

R3G500-PA34-19 ebmpapst Datasheet

sales@fansco.com

www.fansco.com

Limited partnership · Headquarters Muldingen

Amtsgericht (court of registration) Stuttgart · HRA 590344

General partner Elektrobau Muldingen GmbH · Headquarters Muldingen

Amtsgericht (court of registration) Stuttgart · HRB 590142

Nominal data

Type	R3G500-PA34-19	
Motor	M3G150-FF	
Phase		3~
Nominal voltage	VAC	200
Nominal voltage range	VAC	200 .. 240
Frequency	Hz	50/60
Method of obtaining data		ml
Status		prelim.
Speed (rpm)	min ⁻¹	1810
Power consumption	W	3000
Current draw	A	9.1
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	40

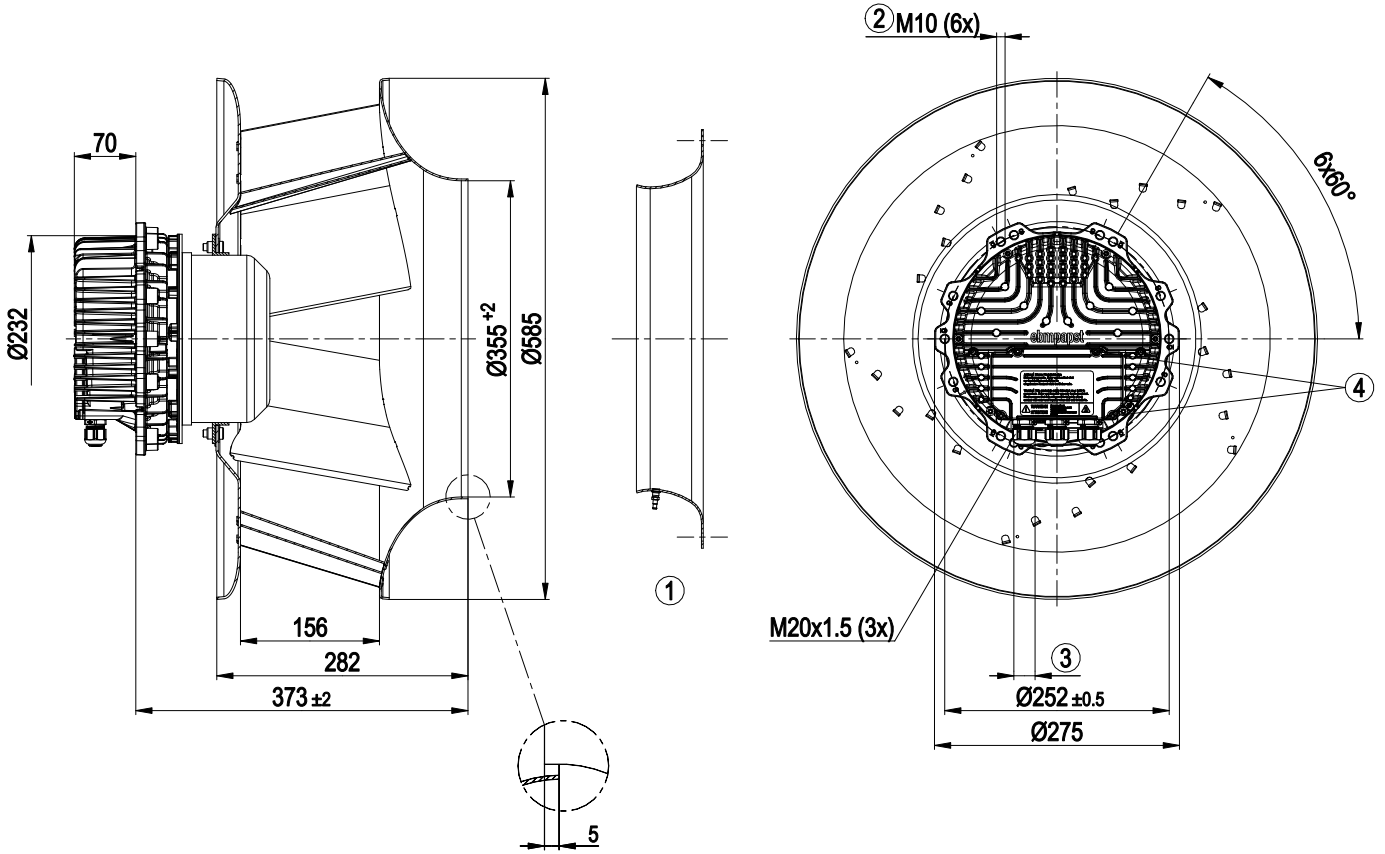
ml = Max. load · me = Max. efficiency · fa = Free air · cs = Customer specification · ce = Customer equipment
Subject to change



Technical description

Weight	22 kg
Size	500 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 mounting	Ball bearing
Technical features	<ul style="list-style-type: none"> - Output 10 VDC, max. 10 mA - Output 20 VDC, max. 50 mA - Output for slave 0-10 V - Operation and alarm display - 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 (industrial environment)
EMC interference emission	According to EN 61000-6-4 (industrial environment)
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	UL 1004-7 + 60730; CSA C22.2 No. 77 + CAN/CSA-E60730-1; EAC

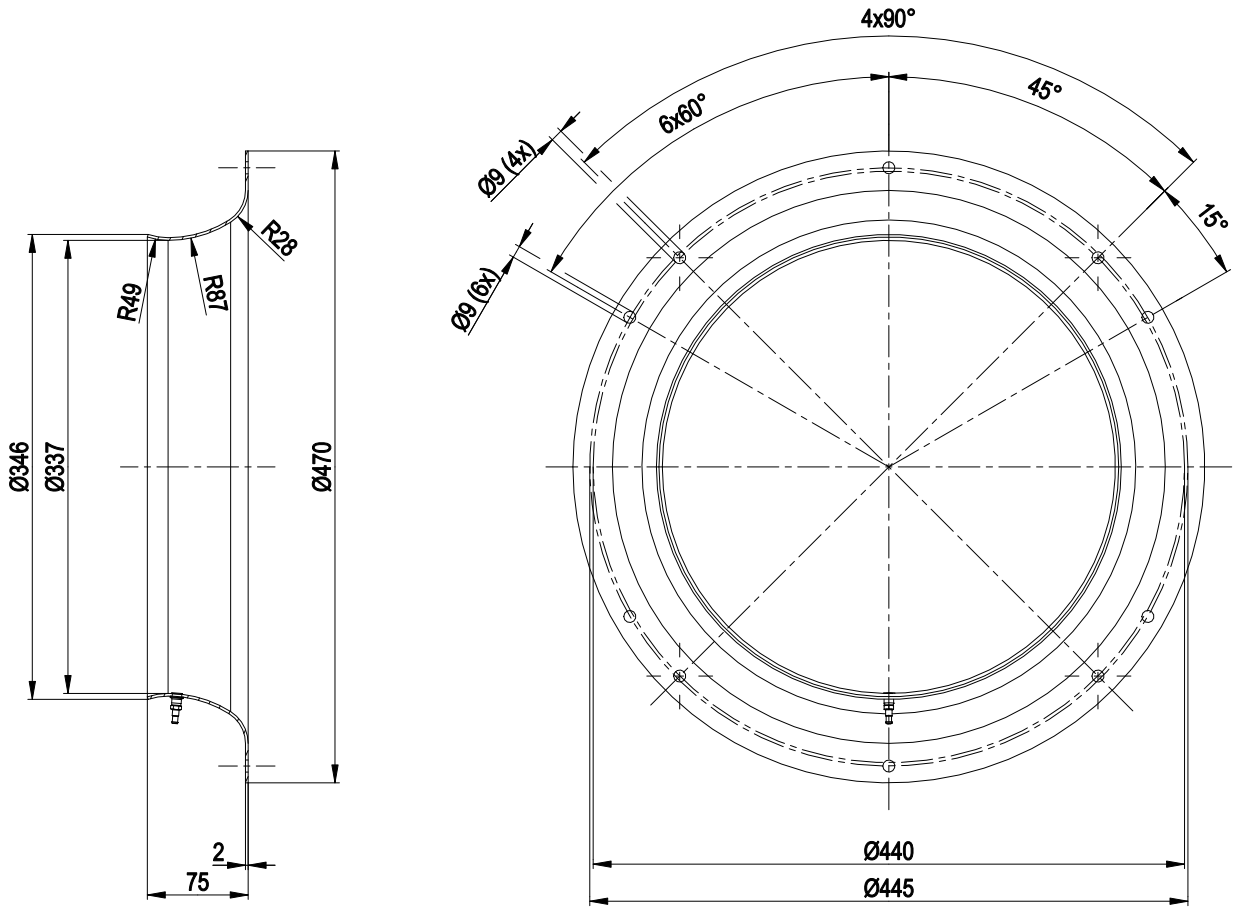
Product drawing



1	Accessory part: Inlet ring 64025-2-4013 with pressure tap (k-factor: 281) 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



Accessory part



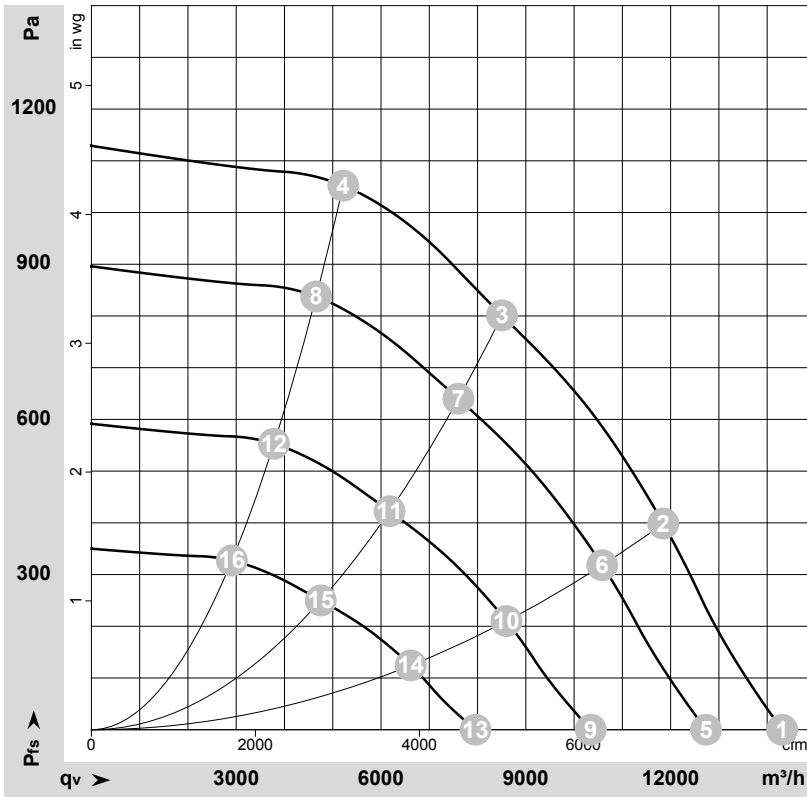
Inlet ring 64025-2-4013 with pressure tap not included in scope of delivery



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



Curves: Air performance 50 Hz



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

Measurement: LU-181445-1

Air performance measured according to ISO 5801 installation category A. For detailed information on the measurement setup, contact ebmpapst. 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.

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	200	50	1810	1663	5.11	93	101	100	14310	0	8425	0.00
2	200	50	1810	2429	7.42	86	93	93	11845	400	6975	1.61
3	200	50	1810	3000	9.10	75	83	87	8505	800	5005	3.21
4	200	50	1810	2780	8.51	78	85	90	5215	1050	3070	4.22
5	200	50	1600	1172	3.60	90	98	97	12735	0	7495	0.00
6	200	50	1600	1732	5.29	83	90	91	10585	321	6230	1.29
7	200	50	1600	2123	6.50	73	80	84	7600	640	4475	2.57
8	200	50	1600	1976	6.05	75	83	87	4655	841	2740	3.38
9	200	50	1300	629	1.93	85	92	92	10345	0	6090	0.00
10	200	50	1300	929	2.84	78	84	85	8600	212	5060	0.85
11	200	50	1300	1138	3.49	67	75	79	6175	423	3635	1.70
12	200	50	1300	1060	3.24	70	77	82	3785	555	2225	2.23
13	200	50	1000	286	0.88	78	86	85	7960	0	4685	0.00
14	200	50	1000	423	1.29	71	78	79	6615	125	3895	0.50
15	200	50	1000	518	1.59	61	68	72	4750	250	2795	1.00
16	200	50	1000	482	1.48	63	71	75	2910	329	1715	1.32

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 · q_v = Air flow · P_{fs} = Pressure increase

