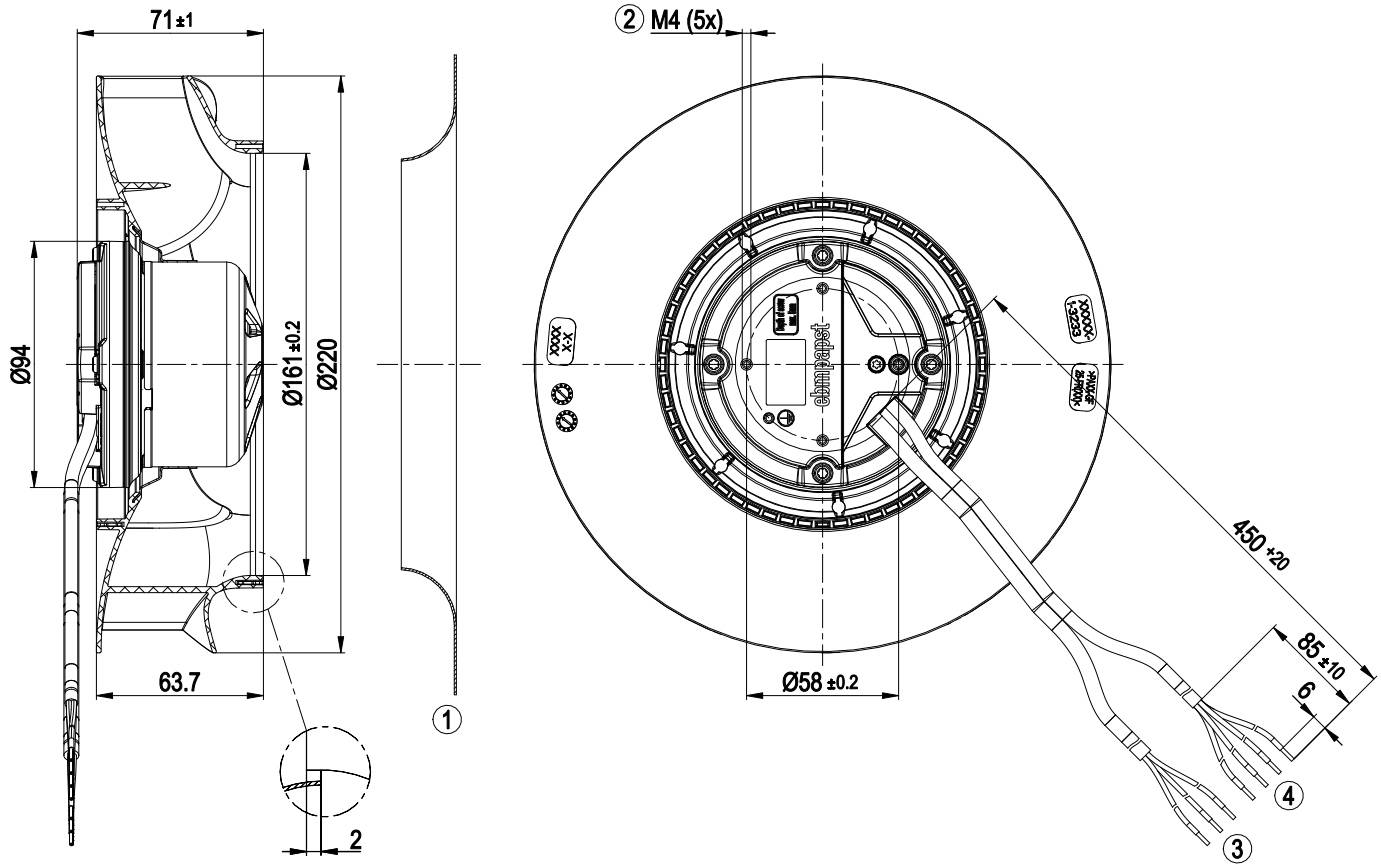
Product drawing



1	Accessory part: Inlet ring 09609-2-4013 (not included in scope of delivery)
2	Max. clearance for screw 5 mm
3	Supply line (PWR) PVC AWG20
	3x splice
4	Control wire (CTRL) PVC AWG22
	4x splice

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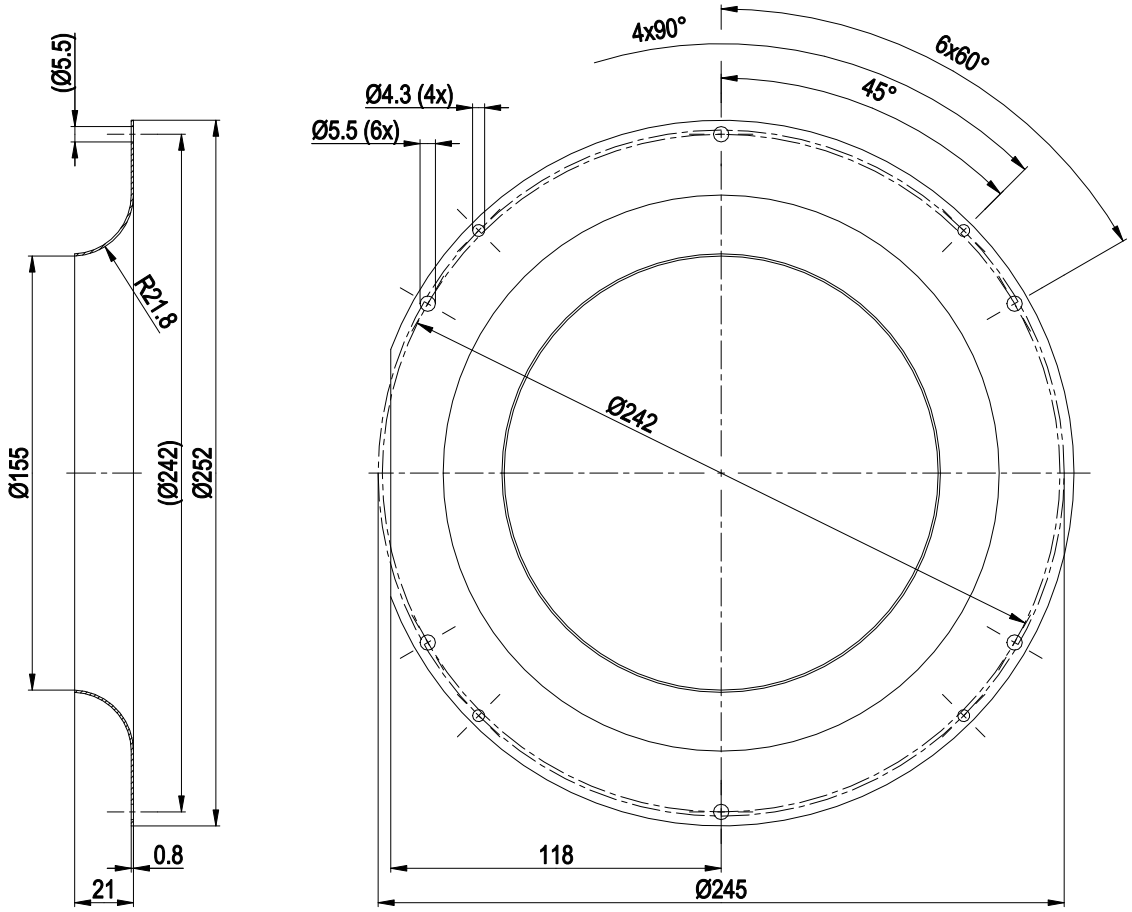
Accessory part



Inlet ring 09609-2-4013

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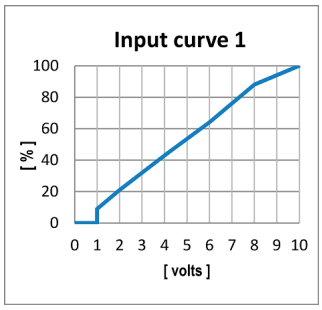
Connection diagram



No.	Conn.	Designation	Color	Function/assignment
	PWR	L	black	Power supply, phase, see nameplate for voltage range
	PWR	N	blue	Power supply, neutral conductor, see nameplate for voltage range
	PWR	PE	green/yellow	Protective earth
				-
	CTRL	GND	blue	Reference ground for control interface, SELV
	CTRL	IO1	yellow	Function parameterizable Factory setting: Analog input 0-10 V/PWM, Ri=100 kΩ fPWM=1 kHz..10 kHz, function: Speed set value Characteristic curve parameterizable (see input characteristic curve “Input curve 1”), SELV
	CTRL	IO2	white	Function parameterizable Factory setting: Open collector output, Umax=50 VDC, Imax=10 mA, function: Tach output 1 pulse/revolution, SELV
	CTRL	Vout	red	Voltage output 10 VDC +/-3%, Imax=1.1 mA Not short-circuit-proof, power supply for external devices, SELV

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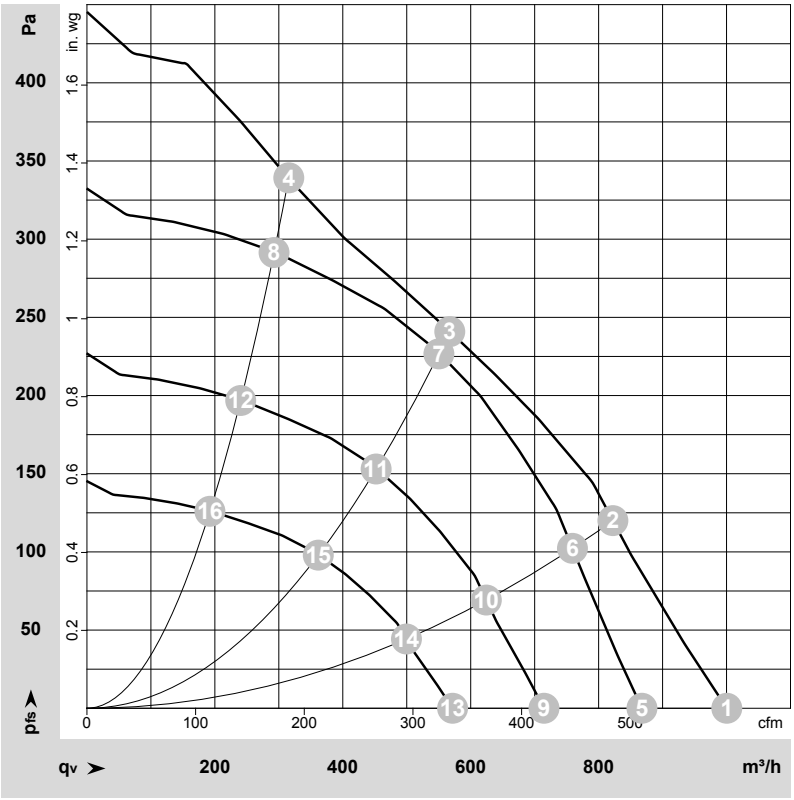
Curves: Air performance 50 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-214258-1

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	1~	230	50	2800	82	0.67	1000	0	590	0.00
2	1~	230	50	2635	82	0.67	820	120	485	0.48
3	1~	230	50	2500	82	0.67	565	240	335	0.96
4	1~	230	50	2620	82	0.67	315	340	185	1.36
5	1~	230	50	2440	56	0.47	870	0	510	0.00
6	1~	230	50	2440	66	0.55	760	102	445	0.41
7	1~	230	50	2440	76	0.63	550	227	325	0.91
8	1~	230	50	2440	67	0.56	295	292	170	1.17
9	1~	230	50	2000	30	0.24	715	0	420	0.00
10	1~	230	50	2000	36	0.29	625	69	365	0.28
11	1~	230	50	2000	42	0.34	450	154	265	0.62
12	1~	230	50	2000	37	0.30	240	197	140	0.79
13	1~	230	50	1600	15	0.12	570	0	335	0.00
14	1~	230	50	1600	18	0.15	500	44	295	0.18
15	1~	230	50	1600	21	0.17	360	98	215	0.39
16	1~	230	50	1600	19	0.15	190	126	115	0.51

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