

ebm-papst Mulfingen GmbH & Co. KG

Bachmühle 2 · D-74673 Mulfingen

Phone +49 7938 81-0

Fax +49 7938 81-110

info1@de.ebmpapst.com

www.ebmpapst.com

Limited partnership · Headquarters Mulfingen

Amtsgericht (court of registration) Stuttgart · HRA 590344

General partner Elektrobau Mulfingen GmbH · Headquarters Mulfingen

Amtsgericht (court of registration) Stuttgart · HRB 590142

Nominal data

Type	R3G310-RB01-03	
Motor	M3G074-CF	
Phase		1~
Nominal voltage	VAC	230
Nominal voltage range	VAC	200 .. 240
Frequency	Hz	50/60
Method of obtaining data		ml
Speed (rpm)	min ⁻¹	1525
Power consumption	W	150
Current draw	A	1.2
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 Commission Regulation (EU) 327/2011 (EN 17166)

		Actual	Req. 2015			
01 Overall efficiency η_{es}	%	65.8	42.8	09 Power consumption P_{ed}	kW	0.14
02 Measurement category		A		09 Air flow q_v	m ³ /h	1355
03 Efficiency category		Static		09 Pressure increase p_{fs}	Pa	229
04 Efficiency grade N		85	62	10 Speed (rpm) n	min ⁻¹	1520
05 Variable speed drive		Yes		11 Specific ratio*		1.00

Data obtained at optimum efficiency level.

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

LU-137969

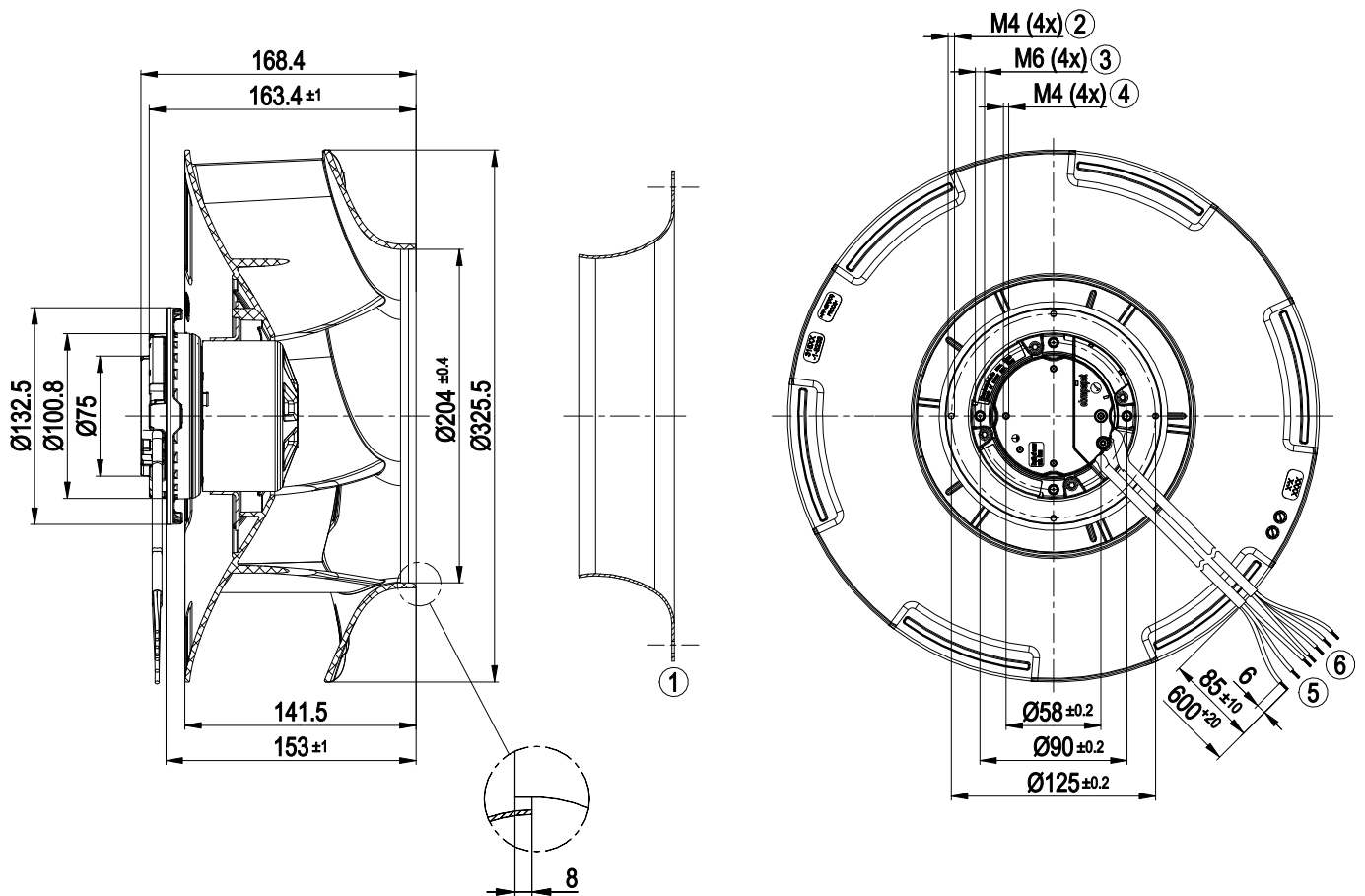
The efficiency values displayed for achieving conformity with the Ecodesign Regulation EU 327/2011 has been reached with defined air duct components (e.g. inlet rings). The dimensions must be requested from ebm-papst. If other air conduction geometries are used on the installation side, the ebm-papst 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).



Technical description

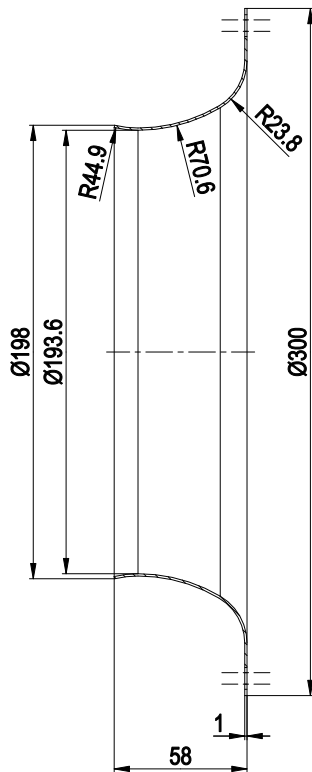
Weight	2.9 kg
Size	310 mm
Motor size	74
Impeller material	PP plastic
Number of blades	6
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	IP54
Insulation class	"B"
Moisture (F) / Environmental (H) protection class	H1
Max. permitted ambient temp. for motor (transport/storage)	+ 80 °C
Min. permitted ambient temp. for motor (transport/storage)	- 40 °C
Installation position	Any
Condensation drainage holes	On rotor side
Cooling hole/opening	On rotor side
Mode	S1
Motor bearing	Ball bearing
Technical features	- Output 10 VDC, max. 10 mA - Tach output - Power limiter - Motor current limitation - Soft start - Control input 0-10 VDC / PWM - Control interface with SELV potential safely disconnected from the mains - Overvoltage detection - Thermal overload protection for electronics/motor - Line undervoltage 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
Motor protection	Electronic motor protection
With cable	Variable
Protection class	I (with customer connection of protective earth)
Conformity with standards	CE; UKCA
Approval	EAC; UL 1004-7 + 60730-1; CSA C22.2 No. 77 + CAN/CSA-E60730-1; CCC

Product drawing

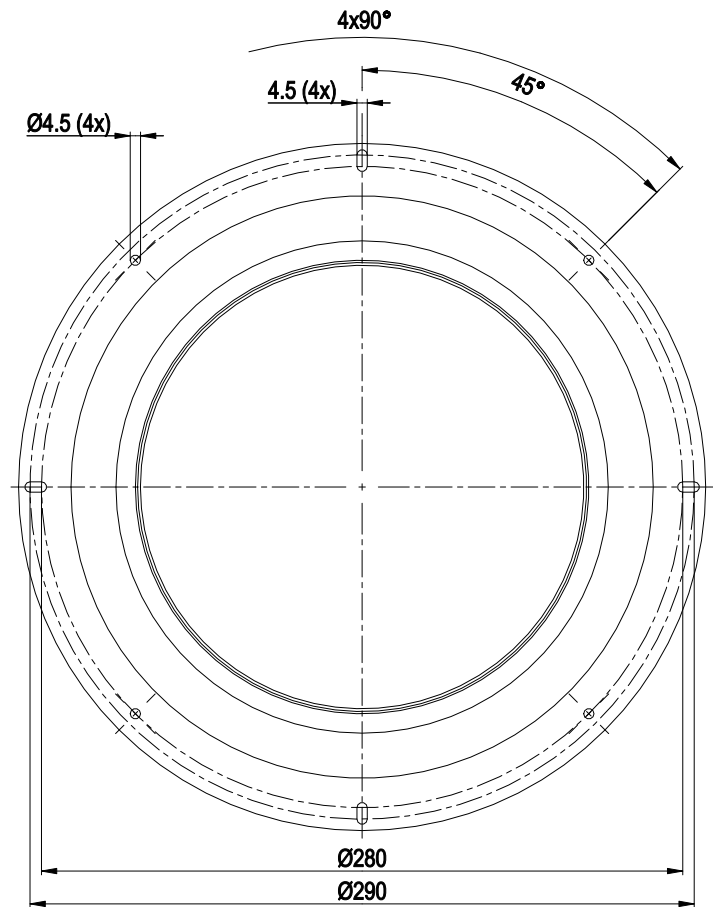


1	Accessory part: inlet ring 31000-2-4013 not included in scope of delivery, other inlet rings on request
2	Max. clearance for screw 10 mm
3	Max. clearance for screw 10 mm
4	Max. clearance for screw 5 mm
5	Cable PVC AWG20 3x splice
6	Cable PVC AWG22 4x splice

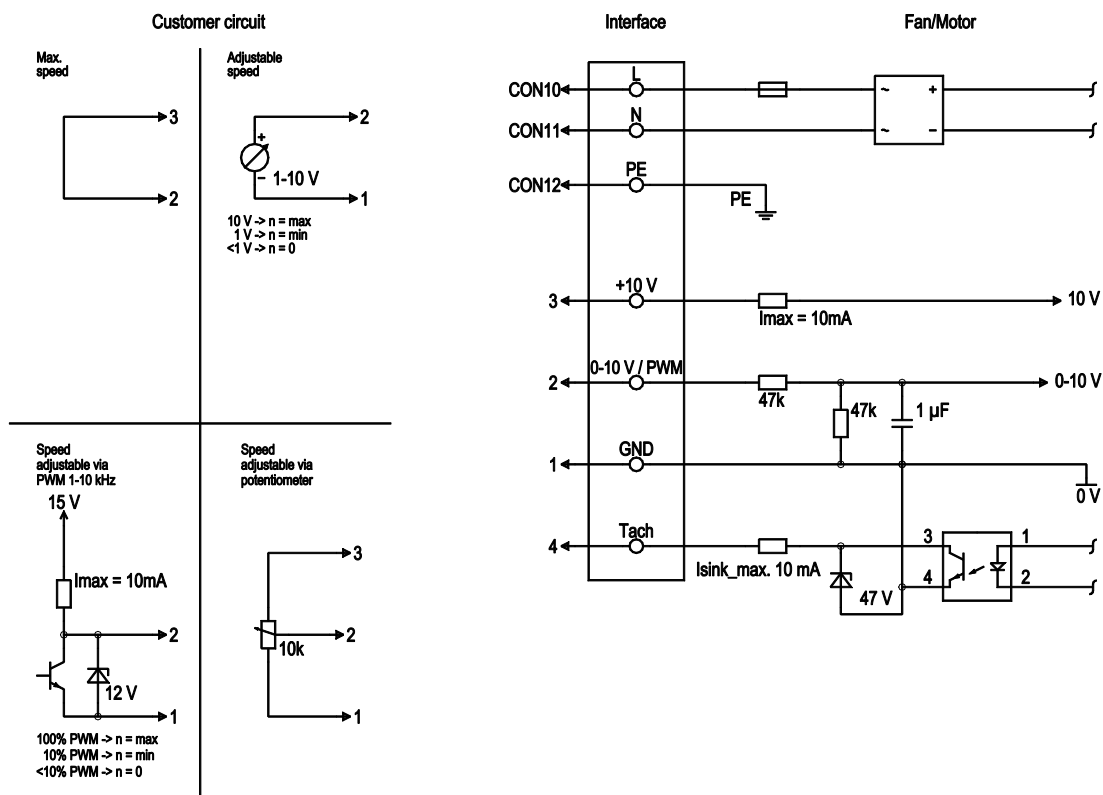
Accessory part



Inlet ring 31000-2-4013

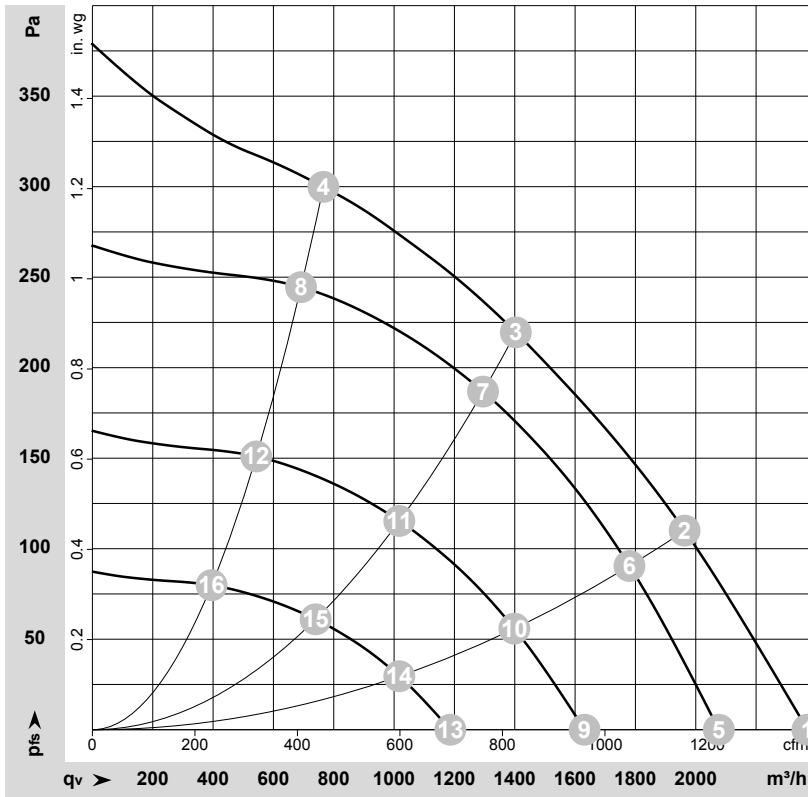


Connection diagram



No.	Conn.	Designation	Color	Function/assignment
	CON10	L	black	Supply connection, power supply, phase, see nameplate for voltage range
	CON11	N	blue	Supply connection, power supply, neutral conductor, see nameplate for voltage range
	CON12	PE	green/yellow	Ground connection
	2	0- 10V PWM	yellow	0-10 V / PWM control input, $R_i=100\text{ k}\Omega$, SELV
	4	Tach	white	Tach output, open collector, 1 pulse per revolution, $I_{sink\ max} = 10\text{ mA}$, SELV
	3	+10 V	red	Fixed voltage output 10 VDC $\pm 3\%$, $I_{max.} 10\text{ mA}$, short-circuit-proof, power supply for ext. devices (e.g. pot), SELV
	1	GND	blue	Reference ground for control interface, SELV

Curves: Air performance 50 Hz



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

Measurement: LU-137969-1

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.

Measured values

	Wired	U	f	n	P _{ed}	I	LpA _{in}	LwA _{in}	q _v	p _{fs}	q _v	p _{fs}
		V	Hz	min ⁻¹	W	A	dB(A)	dB(A)	m ³ /h	Pa	cfm	in. wg
1	1~	230	50	1600	115	0.95	62	69	2370	0	1395	0.00
2	1~	230	50	1545	138	1.13	57	65	1965	110	1155	0.44
3	1~	230	50	1525	150	1.20	52	59	1405	220	825	0.88
4	1~	230	50	1550	134	1.11	55	63	765	300	450	1.20
5	1~	230	50	1400	77	0.64	59	66	2075	0	1220	0.00
6	1~	230	50	1400	103	0.84	55	62	1780	91	1050	0.37
7	1~	230	50	1400	117	0.96	50	57	1295	187	760	0.75
8	1~	230	50	1400	99	0.82	53	60	690	245	405	0.98
9	1~	230	50	1100	37	0.31	53	60	1630	0	960	0.00
10	1~	230	50	1100	50	0.41	49	56	1400	56	825	0.22
11	1~	230	50	1100	57	0.47	44	51	1015	115	600	0.46
12	1~	230	50	1100	48	0.40	47	54	545	151	320	0.61
13	1~	230	50	800	14	0.12	45	52	1185	0	700	0.00
14	1~	230	50	800	19	0.16	41	48	1015	30	600	0.12
15	1~	230	50	800	22	0.18	36	43	740	61	435	0.24
16	1~	230	50	800	18	0.15	39	46	395	80	230	0.32

Wired = Wiring · 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
q_v = Air flow · p_{fs} = Pressure increase

