R3G250-BK17-10

EC centrifugal fan

backward-curved, single-intake

R3G250-BK17-10 ebmpapst Datasheet
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Nominal data

Type	**R3G250-BK17-10**
Motor	**M3G055-CF**

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}	2600
Power consumption	W	110
Current draw	A	0.9
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	0.001 kg
Size	250 mm
Motor size	55
Rotor surface	Thick-film passivated
Impeller material	PA plastic
Number of blades	5
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. 10 mA - Tach output - 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	I (with customer connection of protective earth)
Conformity with standards	EN 60034-1; EN 60204-1; EN 60335-1; CE

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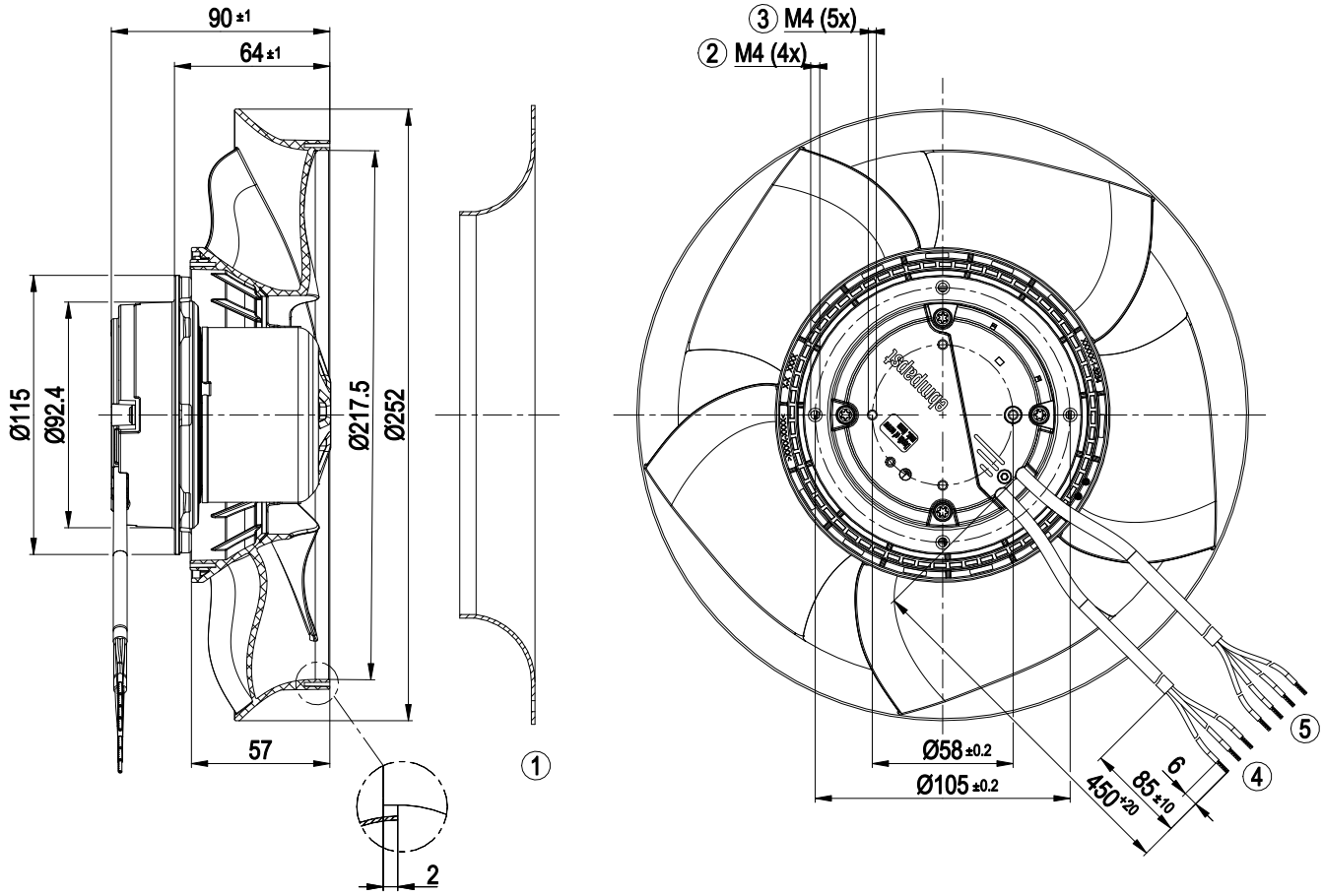
Product drawing



1	Accessory part: Inlet ring 96359-2-4013, not included in scope of delivery
2	Max. clearance for screw 5 mm
3	Max. clearance for screw 10 mm
4	Cable PVC 3G 0.5 mm²
	3x splice
5	Cable PVC 4x 0.25 mm²
	4x splice

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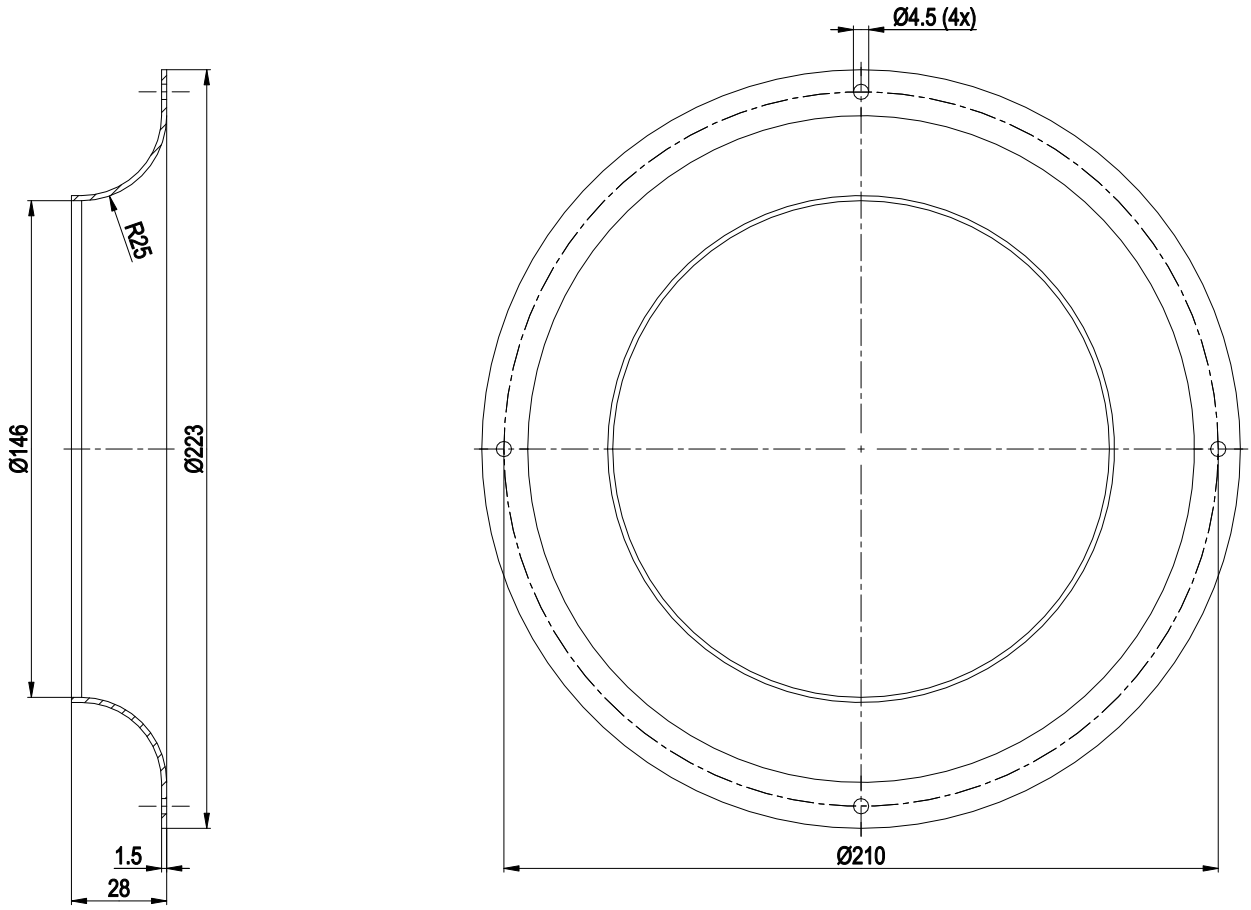
Accessory part



Inlet ring 96358-2-4013 not included in scope of delivery

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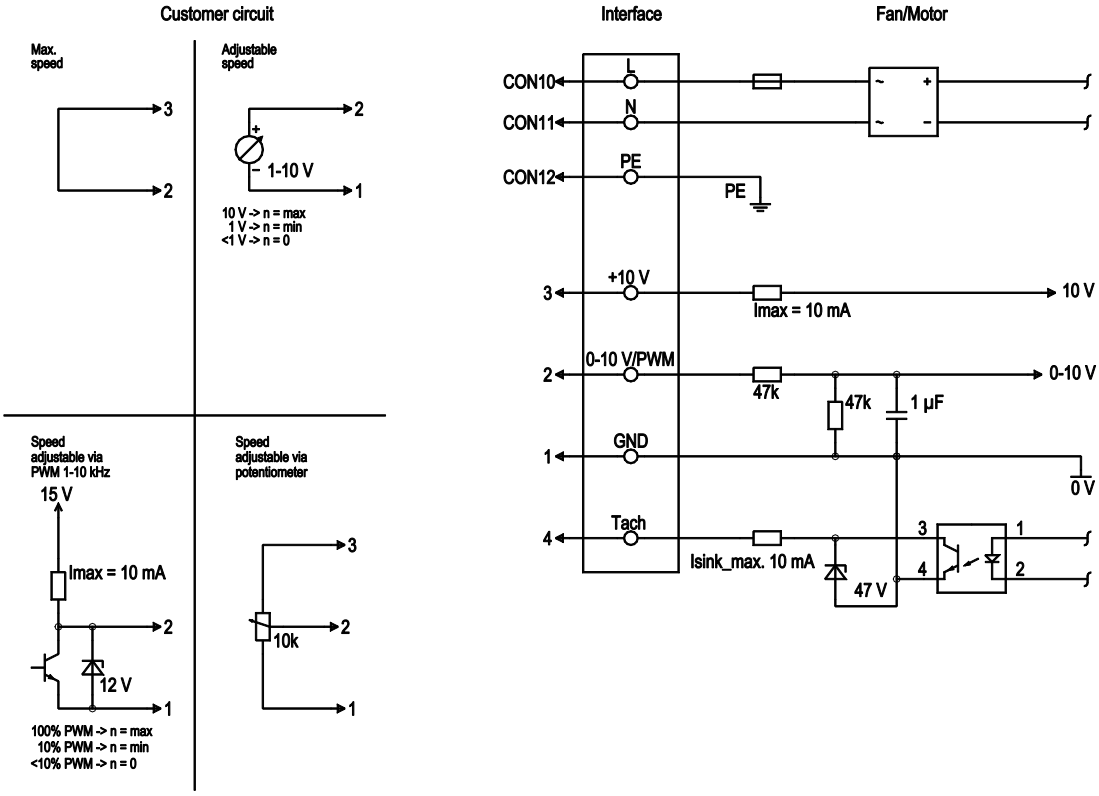
Connection diagram



No.	Conn.	Designation	Color	Function/assignment
	CON10	L	brown	Supply connection, power supply, phase, see nameplate for voltage range
	CON11	N	blue	Supply connection, power supply, neutral conductor, see nameplate for voltage range
	CON12	PE	green/yellow	Ground connection
	2	0- 10V PWM	yellow	0-10 V / PWM control input, Ri=100 kΩ, SELV
	4	Tach	white	Tach output, open collector, 1 pulse per revolution, Isink max = 10 mA, SELV
	3	+10 V	red	Fixed voltage output 10 VDC +/-3 %, Imax. 10 mA, short-circuit-proof, power supply for ext. devices (e.g. pot), SELV
	1	GND	blue	Reference ground for control interface, SELV

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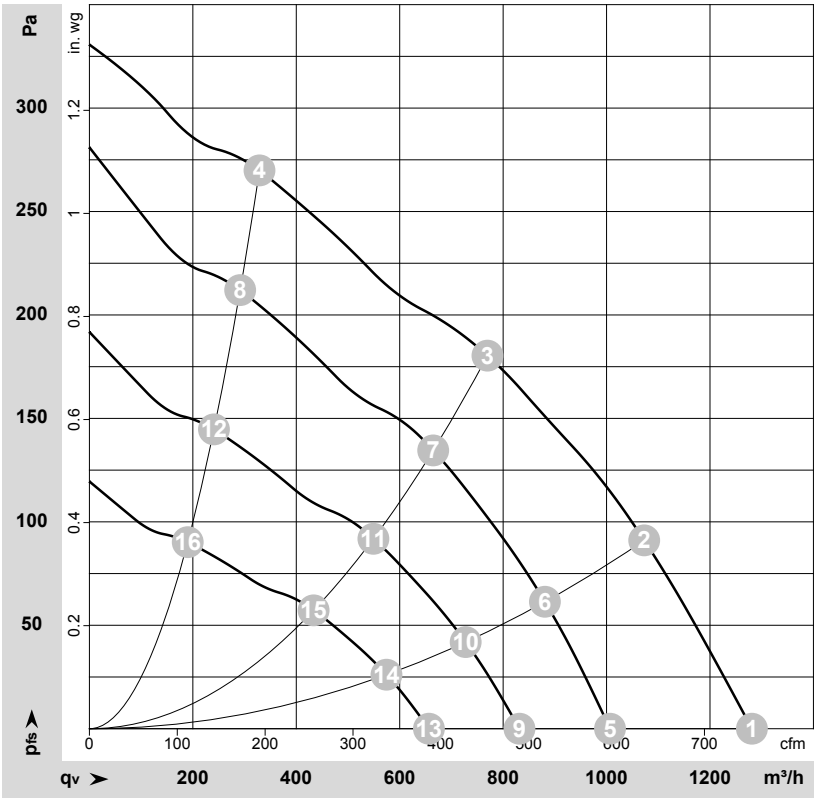
Curves: Air performance 50 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-201747-1

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_{ed}	I	LpA_{in}	LwA_{in}	q_V	p_{fs}	q_V	p_{fs}
		V	Hz	min^{-1}	W	A	dB(A)	dB(A)	m^3/h	Pa	cfm	in. wg
1	1~	230	50	2925	82	0.70	67	74	1280	0	755	0.00
2	1~	230	50	2800	92	0.78	65	72	1075	90	630	0.36
3	1~	230	50	2665	102	0.86	63	70	770	180	455	0.72
4	1~	230	50	2600	110	0.90	65	73	330	270	195	1.08
5	1~	230	50	2300	40	0.34	61	68	1005	0	595	0.00
6	1~	230	50	2300	51	0.43	60	67	880	62	520	0.25
7	1~	230	50	2300	66	0.56	59	66	665	135	390	0.54
8	1~	230	50	2300	73	0.62	62	70	290	212	170	0.85
9	1~	230	50	1900	22	0.19	56	63	830	0	490	0.00
10	1~	230	50	1900	29	0.24	55	62	730	42	430	0.17
11	1~	230	50	1900	37	0.31	54	61	550	92	325	0.37
12	1~	230	50	1900	41	0.35	58	65	240	145	140	0.58
13	1~	230	50	1500	11	0.09	50	57	655	0	385	0.00
14	1~	230	50	1500	14	0.12	49	56	575	26	340	0.10
15	1~	230	50	1500	18	0.15	48	55	435	57	255	0.23
16	1~	230	50	1500	20	0.17	52	59	190	90	110	0.36

Wired = Wiring · U = Voltage · f = Frequency · n = Speed (rpm) · P_{ed} = Power consumption · I = Current draw · LpA_{in} = Sound pressure level intake side · LwA_{in} = Sound power level intake side
q_V = Air flow · p_{fs} = Pressure increase