

KARTA KATALOGOWA

K3G250-PR17-J9

Moduł promieniowy EC RadiPac, łopatki zakrzywione do tyłu, jednostronnie ssący

Producent: ebm-papst



Dane znamionowe

Napięcie znamionowe	3~ 400 V (380...480 V)
Częstotliwość	50/60 Hz
Prędkość obrotowa	4000 obr/min
Pobór mocy	1160 W
Pobór prądu	1,8 A
Maks. wydajność	3755 m³/h
Maks. ciśnienie statyczne	1450 Pa
Temperatura otoczenia	-25...+60 °C

Budowa

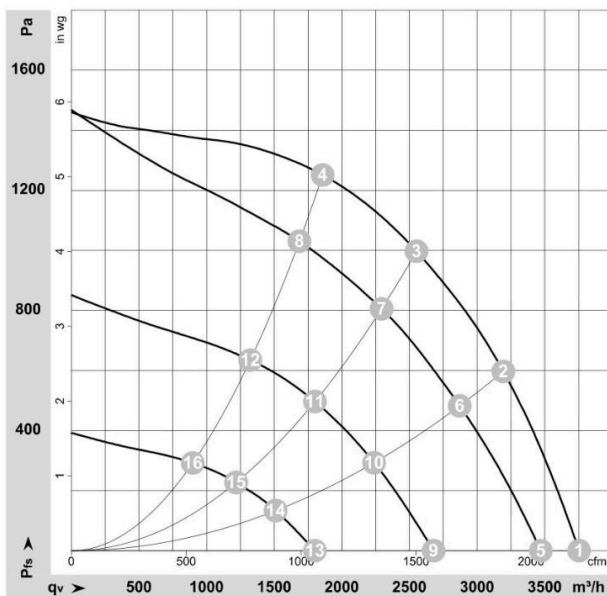
Średnica wirnika	250 mm
Materiał wirnika	tworzywo PA
Liczba łopatek	6
Stopień ochrony	IP55
Klasa izolacji	F
Zabezpieczenie silnika	termik (TOP)
Masa	9,1 kg

Dane ErP (UE 327/2011)

Sprawność całkowita	66,5 %
Przepływ w pkt. optymalnym	2405 m³/h
Przyrost ciśnienia	1072 Pa
Regulacja obrotów	tak (0-10 V / PWM / MODBUS)

Charakterystyka przepływowa (50 Hz)

Curves: Air performance 50 Hz



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

Measurement: LU-175325-1

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 module - RadiPac

backward-curved, single-intake

with support bracket


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Nominal data

Type	K3G250-PR17-J9	
Motor	M3G084-DF	
Phase		3~
Nominal voltage	VAC	400
Nominal voltage range	VAC	380 .. 480
Frequency	Hz	50/60
Method of obtaining data		ml
Speed (rpm)	min ⁻¹	4000
Power consumption	W	1160
Current draw	A	1.8
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 (prEN 17166)

		Actual	Req. 2015			
01 Overall efficiency η_{es}	%	66.5	52.2	09 Power consumption P_{ed}	kW	1.15
02 Measurement category		A		09 Air flow q_v	m ³ /h	2405
03 Efficiency category		Static		09 Pressure increase p_{fs}	Pa	1072
04 Efficiency grade N		76.3	62	10 Speed (rpm) n	min ⁻¹	4005
05 Variable speed drive		Yes		11 Specific ratio*		1.01

Data obtained at optimum efficiency level.

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

LU-175325

The efficiency values displayed for achieving conformity with the Ecodesign Regulation EU 327/2011 has been reached with defined air duct components (e.g. inlet rings).
The dimensions must be requested from ebm-papst. If other air conduction geometries are used on the installation side, the ebm-papst evaluation loses its validity/the conformity must be confirmed again.
The product does not fall within the scope of Regulation (EU) 2019/1781 due to the exception specified in Article 2 (2a) (motors completely integrated into a product).



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Technical description

Weight	9.1 kg
Size	250 mm
Motor size	84
Rotor surface	Painted black
Electronics housing material	Die-cast aluminum
Impeller material	PA plastic
Support plate material	Sheet steel, galvanized
Support bracket material	Steel, painted black
Inlet nozzle material	Sheet steel, galvanized
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; (sealed)
Technical features	- Output 10 VDC, max. 10 mA - Operation and alarm display - Alarm relay - Integrated PID controller - Power limiter - Motor current limitation - PFC, passive - RS-485 MODBUS-RTU - Soft start - EEPROM write cycles: 100,000 maximum - Control input 0-10 VDC / PWM - Control interface with SELV potential safely disconnected from the mains - Temperature derating - Thermal overload protection for electronics/motor - Line undervoltage / phase failure detection
EMC immunity to interference	According to EN 61000-6-2 (industrial environment)
EMC interference emission	According to EN 61000-6-3 (household environment), except EN 61000-3-2 for professionally used equipment with a total rated power greater than 1 kW
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



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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 61800-5-1; CE
Approval	UL 1004-7 + 60730-1; EAC; CSA C22.2 No. 77 + CAN/CSA-E60730-1

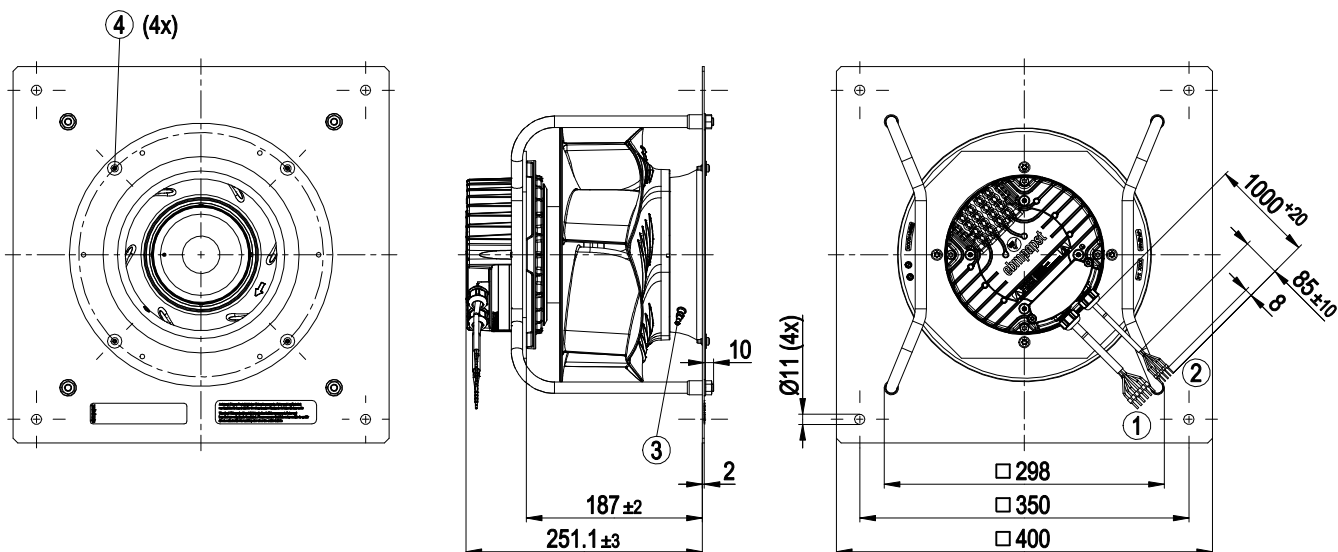


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Product drawing



1	Cable PVC AWG18 6x wire-end ferrule
2	Cable PVC AWG22 5x wire-end ferrule
3	Inlet ring with pressure tap (k-factor: 76)
4	Attachment holes for inlet ring and FlowGrid (20280-2-2957 not included in scope of delivery)

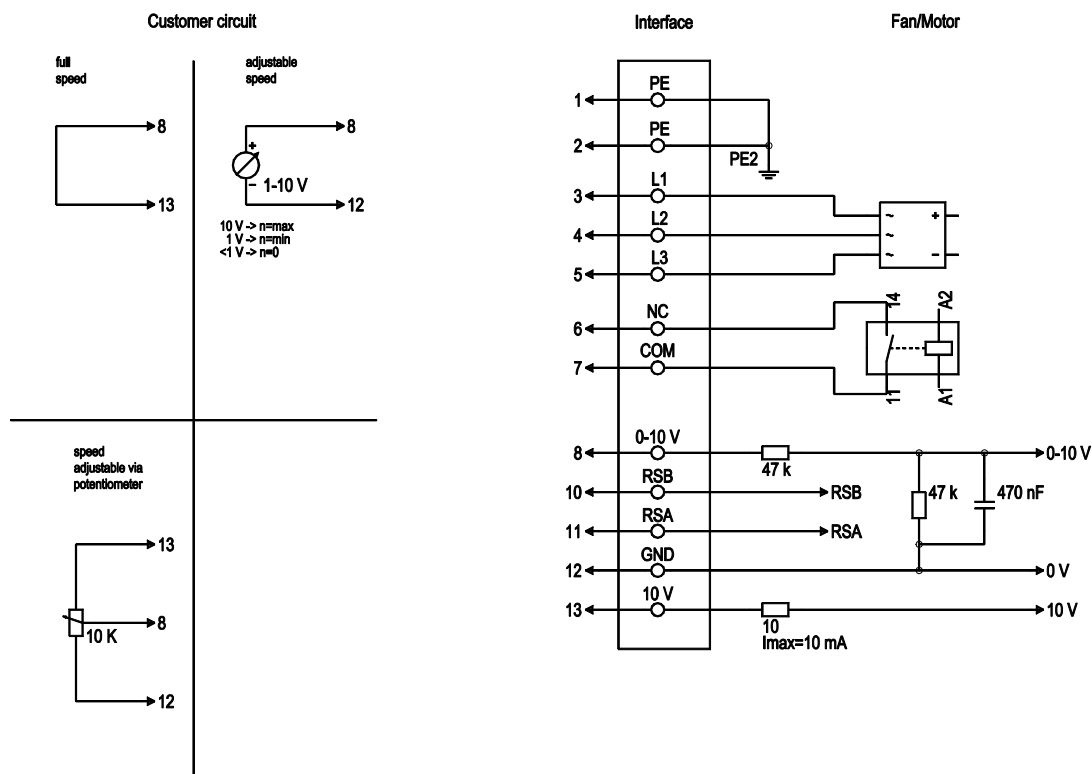
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Connection diagram



No.	Conn.	Designation	Color	Function/assignment
1	1, 2	PE	green/yellow	Protective earth
1	3, 4, 5	L1, L2, L3	black	Power supply, phase, 50/60 Hz
1	6	NC	white 1	Status relay, floating status contact, break for failure, contact rating 250 VAC/30 VDC 5 A minimum contact gap 10 mA/5 VDC, reinforced insulation on control interface side, functional insulation on supply side
1	7	COM	white 2	Status relay, floating status contact, common connection, contact rating 250 VAC/30 VDC 5 A minimum contact gap 10 mA/5 VDC, reinforced insulation on control interface side, functional insulation on supply side
2	8	0-10V	yellow	Analog input (set value) SELV, 0-10 V, Ri = 100 kΩ, adjustable curve
2	10	RSB	brown	RS485 interface for MODBUS, RSB; SELV
2	11	RSA	white	RS485 interface for MODBUS, RSA; SELV
2	12	GND	blue	Reference ground for control interface, SELV
2	13	+10V	red	Fixed voltage output 10 VDC, SELV, +10 V +/-3%, max. 10 mA, short-circuit-proof, power supply for external devices (e.g. potentiometers)



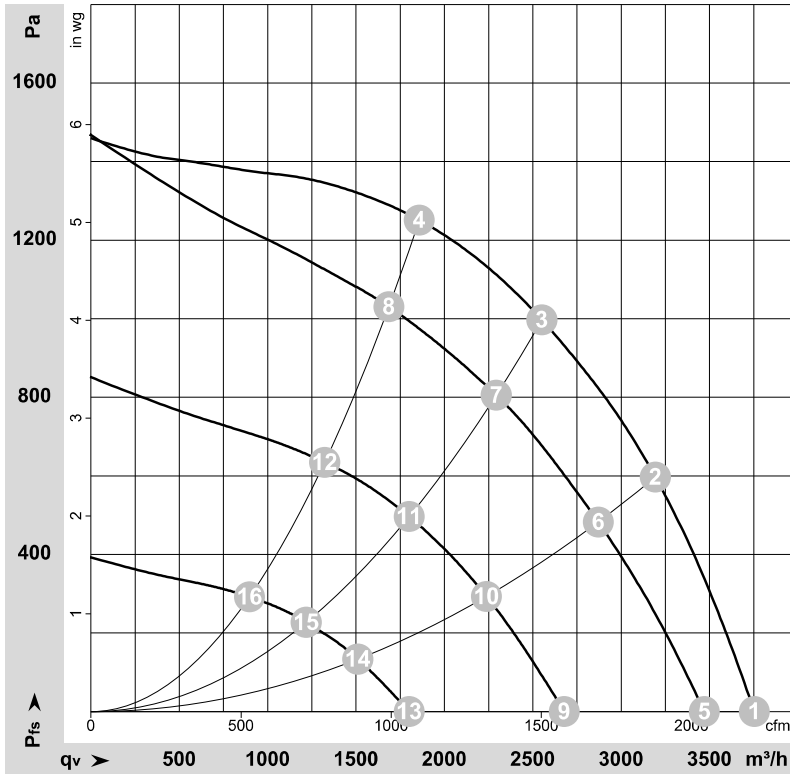
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Measured values

	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	Y	400	50	4000	810	1.30	81	88	3755	0	2210	0.00
2	Y	400	50	4000	1094	1.75	81	88	3195	600	1880	2.41
3	Y	400	50	4000	1160	1.80	78	85	2550	1000	1500	4.01
4	Y	400	50	4000	1100	1.75	75	82	1855	1250	1095	5.02
5	Y	400	50	3775	695	1.15	80	87	3470	0	2040	0.00
6	Y	400	50	3630	836	1.35	76	84	2870	483	1690	1.94
7	Y	400	50	3595	843	1.36	72	79	2295	806	1350	3.24
8	Y	400	50	3610	823	1.33	71	80	1685	1032	990	4.14
9	Y	400	50	2930	333	0.63	74	81	2680	0	1575	0.00
10	Y	400	50	2845	412	0.73	69	76	2240	293	1315	1.18
11	Y	400	50	2835	423	0.75	65	72	1800	497	1060	2.00
12	Y	400	50	2845	417	0.74	66	73	1325	635	780	2.55
13	Y	400	50	1985	125	0.30	64	71	1800	0	1060	0.00
14	Y	400	50	1945	149	0.34	59	66	1510	134	890	0.54
15	Y	400	50	1940	154	0.35	56	63	1220	227	715	0.91
16	Y	400	50	1940	153	0.35	55	63	895	292	530	1.17

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

