

KARTA KATALOGOWA

R3G500-AF34-01

Wentylator promieniowy EC, 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	1160 obr/min
Pobór mocy	810 W
Pobór prądu	1,55 A
Maks. wydajność	7640 m³/h
Maks. ciśnienie statyczne	410 Pa
Maks. temp. otoczenia	+60 °C

Budowa

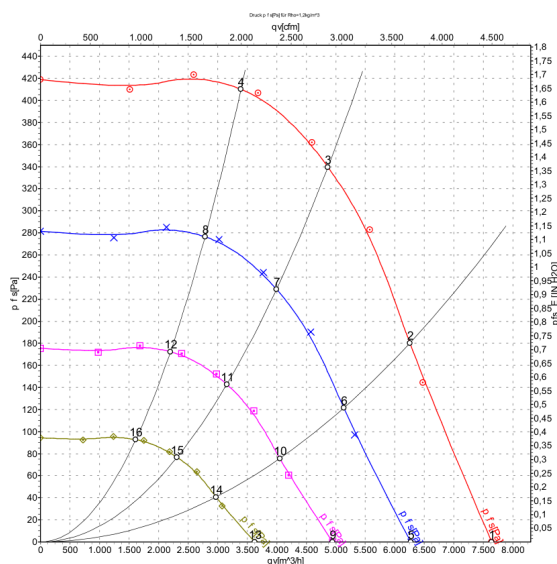
Średnica wirnika	500 mm
Materiał wirnika	blacha aluminiowa
Liczba łopatek	9
Stopień ochrony	IP54
Klasa izolacji	B
Zabezpieczenie silnika	termik (TOP)
Masa	13 kg

Dane ErP (UE 327/2011)

Sprawność całkowita	60,7 %
Przepływ w pkt. optymalnym	4600 m³/h
Przyrost ciśnienia	350 Pa
Regulacja obrotów	tak (0–10 V / PWM)

Charakterystyka przepływowa

Curves: Air performance 50 Hz



Measurement: LU-105321-1

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-AF34-01

EC centrifugal fan

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	R3G500-AF34-01	
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	1160
Power consumption	W	810
Current draw	A	1.55
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}	%	60.7	50.5	09 Power consumption P_{ed}	kW	0.8
02 Measurement category		A		09 Air flow q_v	m ³ /h	4600
03 Efficiency category		Static		09 Pressure increase p_{fs}	Pa	350
04 Efficiency grade N		72.2	62	10 Speed (rpm) n	min ⁻¹	1155
05 Variable speed drive		Yes		11 Specific ratio*		1.00

Data obtained at optimum efficiency level.

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

LU-105321

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).



R3G500-AF34-01

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backward-curved, single-intake

Technical description

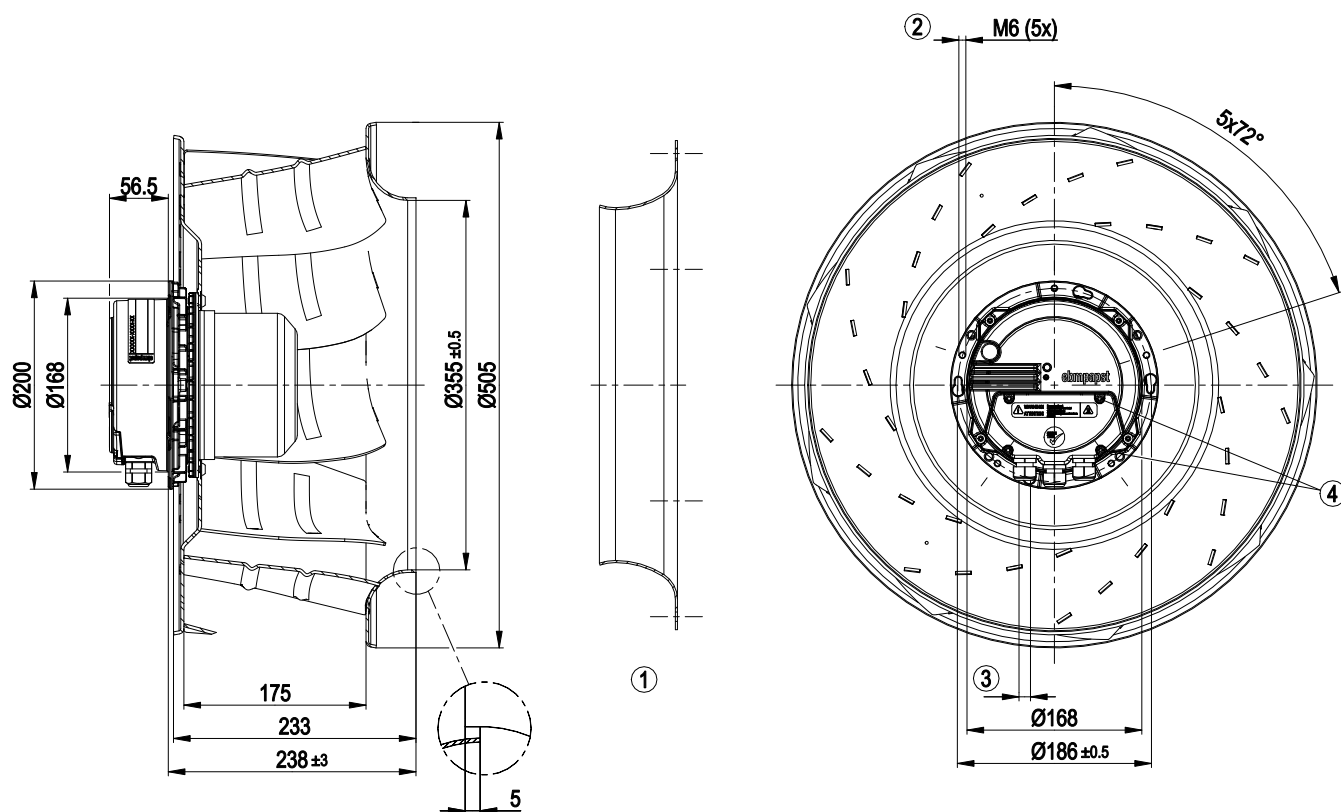
Weight	13.0 kg
Size	500 mm
Motor size	112
Rotor surface	Painted black
Electronics housing material	Die-cast aluminum
Impeller material	Sheet aluminum
Number of blades	9
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	IP54
Insulation class	"B"
Moisture (F) / Environmental (H) 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 - 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 the mains - Thermal overload protection for electronics/motor - Line undervoltage / phase failure detection
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
With cable	Variable
Protection class	I (according to EN 61800-5-1)
Conformity with standards	EN 61800-5-1; CE; UKCA
Approval	EAC

R3G500-AF34-01

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Product drawing



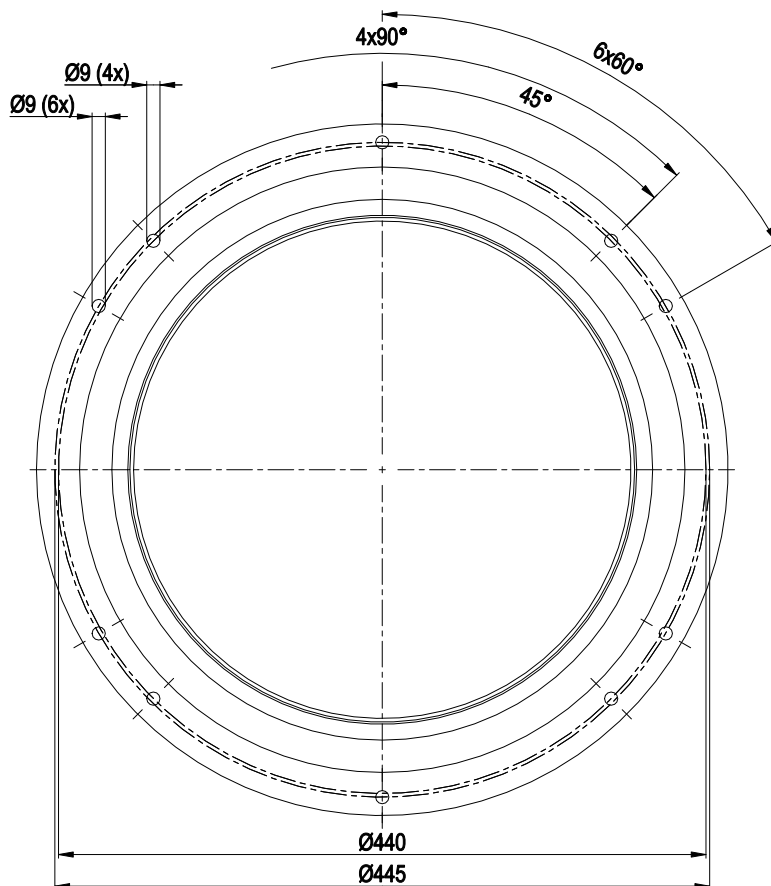
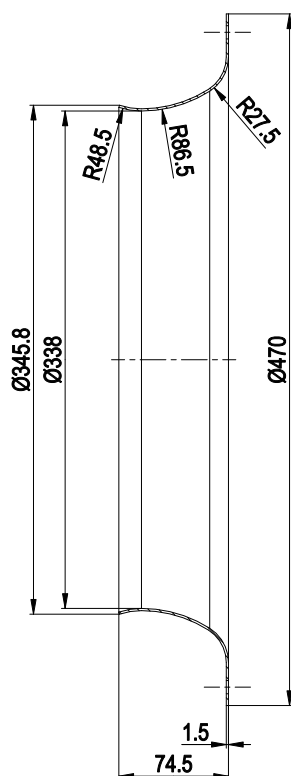
1	Accessory part: inlet ring 63072-2-4013, not included in scope of delivery.
2	Max. clearance for screw 16 mm
3	Cable diameter min. 4 mm, max. 10 mm; tightening torque 2.5 ± 0.4 Nm
4	Tightening torque 3.5 ± 0.5 Nm

R3G500-AF34-01

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Accessory part



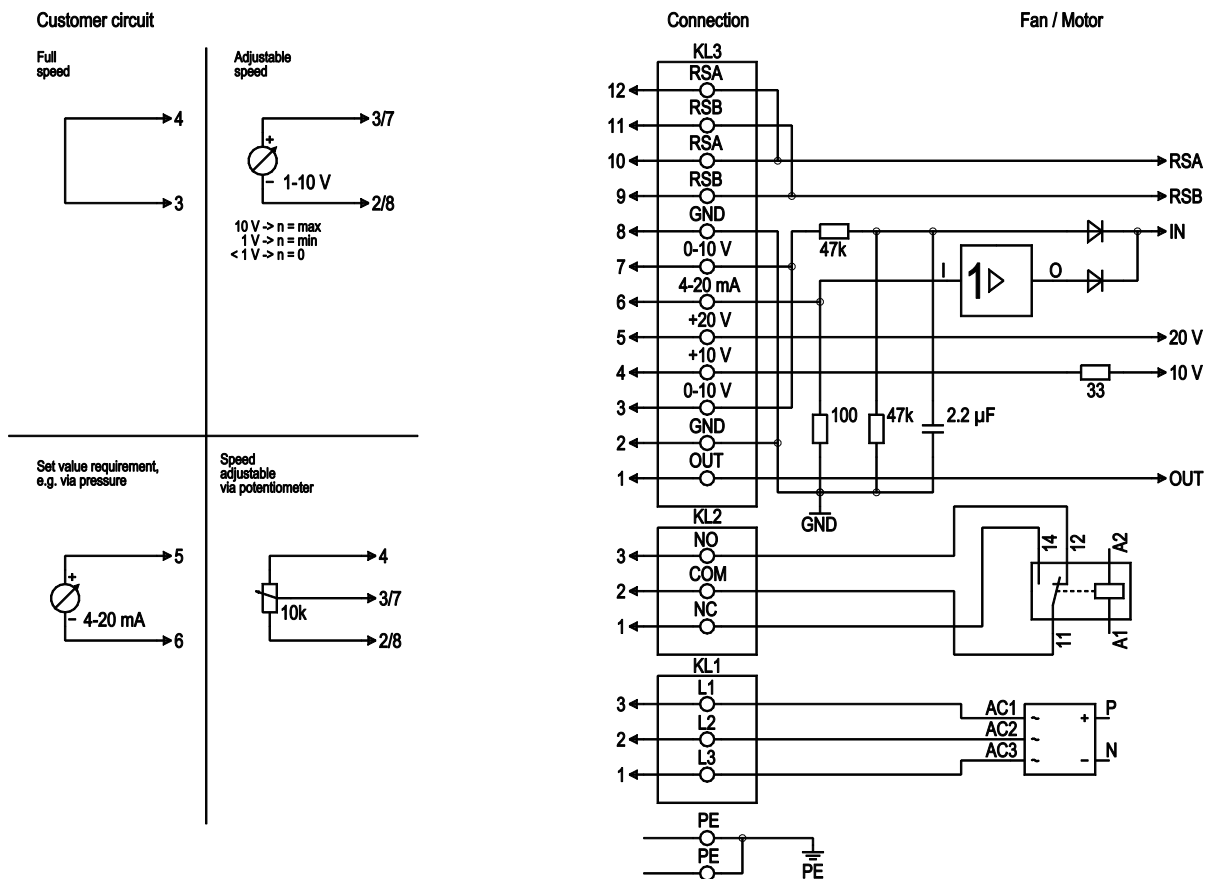
Inlet ring 63072-2-4013

R3G500-AF34-01

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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

R3G500-AF34-01

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No.	Conn.	Designation	Function/assignment
KL3	10, 12	RSA	RS485 interface for ebmBUS, RSA, SELV

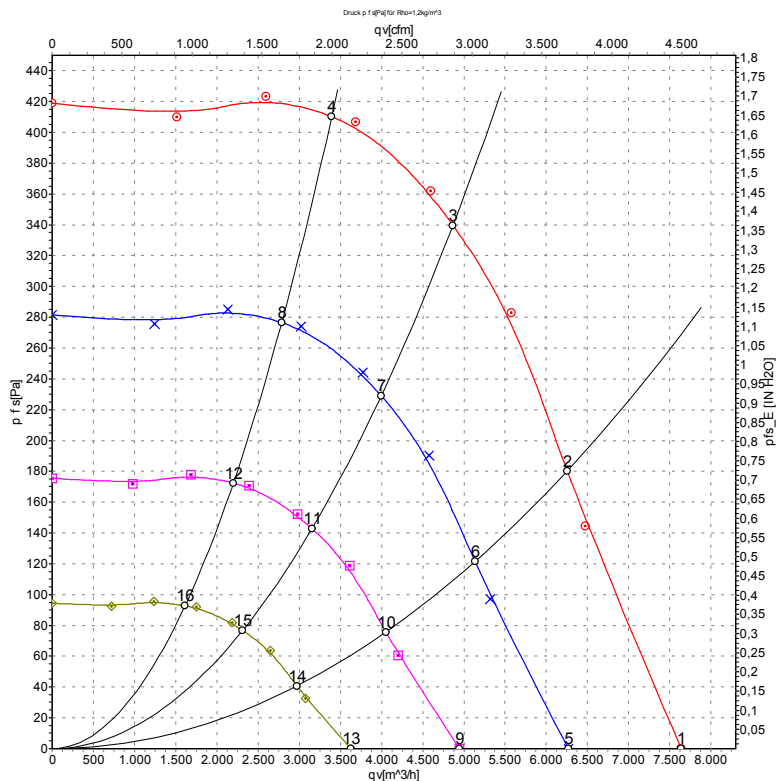


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Measured values

	U	f	n	P _{ed}	I	LpA _{in}	LwA _{in}	LwA _{out}	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	1160	563	0.96	76	83	86	7640	0	4495	0.00
2	400	50	1160	721	1.22	69	76	80	6255	180	3680	0.72
3	400	50	1160	810	1.55	64	71	77	4865	340	2865	1.36
4	400	50	1160	726	1.22	64	72	77	3395	410	2000	1.65
5	400	50	950	311	0.53	72	79	81	6265	0	3690	0.00
6	400	50	950	399	0.67	65	72	76	5135	120	3020	0.48
7	400	50	950	445	0.73	60	67	73	3995	229	2350	0.92
8	400	50	950	402	0.68	60	67	73	2785	277	1640	1.11
9	400	50	750	153	0.26	67	74	76	4945	0	2910	0.00
10	400	50	750	196	0.33	60	67	71	4055	75	2385	0.30
11	400	50	750	219	0.36	55	62	68	3155	143	1855	0.57
12	400	50	750	198	0.33	55	62	68	2200	173	1295	0.69
13	400	50	550	60	0.10	60	67	69	3630	0	2135	0.00
14	400	50	550	77	0.13	53	60	64	2975	40	1750	0.16
15	400	50	550	86	0.14	48	55	61	2315	77	1360	0.31
16	400	50	550	78	0.13	48	55	61	1615	93	950	0.37

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

