

KARTA KATALOGOWA

R3G355-RS02-H5

Wentylator promieniowy EC RadiCal, łopatki zakrzywione do tyłu, jednostronnie ssący

Producent: ebm-papst



Zdjęcie poglądowe

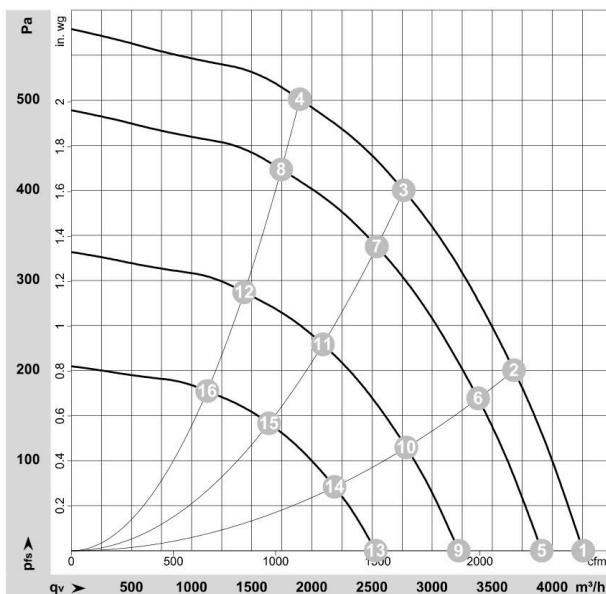
Dane znamionowe	
Napięcie znamionowe	1~ 230 V (200...277 V)
Częstotliwość	50/60 Hz
Prędkość obrotowa	1850 obr/min
Pobór mocy	500 W
Pobór prądu	2,2 A
Maks. wydajność	4255 m³/h
Maks. ciśnienie statyczne	500 Pa
Temperatura otoczenia	-25...+60 °C

Dane ErP (UE 327/2011)	
Sprawność całkowita	67,4 %
Przepływ w pkt. optymalnym	2805 m³/h
Przyrost ciśnienia	395 Pa
Regulacja obrotów	tak (0-10 V / PWM / MODBUS)

Budowa	
Średnica wirnika	355 mm
Materiał wirnika	tworzywo PP
Liczba łopatek	6
Stopień ochrony	IP55
Klasa izolacji	F
Zabezpieczenie silnika	termik (TOP)
Masa	5,67 kg

Charakterystyka przepływowa

Curves: Air performance 50 Hz



$$\rho = 1.15 \text{ kg/m}^3 \pm 2 \%$$

Measurement: LU-200212-1

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.

Dane na podstawie karty producenta ebm-papst (oryginał na kolejnych stronach).

Wartości znamionowe dla punktu maksymalnego obciążenia; producent zastrzega możliwość zmian.

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EC centrifugal fan - RadiCal

backward-curved, single-intake

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General partner Elektrobau Mulfingen GmbH · Headquarters Mulfingen

Amtsgericht (court of registration) Stuttgart · HRB 590142

Nominal data

Type	R3G355-RS02-H5	
Motor	M3G084-FA	
Phase		1~
Nominal voltage	VAC	230
Nominal voltage range	VAC	200 .. 277
Frequency	Hz	50/60
Method of obtaining data		ml
Speed (rpm)	min ⁻¹	1850
Power consumption	W	500
Current draw	A	2.2
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

Data according to Commission Regulation (EU) 327/2011 (EN 17166)

		Actual	Req. 2015
01 Overall efficiency η_{es}	%	67.4	48.4
02 Measurement category		A	
03 Efficiency category		Static	
04 Efficiency grade N		81	62
05 Variable speed drive		Yes	

Data obtained at optimum efficiency level.

The ErP data is determined using a motor-impeller combination in a standardized measurement setup.

09 Power consumption P_{ed}	kW	0.5
09 Air flow q_v	m ³ /h	2805
09 Pressure increase p_{fs}	Pa	395
10 Speed (rpm) n	min ⁻¹	1850
11 Specific ratio*		1.00

 * Specific ratio = $1 + p_{fs} / 100\,000\text{ Pa}$

LU-151750



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Technical description

Weight	5.67 kg
Size	355 mm
Motor size	84
Rotor surface	Painted black
Electronics housing material	Die-cast aluminum
Impeller material	PP plastic
Number of blades	6
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	IP55
Insulation class	"F"
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	Shaft horizontal or rotor on bottom; rotor on top on request
Condensation drainage holes	On rotor side
Mode	S1
Motor bearing	Ball bearing
Technical features	- Output 10 VDC, max. 10 mA - Operation and alarm display - Alarm relay - Integrated PID controller - Power limiter - Motor current limitation - PFC, active - RS-485 MODBUS-RTU - Soft start - Control input 0-10 VDC / PWM - Control interface with SELV potential safely disconnected from the mains - Thermal overload protection for electronics/motor - Line undervoltage / phase failure 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	Thermal overload protector (TOP) internally connected
With cable	Variable
Protection class	I (with customer connection of protective earth)
Conformity with standards	EN 61800-5-1; EN 60335-1; CE
Approval	CSA C22.2 No. 77 + CAN/CSA-E60730-1; EAC; UL 1004-7 + 60730-1

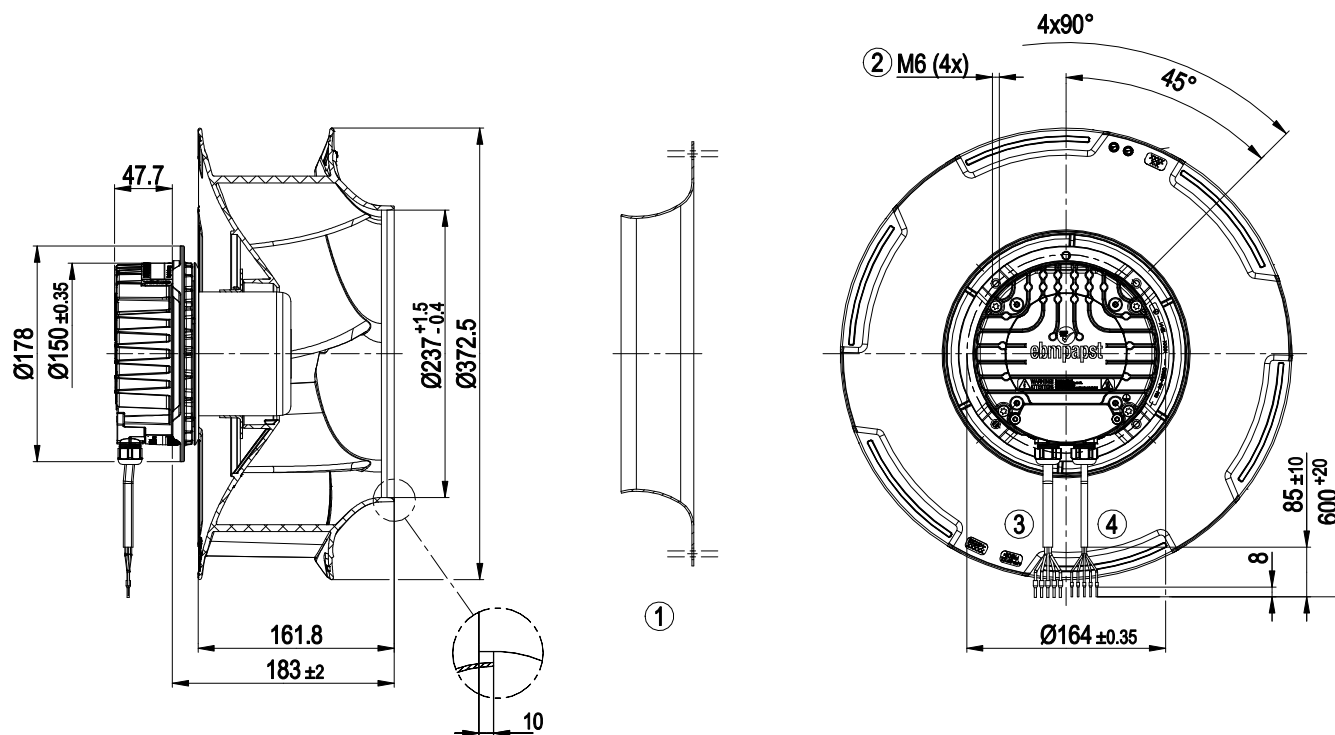


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Product drawing



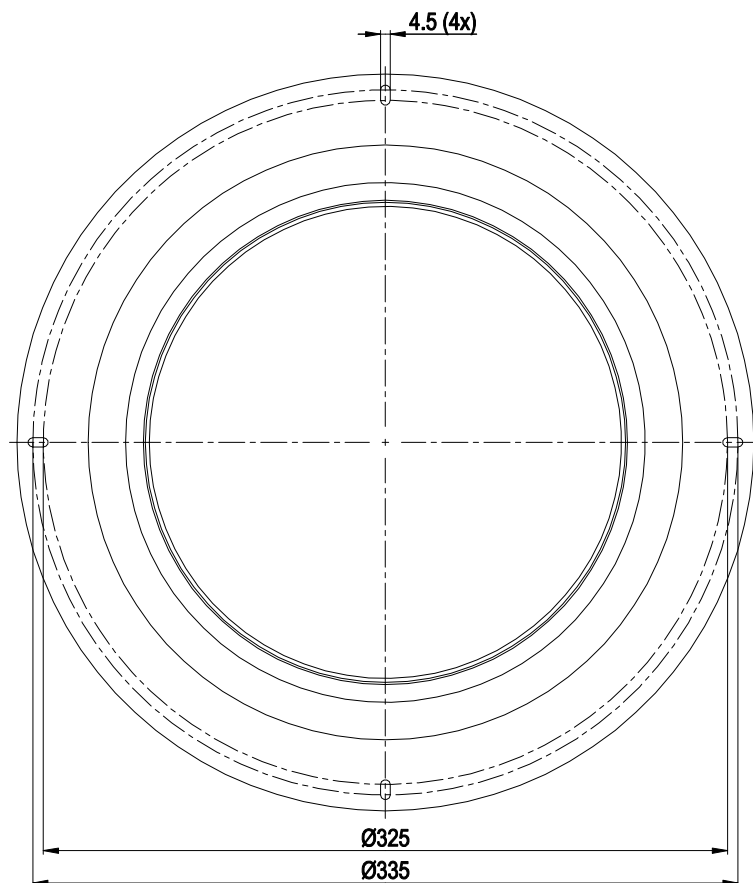
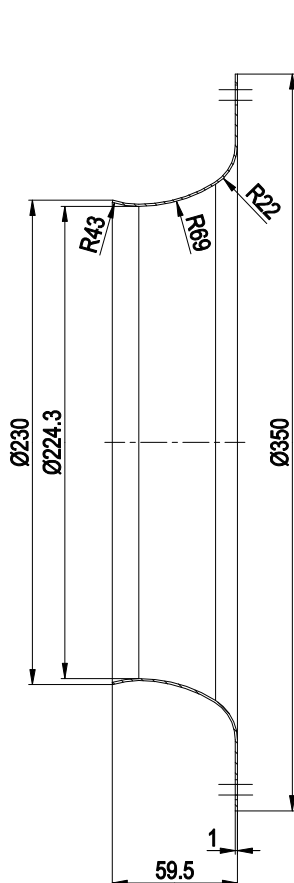
1	Accessory part: inlet ring 35500-2-4013 not included in scope of delivery
2	Max. clearance for screw 16 mm
3	Cable PVC AWG18, 5x crimped ferrules
4	Cable PVC AWG22, 5x crimped ferrules

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Accessory part



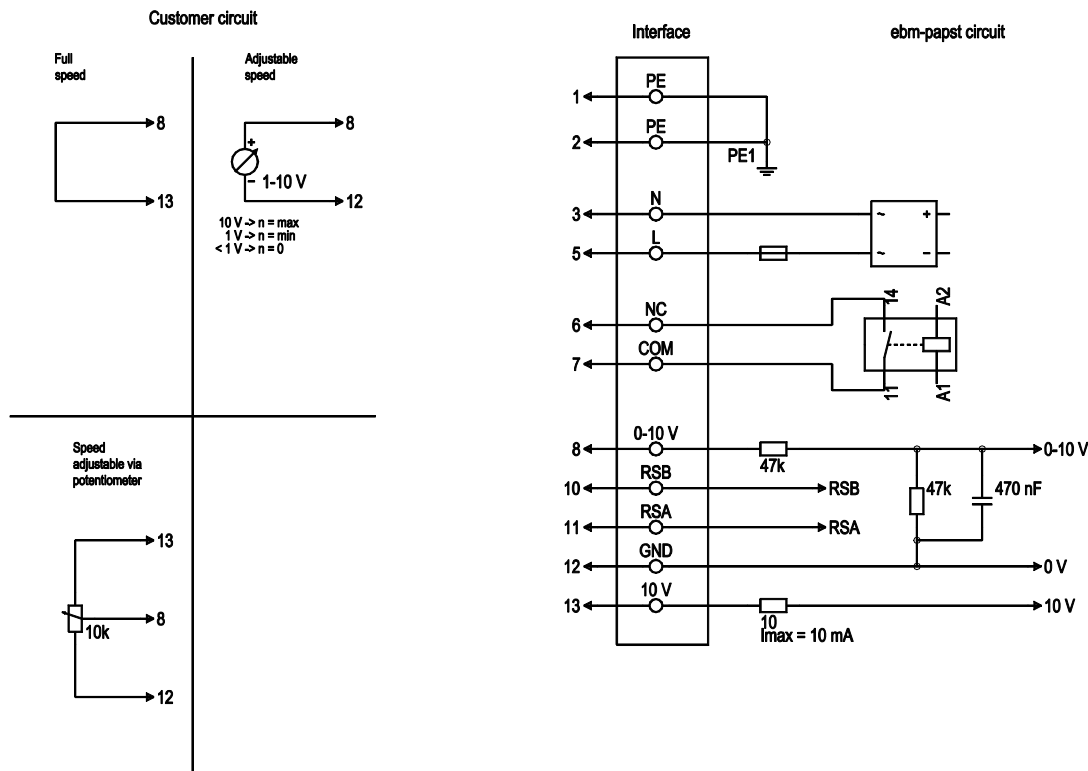
Inlet ring 35500-2-4013

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Connection diagram



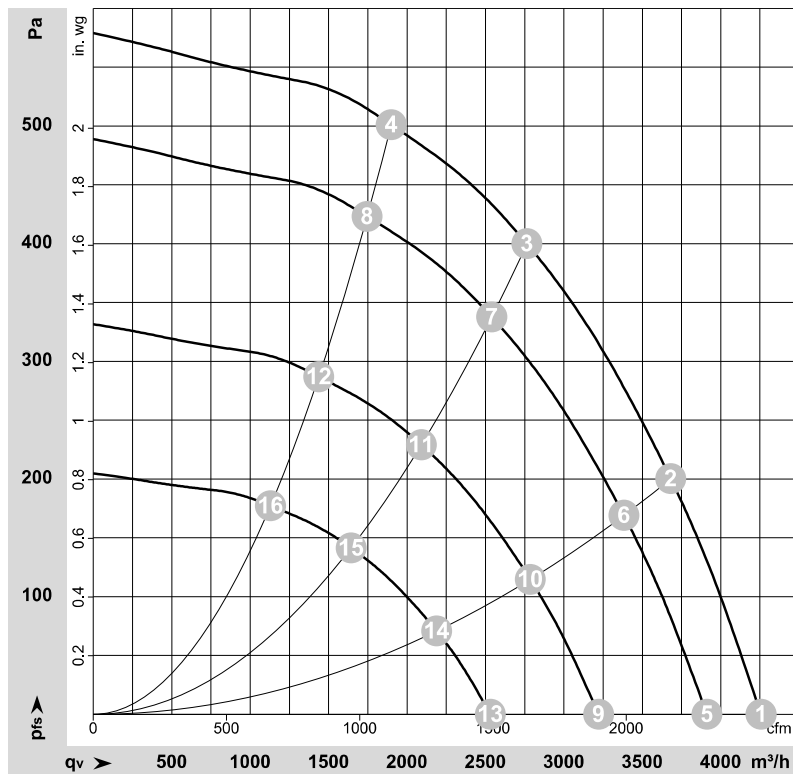
No.	Conn.	Designation	Color	Function/assignment
1	1, 2	PE	green/yellow	Protective earth
1	3	N	blue	Power supply, neutral conductor, 50/60 Hz
1	5	L	black	Power supply, phase, 50/60 Hz
1	6	NC	white 1	Status relay, floating status contact; break for failure, contact rating 250 VAC / 2A (AC1) / min. 10 mA, basic insulation on supply side and reinforced insulation on control interface side
1	7	COM	white 2	Status relay, floating status contact; common connection, contact rating 250 VAC / 2A (AC1) / min. 10 mA, basic insulation on supply side and reinforced insulation on control interface side
2	8	0-10V	yellow	Analog input (set value); 0-10 V; Ri = 100 kΩ; adjustable curve
2	10	RSB	brown	RS485 interface for MODBUS, RSB
2	11	RSA	white	RS485 interface for MODBUS, RSA
2	12	GND	blue	Reference ground for control interface, SELV
2	13	+10V	red	Fixed voltage output 10 VDC, +10 V ±3%; max. 10 mA; short-circuit-proof; power supply for external devices (e.g. pot)

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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)	m³/h	Pa	cfm	in. wg
1	1~	230	50	1850	336	1.47	77	84	4255	0	2505	0.00
2	1~	230	50	1850	452	1.97	69	76	3680	200	2165	0.80
3	1~	230	50	1850	500	2.20	62	69	2765	400	1625	1.61
4	1~	230	50	1850	485	2.11	64	72	1900	500	1120	2.01
5	1~	230	50	1700	261	1.14	75	82	3910	0	2305	0.00
6	1~	230	50	1700	351	1.53	67	74	3385	169	1990	0.68
7	1~	230	50	1700	394	1.72	60	67	2540	339	1495	1.36
8	1~	230	50	1700	376	1.64	62	70	1745	423	1025	1.70
9	1~	230	50	1400	146	0.64	70	77	3220	0	1895	0.00
10	1~	230	50	1400	196	0.85	62	69	2785	115	1640	0.46
11	1~	230	50	1400	220	0.96	55	62	2090	230	1230	0.92
12	1~	230	50	1400	210	0.91	57	65	1435	287	845	1.15
13	1~	230	50	1100	71	0.31	64	71	2530	0	1490	0.00
14	1~	230	50	1100	95	0.41	56	63	2190	71	1290	0.29
15	1~	230	50	1100	107	0.46	49	56	1645	142	965	0.57
16	1~	230	50	1100	102	0.44	51	59	1130	177	665	0.71

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

