

KARTA KATALOGOWA

R3G355-AY40-01

Wentylator 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	2600 obr/min
Pobór mocy	1700 W
Pobór prądu	2,6 A
Maks. wydajność	6650 m³/h
Maks. ciśnienie statyczne	1155 Pa
Temperatura otoczenia	-25...+40 °C

Budowa

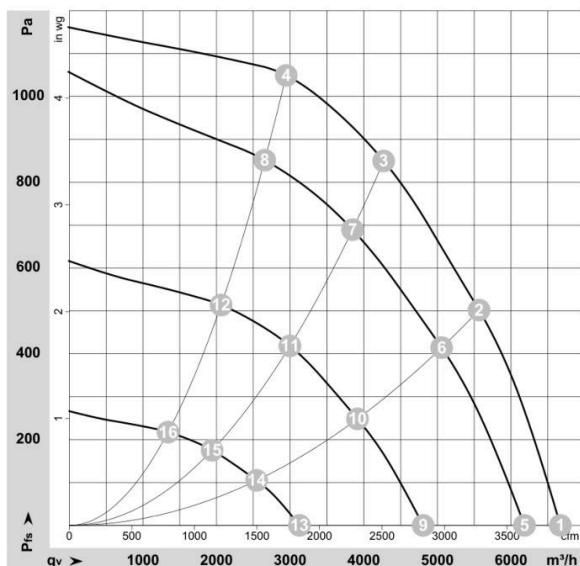
Średnica wirnika	355 mm
Materiał wirnika	blacha aluminiowa
Liczba łopatek	7
Stopień ochrony	IP54
Klasa izolacji	B
Zabezpieczenie silnika	termik (TOP)
Masa	13,16 kg

Dane ErP (UE 327/2011)

Sprawność całkowita	66,3 %
Przepływ w pkt. optymalnym	4325 m³/h
Przyrost ciśnienia	885 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-158072-1

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 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 - 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	R3G355-AY40-01	
Motor	M3G112-GA	
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	2600
Power consumption	W	1700
Current draw	A	2.6
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	40

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}	%	66.3	54	09 Power consumption P_{ed}	kW	1.72
02 Measurement category		A		09 Air flow q_v	m ³ /h	4325
03 Efficiency category		Static		09 Pressure increase p_{fs}	Pa	885
04 Efficiency grade N		74.3	62	10 Speed (rpm) n	min ⁻¹	2585
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-106936



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Technical description

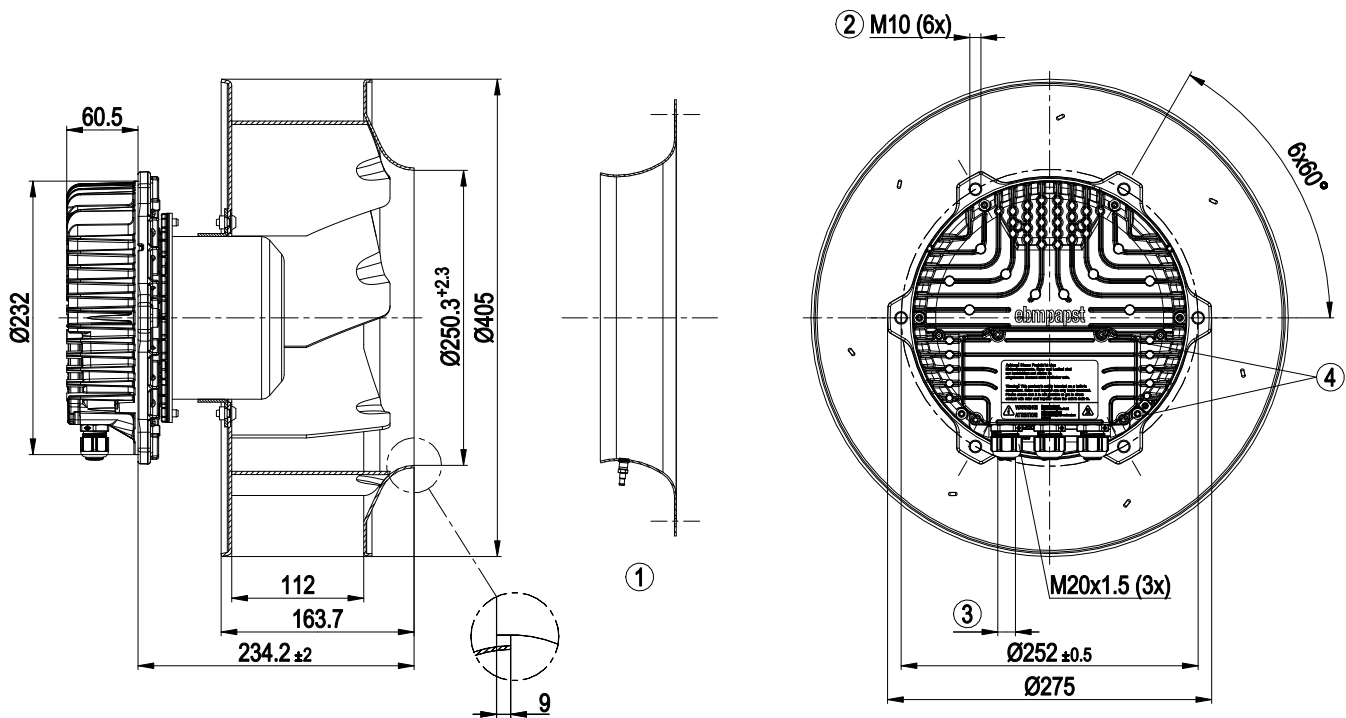
Weight	13.16 kg
Size	355 mm
Motor size	112
Rotor surface	Painted black
Electronics housing material	Die-cast aluminum
Impeller material	Sheet aluminum
Number of blades	7
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	IP54
Insulation class	"B"
Moisture (F) / Environmental (H) 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	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 - Output 20 VDC, max. 50 mA - Output for slave 0-10 V - Input for sensor 0-10 V or 4-20 mA - External 24 V input (parameter setting) - 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
EMC interference emission	According to EN 61000-6-3
Touch current according to IEC 60990 (measuring circuit Fig. 4, TN system)	<= 3.5 mA
Electrical hookup	Terminal box
Motor protection	Thermal overload protector (TOP) internally connected
Protection class	I (with customer connection of protective earth)
Conformity with standards	EN 61800-5-1; CE
Approval	EAC; UL 1004-7 + 60730-1

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Product drawing



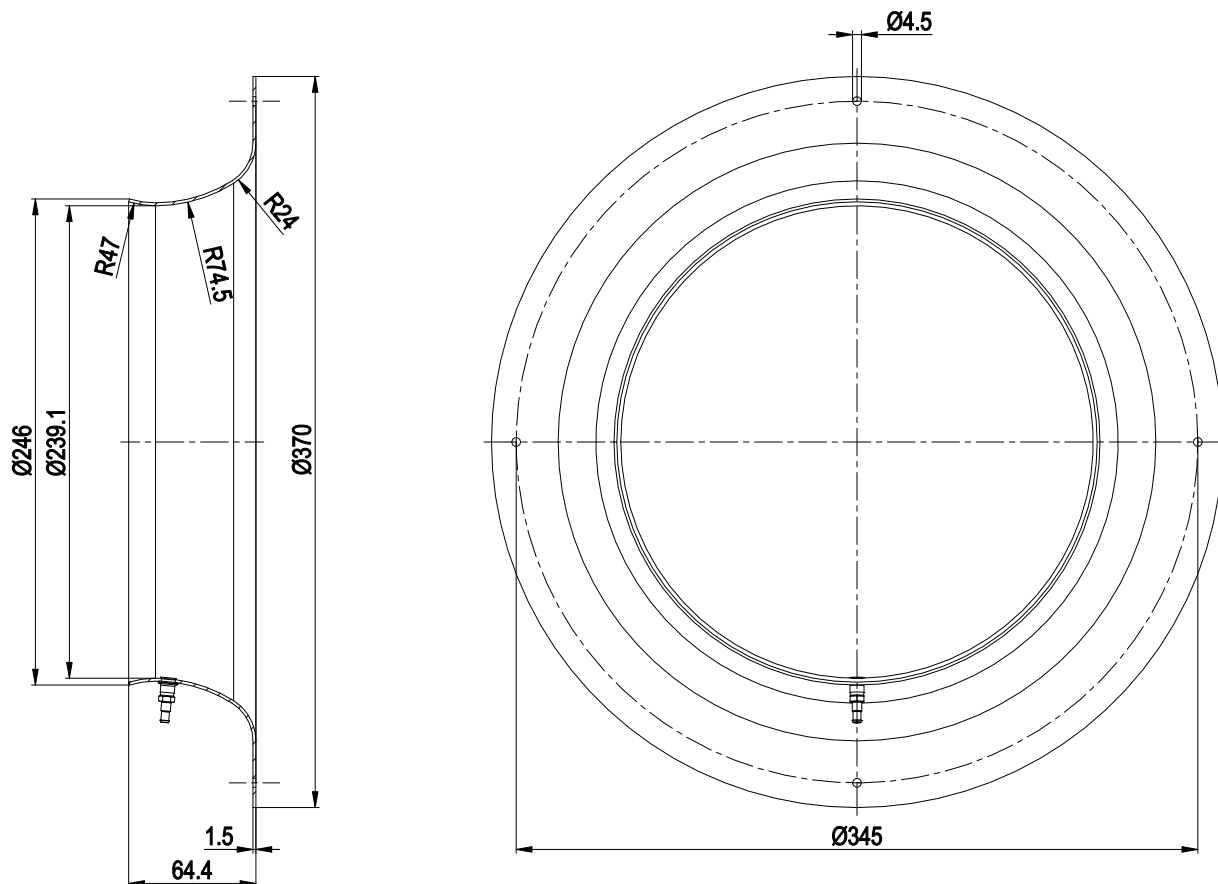
1	Accessory part: Inlet ring 35675-2-4013 with pressure tap (k-factor: 148) not included in scope of delivery
2	Max. clearance for screw 20 mm
3	Cable diameter min. 4 mm, max. 10 mm, tightening torque 4 ± 0.6 Nm
4	Tightening torque 3.5 ± 0.5 Nm

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Accessory part



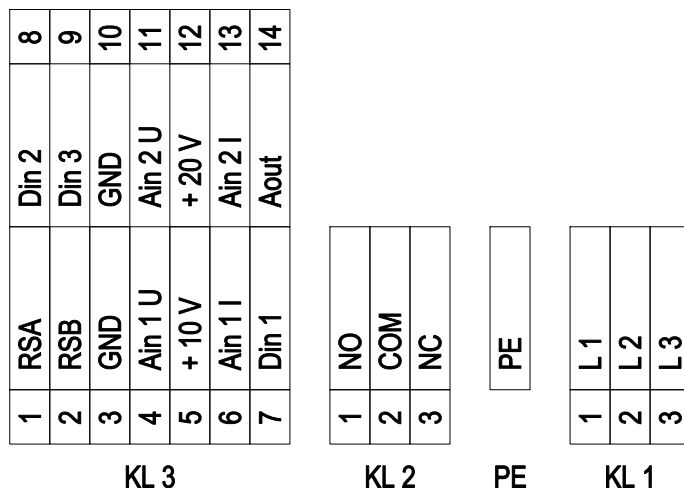
Inlet ring 35675-2-4013 with pressure tap (k-factor: 148)

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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	NO	Status relay, floating status contact; make for failure
KL2	2	COM	Status relay, floating status contact; changeover contact; common connection; contact rating 250 VAC / max. 2 A (AC1) / min. 10 mA
KL2	3	NC	Status relay, floating status contact; break for failure
KL 3	1	RSA	Bus connection RS485, RSA, MODBUS-RTU; SELV
KL 3	2	RSB	Bus connection RS485, RSB, MODBUS-RTU; SELV
KL 3	3 / 10	GND	Reference ground for control interface; SELV
KL 3	4	Ain1 U	Analog input 1, set value: 0-10 V, Ri = 100 kΩ, adjustable curve, only usable as alternative to input Ain1 I; SELV
KL 3	5	+ 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
KL 3	6	Ain1 I	Analog input 1, set value: 4-20 mA, Ri = 100 Ω, adjustable curve, only usable as alternative to input Ain1U; SELV
KL 3	7	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 VDC; SELV
KL 3	8	Din2	Digital input 2: Switching parameter sets 1/2, according to EEPROM setting, the valid or used parameter set can be selected via bus or via digital input DIN2. Parameter set 1: pin open or applied voltage 5-50 VDC Parameter set 2: bridge to GND or applied voltage < 1 VDC; SELV
KL 3	9	Din3	Digital input 3: according to EEPROM setting, the integrated controller's direction of action can be selected as normal/inverse via bus or digital input normal: pin open or applied voltage 5-50 VDC inverse: bridge to GND or applied voltage < 1 VDC; SELV
KL 3	11	Ain2 U	Analog input 2, measured value: 0-10 V, Ri = 100 kΩ, adjustable curve, only usable as alternative to input Ain2I; SELV
KL 3	12	+ 20 V	Fixed voltage output 20 VDC, +20 V ±25/-10%, max. 50 mA, short-circuit-proof power supply for external devices (e.g. sensors); SELV

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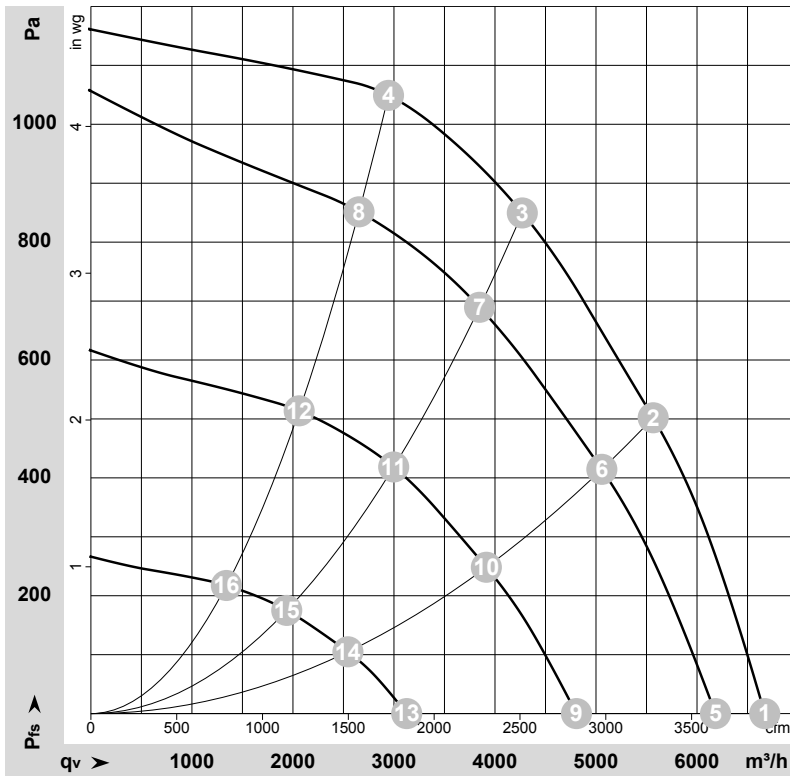
No.	Conn.	Designation	Function/assignment
KL 3	13	Ain2 I	Analog input 2, measured value: 4-20 mA, Ri = 100 Ω, adjustable curve, only usable as alternative to input Ain2U; SELV
KL 3	14	Aout	Analog output 0-10 VDC, max. 5 mA, output of current motor modulation level / motor speed adjustable curve; SELV

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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)	m ³ /h	Pa	cfm	in. wg
1	400	50	2600	1117	1.72	80	88	94	6670	0	3925	0.00
2	400	50	2600	1482	2.29	75	83	89	5565	500	3275	2.01
3	400	50	2600	1700	2.60	75	82	88	4270	850	2515	3.41
4	400	50	2600	1627	2.51	78	86	91	2945	1050	1735	4.22
5	400	50	2425	889	1.39	79	86	92	6185	0	3640	0.00
6	400	50	2380	1129	1.77	73	80	86	5060	415	2975	1.67
7	400	50	2360	1220	1.87	71	79	85	3845	690	2265	2.77
8	400	50	2370	1205	1.88	74	83	88	2655	856	1560	3.44
9	400	50	1870	438	0.78	72	80	85	4805	0	2830	0.00
10	400	50	1850	545	0.92	67	74	80	3915	248	2305	1.00
11	400	50	1835	594	0.97	65	72	78	2995	419	1765	1.68
12	400	50	1840	581	0.97	68	75	81	2060	516	1215	2.07
13	400	50	1225	149	0.35	64	71	76	3125	0	1840	0.00
14	400	50	1205	180	0.39	60	68	72	2545	105	1495	0.42
15	400	50	1200	193	0.43	55	62	68	1940	175	1140	0.70
16	400	50	1200	190	0.42	57	64	70	1340	218	790	0.88

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