

KARTA KATALOGOWA

R3G500-AG06-03

Wentylator promieniowy EC, 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	1700 obr/min
Pobór mocy	2700 W
Pobór prądu	4,3 A
Maks. wydajność	10900 m³/h
Maks. ciśnienie statyczne	925 Pa
Temperatura otoczenia	-25...+60 °C

Dane ErP (UE 327/2011)

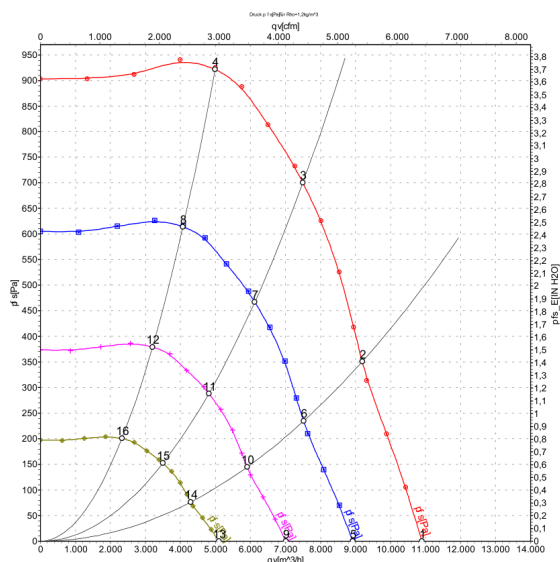
Sprawność całkowita	57,8 %
Przepływ w pkt. optymalnym	6510 m³/h
Przyrost ciśnienia	780 Pa
Regulacja obrotów	tak (0-10 V / PWM)

Budowa

Średnica wirnika	500 mm
Materiał wirnika	blacha aluminiowa
Liczba łopatek	9
Stopień ochrony	IP55
Klasa izolacji	F
Zabezpieczenie silnika	ochrona przed zablokowaniem wirnika
Masa	22 kg

Charakterystyka przepływowa

Curves: Air performance 50 Hz



Measurement: LU-109946-1

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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R3G500-AG06-03

EC centrifugal fan

backward-curved, single-intake



Nominal data

Type	R3G500-AG06-03	
Motor	M3G150-FF	
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	1700
Power consumption	W	2700
Current draw	A	4.3
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 ErP Directive

		Actual	Req. 2015			
01 Overall efficiency η_{es}	%	57.8	55.8	09 Power consumption P_{ed}	kW	2.58
02 Measurement category		A		09 Air flow q_v	m³/h	6510
03 Efficiency category		Static		09 Pressure increase p_{fs}	Pa	780
04 Efficiency grade N		64	62	10 Speed (rpm) n	min ⁻¹	1715
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-109946



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Technical description

Weight	22.0 kg
Fan size	500 mm
Rotor surface	Painted black
Electronics housing material	Die-cast aluminum
Impeller material	Sheet aluminum
Number of blades	9
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	IP55
Insulation class	"F"
Moisture (F) / Environmental (H) protection class	F4-1
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 - Alarm relay - Integrated PID controller - Motor current limitation - PFC, passive - RS-485 ebmBUS - Soft start - Control input 0-10 VDC / PWM - Control interface with SELV potential safely disconnected from supply - 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)
Touch current according to IEC 60990 (measuring circuit Fig. 4, TN system)	<= 3.5 mA
Electrical hookup	Via 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	UL 2111; VDE; CSA C22.2 No. 77; EAC

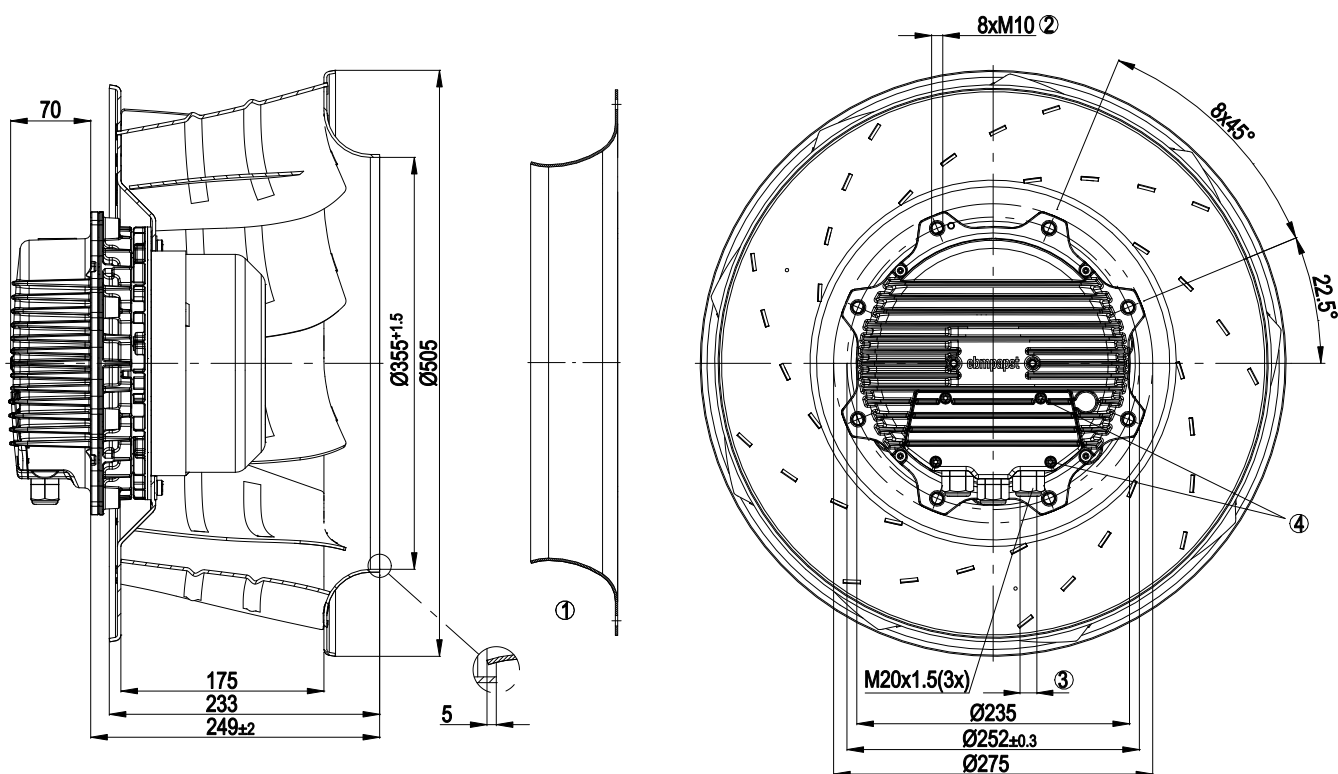


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Product drawing



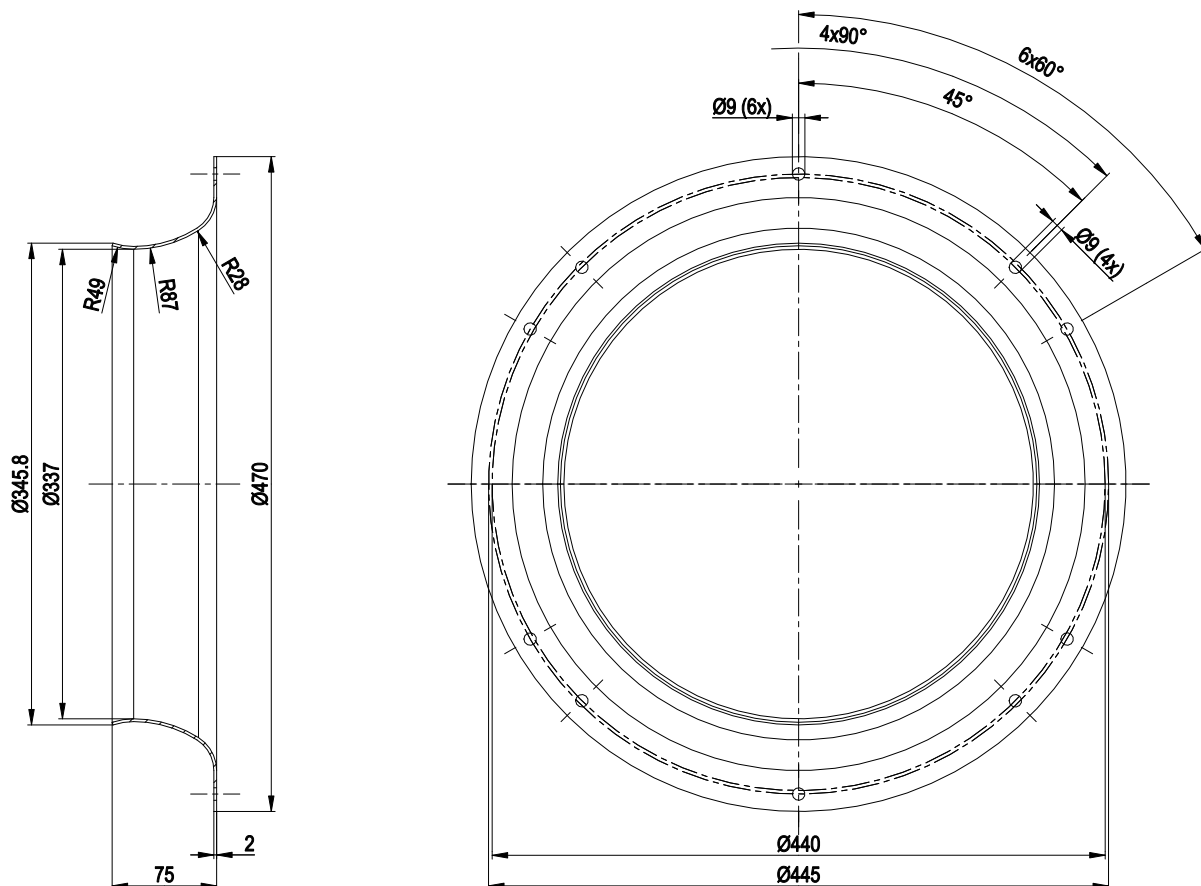
- | | |
|---|---|
| 1 | Accessory part: Inlet ring 63072-2-4013, not included in scope of delivery. |
| 2 | Max. clearance for screw 25 mm |
| 3 | Cable diameter min. 4 mm, max. 10 mm, tightening torque 4 ± 0.6 Nm |
| 4 | Tightening torque 3.5 ± 0.5 Nm |

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Accessory part



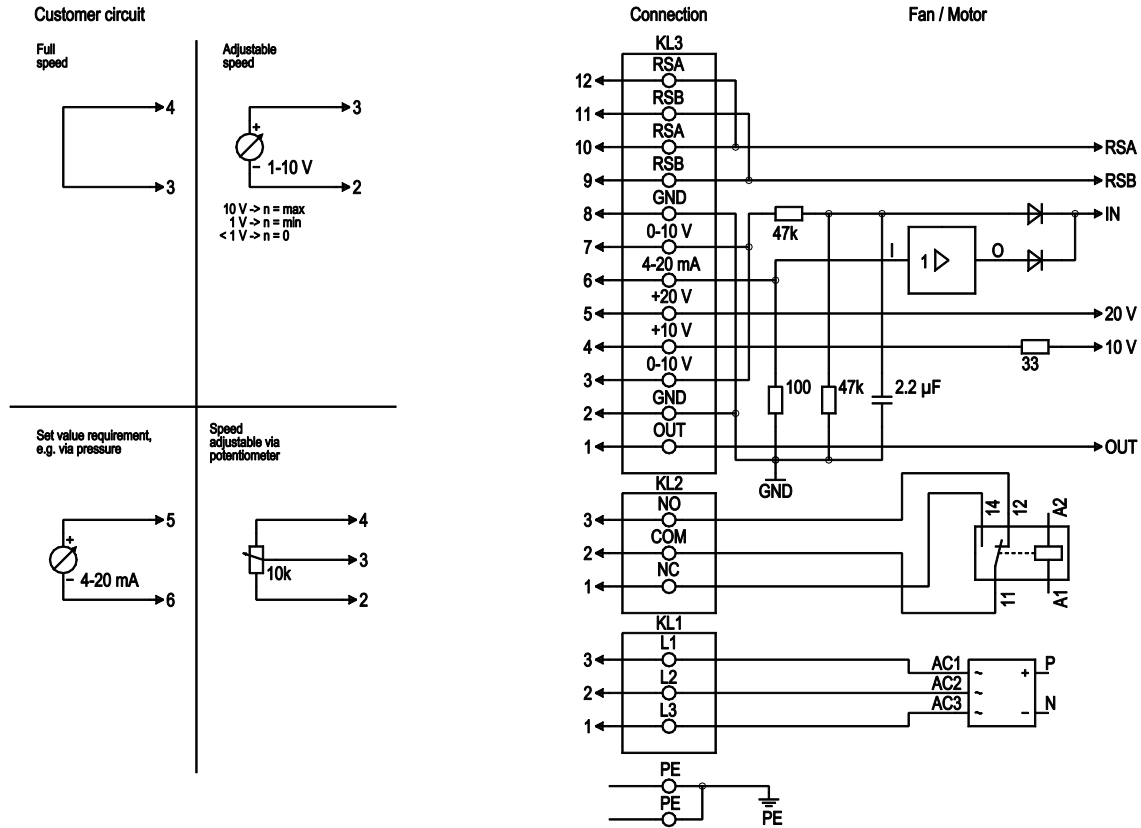
inlet ring 63072-2-4013 not included in scope of delivery

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Connection diagram



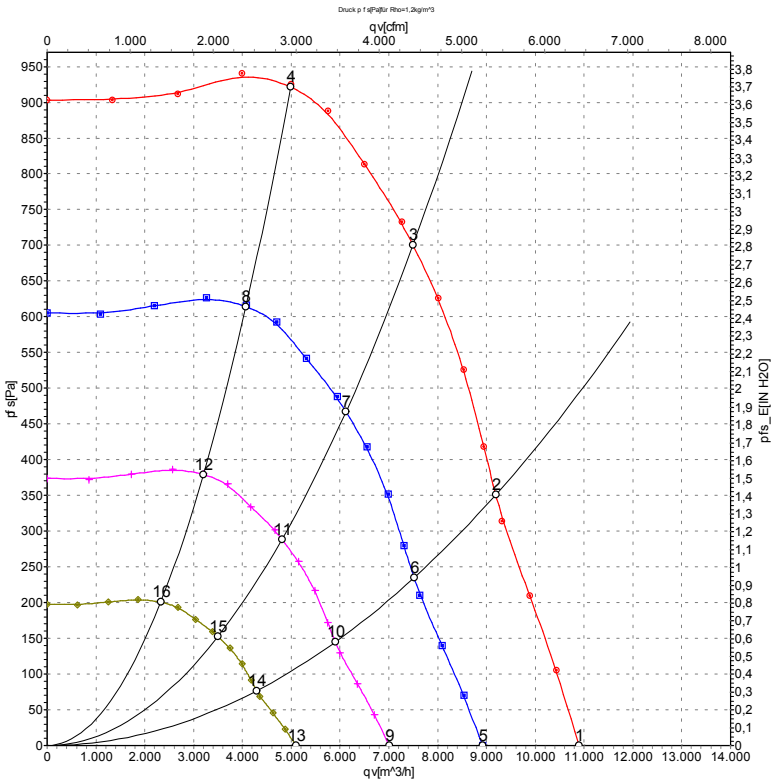
No.	Conn.	Designation	Function/assignment
PE		PE	Protective earth terminal
KL1	1, 2, 3	L1, L2, L3	Power supply 50/60 Hz
KL2	1	NC	Floating status contact, break for failure
KL2	2	COM	floating status contact, changeover contact, common connection (2 A, max. 250 VAC, min. 10 mA, AC1)
KL2	3	NO	Floating status contact, make for failure
KL3	1	OUT	Analog output, 0-10 VDC, max. 3 mA, SELV, output of current motor modulation level: 1 V corresponds to 10 % modulation level. 10 V corresponds to 100 % modulation level.
KL3	2, 8	GND	Reference ground for control interface, SELV
KL3	3, 7	0-10 V	Use control / current sensor value input 0-10 VDC, impedance 100 kΩ only as alternative to 4-20 mA input, SELV
KL3	4	+10 V	Voltage output 10 VDC (±3 %), max. 10 mA, power supply for external devices (e.g. potentiometer), SELV
KL3	5	+20 V	Voltage output 20 VDC (+25% / -10%), max. 50 mA, power supply for external devices (e.g. sensors); SELV
KL3	6	4-20 mA	Use control / current sensor value input 4-20 mA, impedance 100 Ω only as alternative to 0-10 V input, SELV
KL3	9, 11	RSB	RS485 interface for ebmBUS, RSB, SELV
KL3	10, 12	RSA	RS485 interface for ebmBUS, RSA, SELV

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Measured values

	U	f	n	P _{ed}	I	LpA _{in}	LwA _{in}	LwA _{out}	qv	P _{fs}	qv	P _{fs}
	V	Hz	min ⁻¹	W	A	dB(A)	dB(A)	dB(A)	m³/h	Pa	CFM	inH2O
1	400	50	1700	1904	2.90	84	91	96	10900	0	6415	0.00
2	400	50	1700	2307	3.49	80	87	93	9190	350	5410	1.41
3	400	50	1700	2700	4.30	76	83	90	7495	700	4410	2.81
4	400	50	1700	2401	3.64	76	83	90	4990	925	2935	3.71
5	400	50	1400	1045	1.59	80	87	92	8925	0	5250	0.00
6	400	50	1400	1262	1.91	76	82	88	7515	234	4425	0.94
7	400	50	1400	1422	2.16	72	78	85	6120	468	3605	1.88
8	400	50	1400	1306	1.98	72	78	85	4075	616	2395	2.47
9	400	50	1100	507	0.77	75	81	86	7010	0	4125	0.00
10	400	50	1100	612	0.93	70	77	83	5905	145	3475	0.58
11	400	50	1100	690	1.05	66	73	80	4810	289	2830	1.16
12	400	50	1100	634	0.96	66	73	80	3200	380	1885	1.53
13	400	50	800	195	0.30	68	75	79	5100	0	3000	0.00
14	400	50	800	236	0.36	63	70	76	4295	77	2530	0.31
15	400	50	800	265	0.40	59	66	73	3500	153	2060	0.61
16	400	50	800	244	0.37	60	66	73	2325	201	1370	0.81

U = Power supply · 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 · qv = Air flow · P_{fs} = Pressure increase

