8300100453

VBS0190RSLBZ

EC centrifugal fan - RadiCal

backward-curved, single-intake

8300100453 ebmpapst Datasheet

sales@fansco.com

www.fansco.com

Nominal data

Item	**8300100453**
Motor	**E06001-10**

Phase		1~
Nominal voltage	VAC	230
Nominal voltage range	VAC	200 .. 240
Frequency	Hz	50/60
Method of obtaining data		ml
Status		prelim.
Speed (rpm)	min^{-1}	3150
Power consumption	W	81
Current draw	A	0.65
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

Size	190 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; (sealed, without air gap)
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
EMC immunity to interference	According to EN 61000-6-2 (industrial environment)
EMC circuit feedback	According to EN 61000-3-2/3
EMC interference emission	According to EN 61000-6-3 (household environment)
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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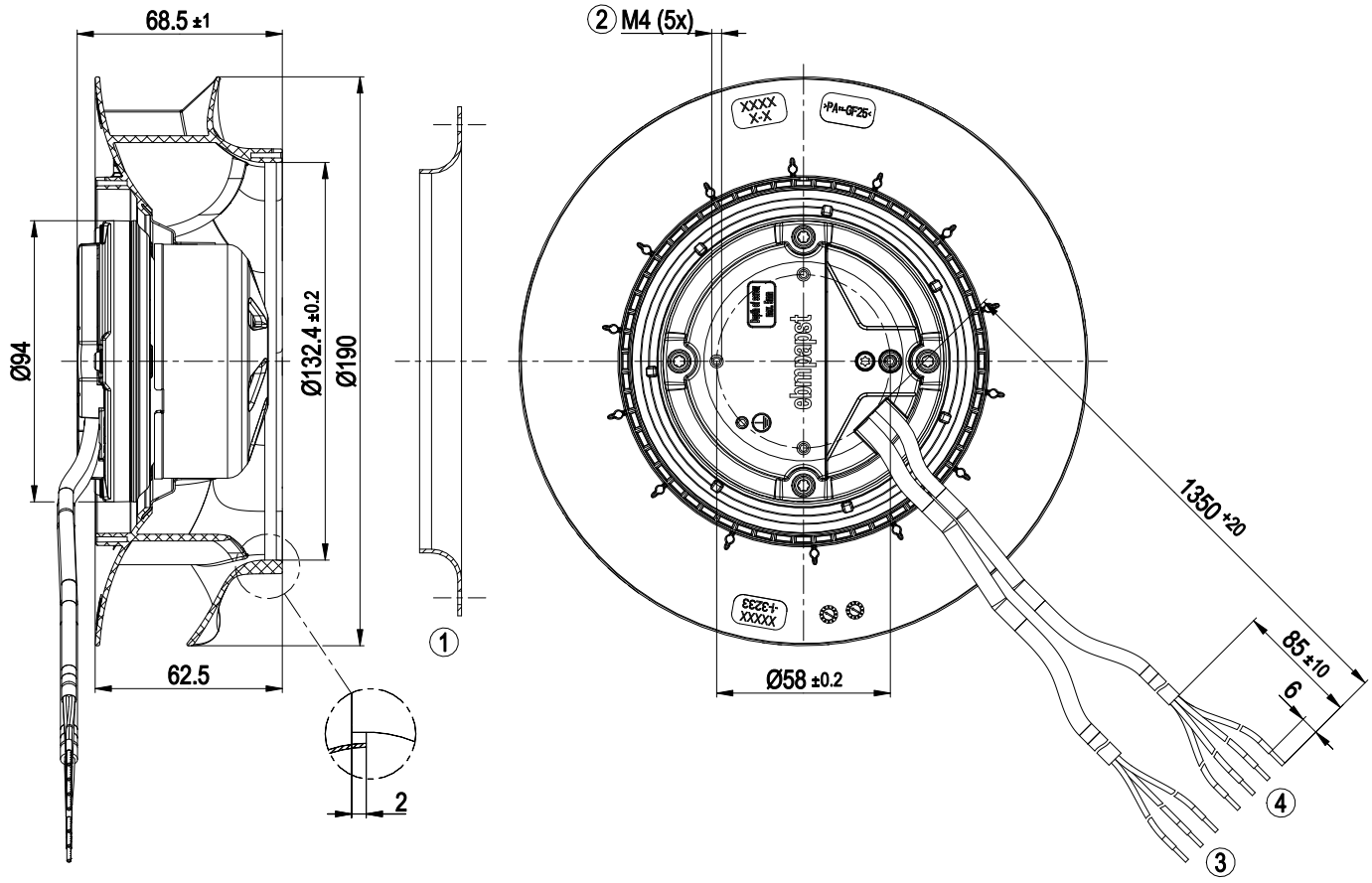
Product drawing



1	Accessory part: inlet ring 09576-2-4013 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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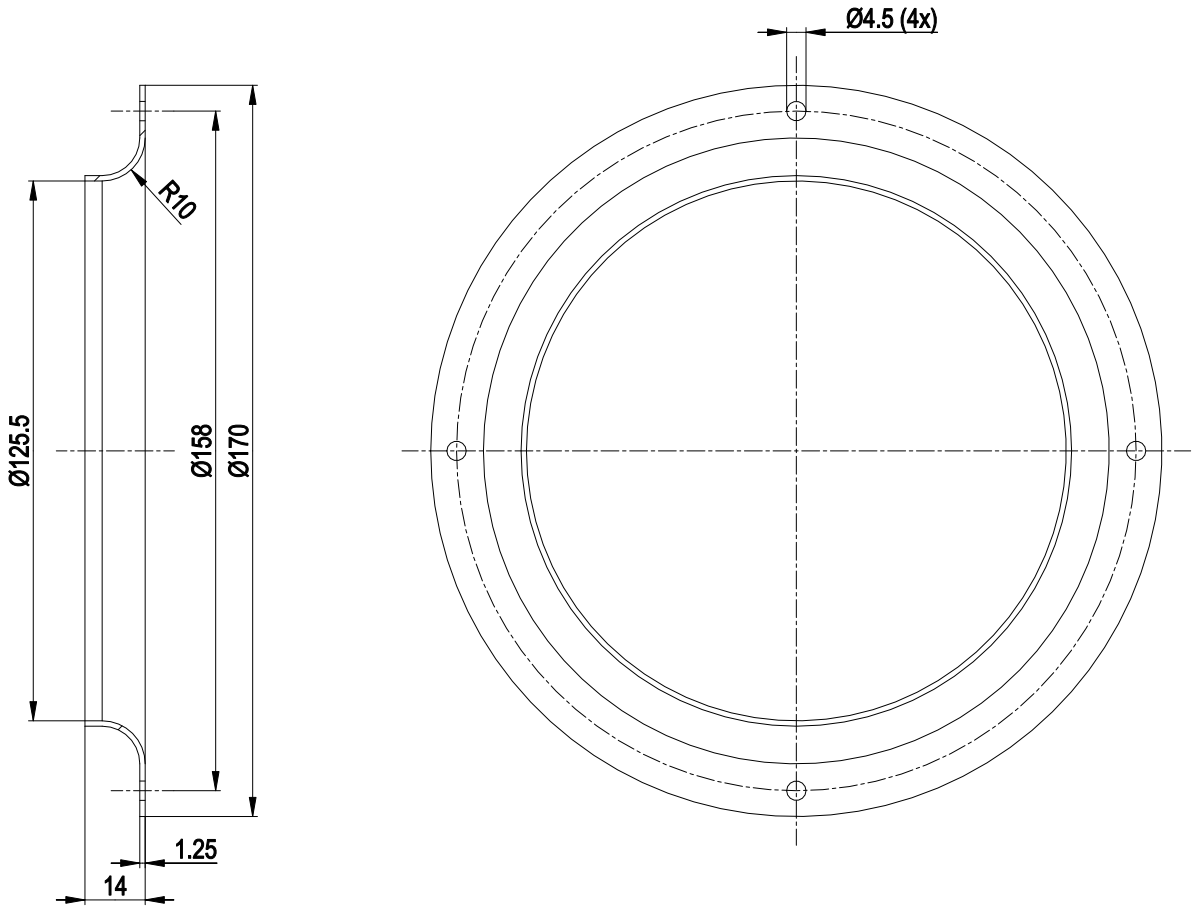
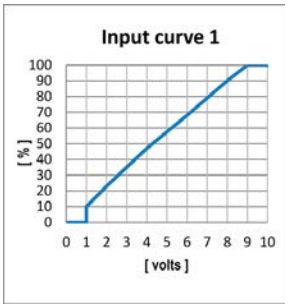
Accessory part



	Inlet ring 09576-2-4013

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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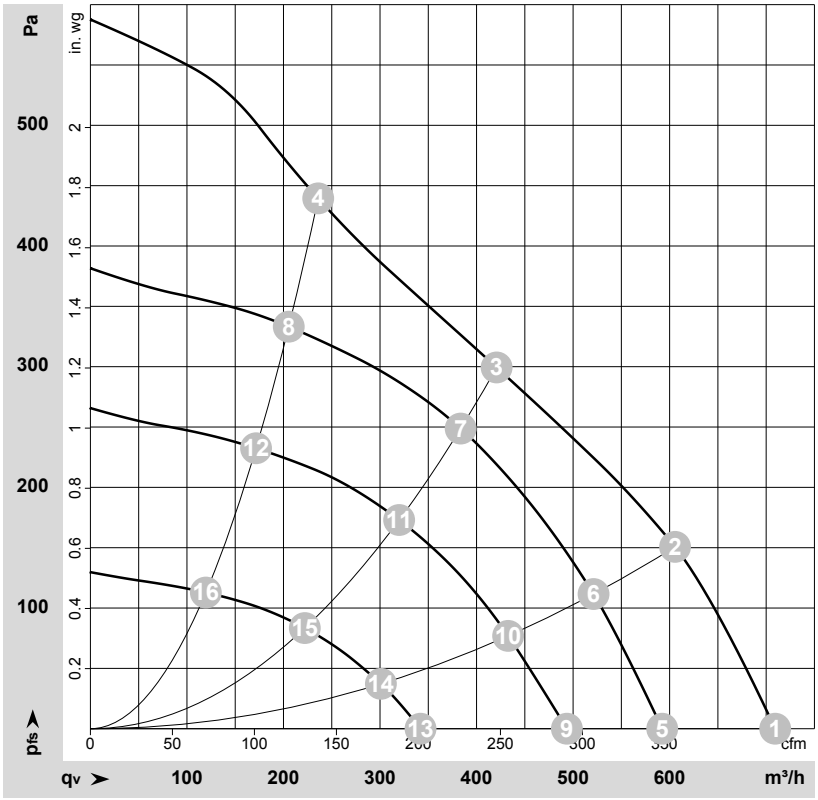
Curves: Air performance 50 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-213969-1

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	3475	81	0.65	710	0	415	0.00
2	1~	230	50	3370	81	0.65	605	150	355	0.60
3	1~	230	50	3150	81	0.65	420	300	250	1.20
4	1~	230	50	3330	81	0.65	235	440	140	1.77
5	1~	230	50	2900	47	0.38	590	0	350	0.00
6	1~	230	50	2900	51	0.42	520	112	305	0.45
7	1~	230	50	2900	62	0.50	385	250	225	1.00
8	1~	230	50	2900	53	0.44	205	333	120	1.34
9	1~	230	50	2430	31	0.28	495	0	290	0.00
10	1~	230	50	2430	33	0.29	435	77	255	0.31
11	1~	230	50	2430	38	0.34	320	174	190	0.70
12	1~	230	50	2430	34	0.30	170	232	100	0.93
13	1~	230	50	1700	13	0.13	340	0	200	0.00
14	1~	230	50	1700	14	0.13	300	37	175	0.15
15	1~	230	50	1700	15	0.15	220	84	130	0.34
16	1~	230	50	1700	14	0.14	120	113	70	0.45

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