

KARTA KATALOGOWA

R3G560-PB31-71

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

Producent: ebm-papst



Zdjęcie poglądowe

Dane znamionowe

Napięcie znamionowe	3~ 400 V (380...480 V)
Częstotliwość	50/60 Hz
Prędkość obrotowa	1540 obr/min
Pobór mocy	3300 W
Pobór prądu	5,1 A
Maks. wydajność	18290 m³/h
Maks. ciśnienie statyczne	1080 Pa
Temperatura otoczenia	-25...+50 °C

Budowa

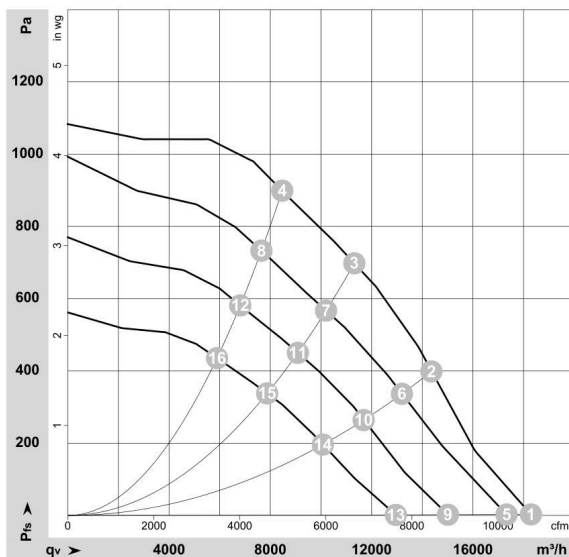
Średnica wirnika	560 mm
Materiał wirnika	blacha aluminiowa
Liczba łopatek	5
Stopień ochrony	IP55
Klasa izolacji	F
Zabezpieczenie silnika	ochrona przed zablokowaniem wirnika
Masa	28 kg

Dane ErP (UE 327/2011)

Sprawność całkowita	71 %
Przepływ w pkt. optymalnym	10515 m³/h
Przyrost ciśnienia	759 Pa
Regulacja obrotów	tak (0-10 V / PWM / MODBUS)

Charakterystyka przepływowa

Curves: Air performance 50 Hz



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

Measurement: LU-173841-1

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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R3G560-PB31-71

EC centrifugal fan - RadiPac

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	R3G560-PB31-71	
Motor	M3G150-IF	
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	1540
Power consumption	W	3300
Current draw	A	5.1
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	50

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}	%	71	56.9	09 Power consumption P_{ed}	kW	3.29
02 Measurement category		A		09 Air flow q_v	m ³ /h	10515
03 Efficiency category		Static		09 Pressure increase p_{fs}	Pa	759
04 Efficiency grade N		76.1	62	10 Speed (rpm) n	min ⁻¹	1535
05 Variable speed drive		Yes		11 Specific ratio*		1.01

Data obtained at optimum efficiency level.

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

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

LU-173841



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Technical description

Weight	28 kg
Size	560 mm
Motor size	150
Rotor surface	Painted black
Electronics housing material	Die-cast aluminum
Impeller material	Sheet aluminum
Number of blades	5
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 - External release input - Alarm relay - Integrated PID controller - Motor current limitation - PFC, passive - 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 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
Electrical hookup	Terminal box
Motor protection	Reverse polarity and locked-rotor protection
Protection class	I (with customer connection of protective earth)
Conformity with standards	EN 61800-5-1; CE
Approval	EAC

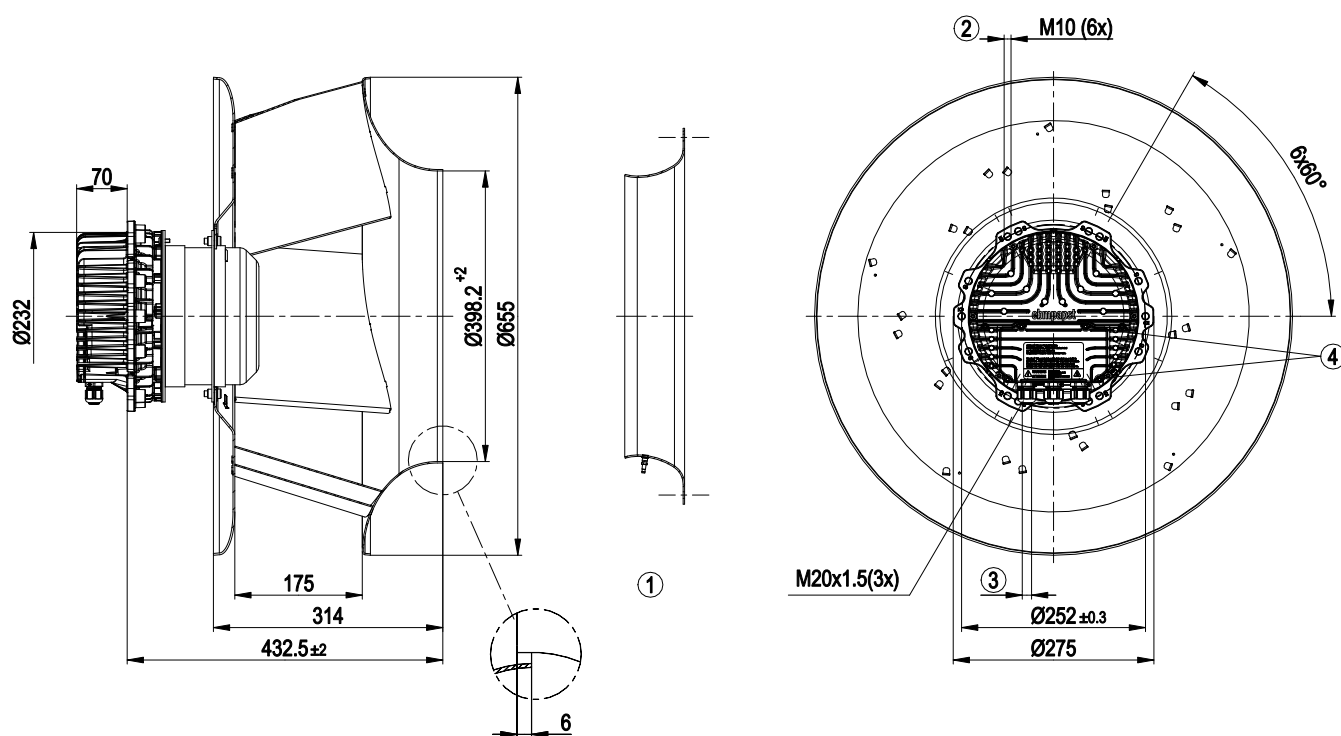


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Product drawing



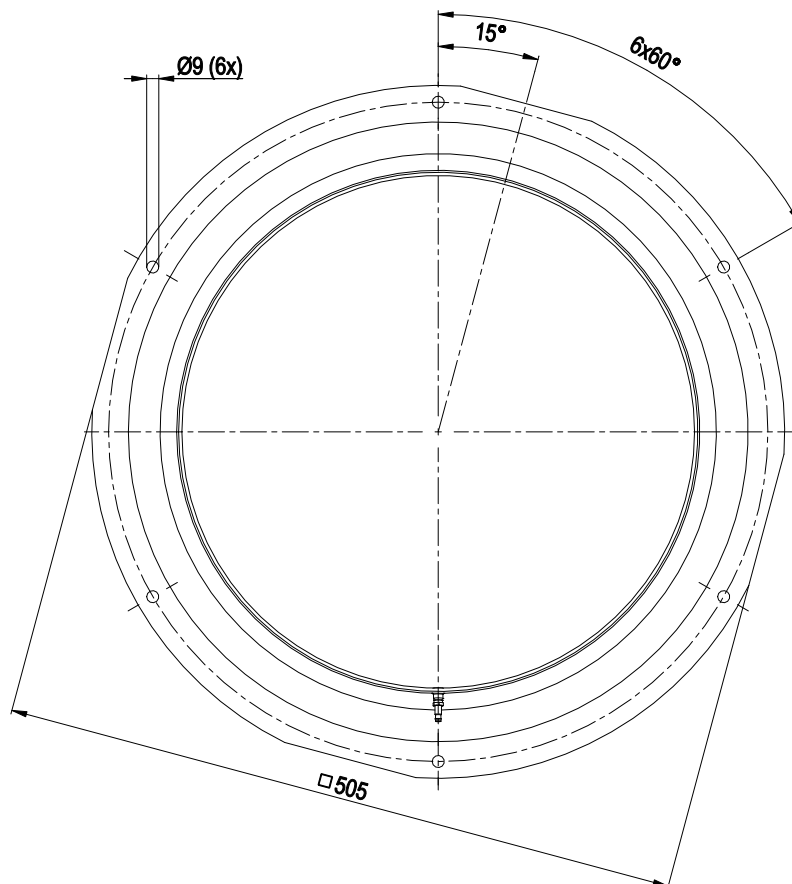
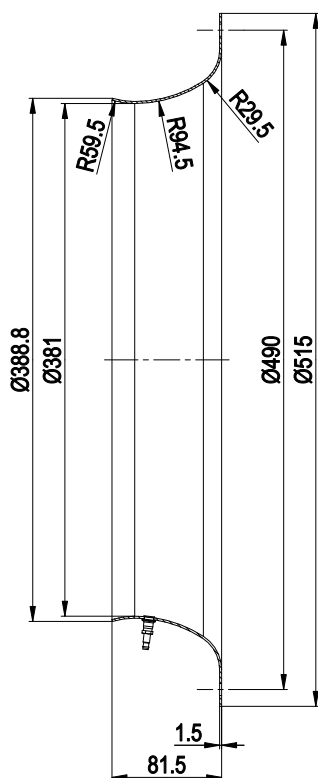
1	Accessory part: inlet ring 64030-2-4013 with pressure tap (k-factor: 348) not included in scope of delivery
2	Max. clearance for screw 25 mm
3	Cable diameter min. 4 mm, max. 10 mm, tightening torque 4 ± 0.6 Nm
4	Tightening torque 3.5 ± 0.5 Nm

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Accessory part



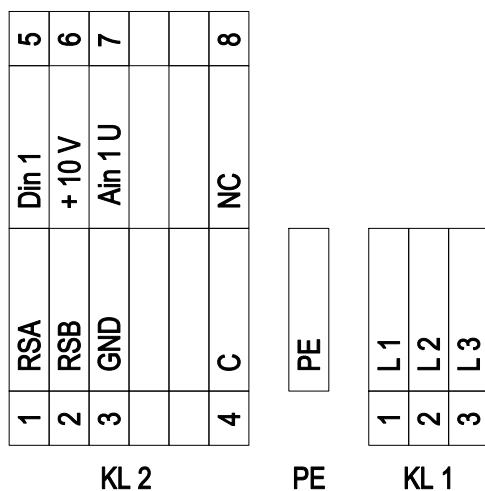
Inlet ring 64030-2-4013 with pressure tap (k-factor: 348)

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Connection diagram



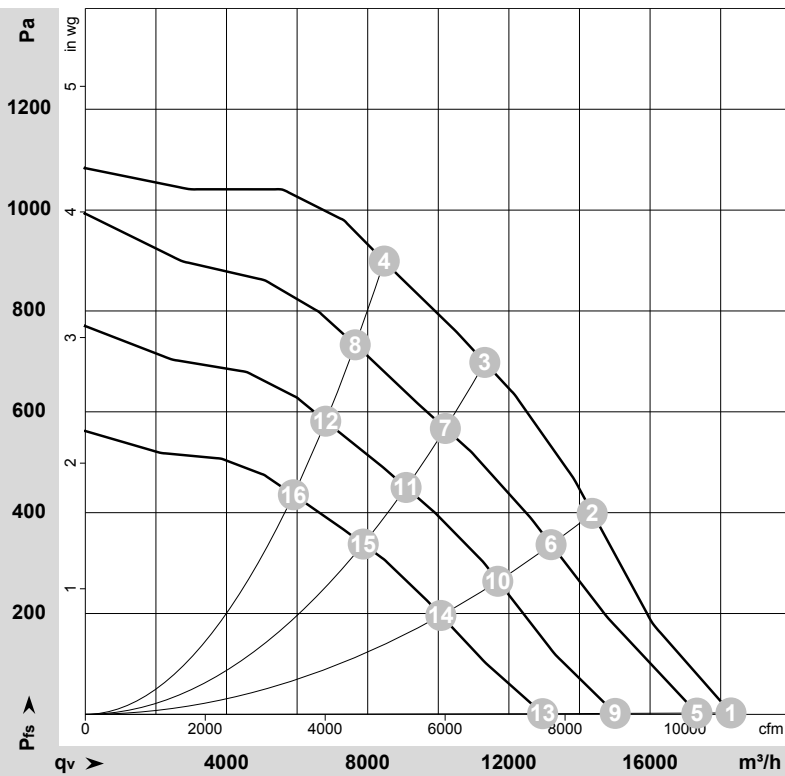
No.	Conn.	Designation	Function/assignment
KL 1	1	L1	Supply connection, power supply 3-phase 380-480 VAC, 50/60 Hz
KL 1	2	L2	Supply connection, power supply 3-phase 380-480 VAC, 50/60 Hz
KL 1	3	L3	Supply connection, power supply 3-phase 380-480 VAC, 50/60 Hz
PE		PE	Ground connection, PE connection
KL 2	1	RSA	Bus connection RS485, RSA, MODBUS-RTU; SELV
KL 2	2	RSB	Bus connection RS485, RSB, MODBUS-RTU; SELV
KL 2	3	GND	Reference ground for control interface; SELV
KL 2	4	C	Status relay, floating status contact, break for failure; contact rating 250 VAC / max. 2 A (AC1) / min. 10 mA
KL 2	5	Din1	Digital input 1 enable electronics, enable: pin open or applied voltage 5-50 VDC disable: bridge to GND or applied voltage < 1 VDC reset function: triggers software reset after a level change to < 1 V; SELV
KL 2	6	+ 10 V	Fixed voltage output 10 VDC, +10 V ±3%, max. 10 mA, short-circuit-proof, power supply for external devices (e.g. pot); SELV Or: +24 VDC input for parameter setting via MODBUS without line voltage
KL 2	7	Ain1 U	Analog input 1 (set value) 0-10 V, Ri = 100 kΩ, adjustable curve; SELV
KL 2	8	NC	Status relay, floating status contact, break for failure

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Measured values

	U	f	n	P _{ed}	I	LpA _{in}	LwA _{in}	LwA _{out}	q _v	P _{fs}	q _v	P _{fs}
	V	Hz	min ⁻¹	W	A	dB(A)	dB(A)	dB(A)	m³/h	Pa	cfm	in. wg
1	400	50	1540	1834	2.88	91	97	97	18290	0	10765	0.00
2	400	50	1540	2810	4.32	81	88	90	14360	400	8450	1.61
3	400	50	1540	3300	5.10	76	82	86	11320	700	6665	2.81
4	400	50	1540	3230	4.95	76	82	86	8470	900	4985	3.61
5	400	50	1470	1591	2.52	89	96	95	17325	0	10200	0.00
6	400	50	1410	2168	3.37	80	86	88	13195	337	7765	1.35
7	400	50	1385	2389	3.70	71	79	82	10200	567	6005	2.28
8	400	50	1385	2372	3.68	71	78	82	7645	733	4500	2.94
9	400	50	1275	1059	1.77	86	93	93	15015	0	8835	0.00
10	400	50	1250	1524	2.43	75	83	85	11685	265	6880	1.06
11	400	50	1235	1699	2.69	69	75	80	9085	450	5350	1.81
12	400	50	1235	1684	2.66	69	75	80	6810	581	4010	2.33
13	400	50	1110	714	1.31	82	89	90	12955	0	7625	0.00
14	400	50	1080	1001	1.69	72	79	82	10075	196	5930	0.79
15	400	50	1070	1116	1.85	65	72	77	7875	338	4635	1.36
16	400	50	1070	1101	1.83	65	72	77	5895	436	3470	1.75

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
LwA_{out} = Sound power level outlet side · q_v = Air flow · P_{fs} = Pressure increase

