R3G310-AO52-16

EC centrifugal fan

backward-curved, single-intake

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Amtsgericht (court of registration) Stuttgart · HRB 590142

Nominal data

Type	**R3G310-AO52-16**
Motor	**M3G074-CF**

Phase		1~
Nominal voltage	VAC	230
Nominal voltage range	VAC	200 .. 277
Frequency	Hz	50/60
Method of obtaining data		fa
Speed (rpm)	min^{-1}	1925
Power consumption	W	150
Current draw	A	1.1
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	55

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

		Actual	Req. 2015
01 Overall efficiency η_{es}	%	59.9	43.5
02 Measurement category		A	
03 Efficiency category		Static	
04 Efficiency grade N		78.4	62
05 Variable speed drive		Yes	

09 Power consumption P_{ed}	kW	0.17
09 Air flow q_v	m^3/h	1300
09 Pressure increase p_{fs}	Pa	250
10 Speed (rpm) n	min^{-1}	1705
11 Specific ratio*		1.00

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 Pa

LU-69203

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Technical description

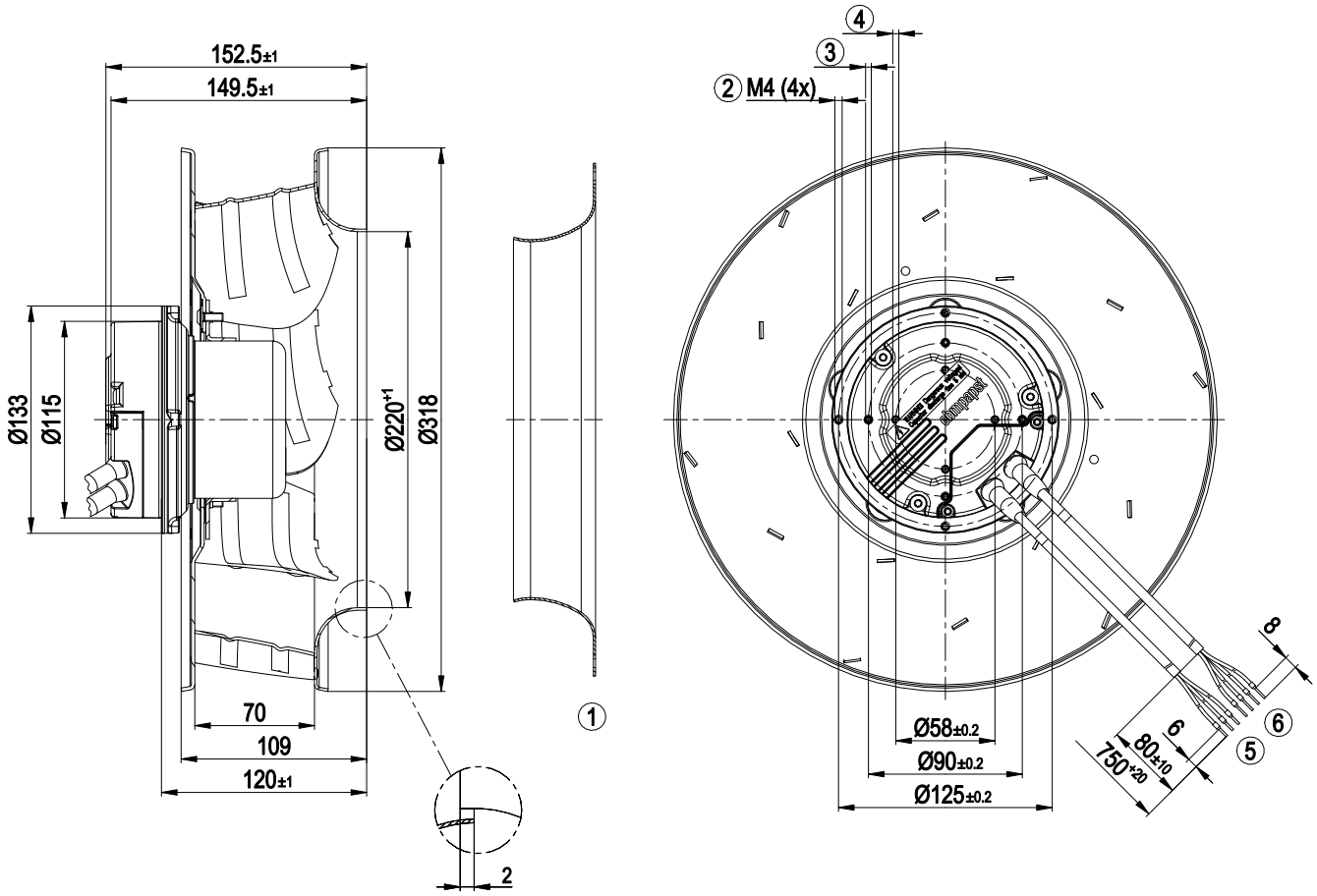
Weight	3 kg
Size	310 mm
Motor size	74
Rotor surface	Painted black
Electronics housing material	Die-cast aluminum
Impeller material	Sheet aluminum
Number of blades	6
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	IP44; installation- and position-dependent
Insulation class	"B"
Moisture (F) / Environmental (H) protection class	H0 - dry environment
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	None
Mode	S1
Motor mounting	Ball bearing
Technical features	- Output 10 VDC, max. 1.1 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 - Thermal overload protection for motor
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	Thermal overload protector (TOP) internally connected
With cable	Variable
Protection class	I (with customer connection of protective earth)
Conformity with standards	EN 60335-1; CE

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Product drawing



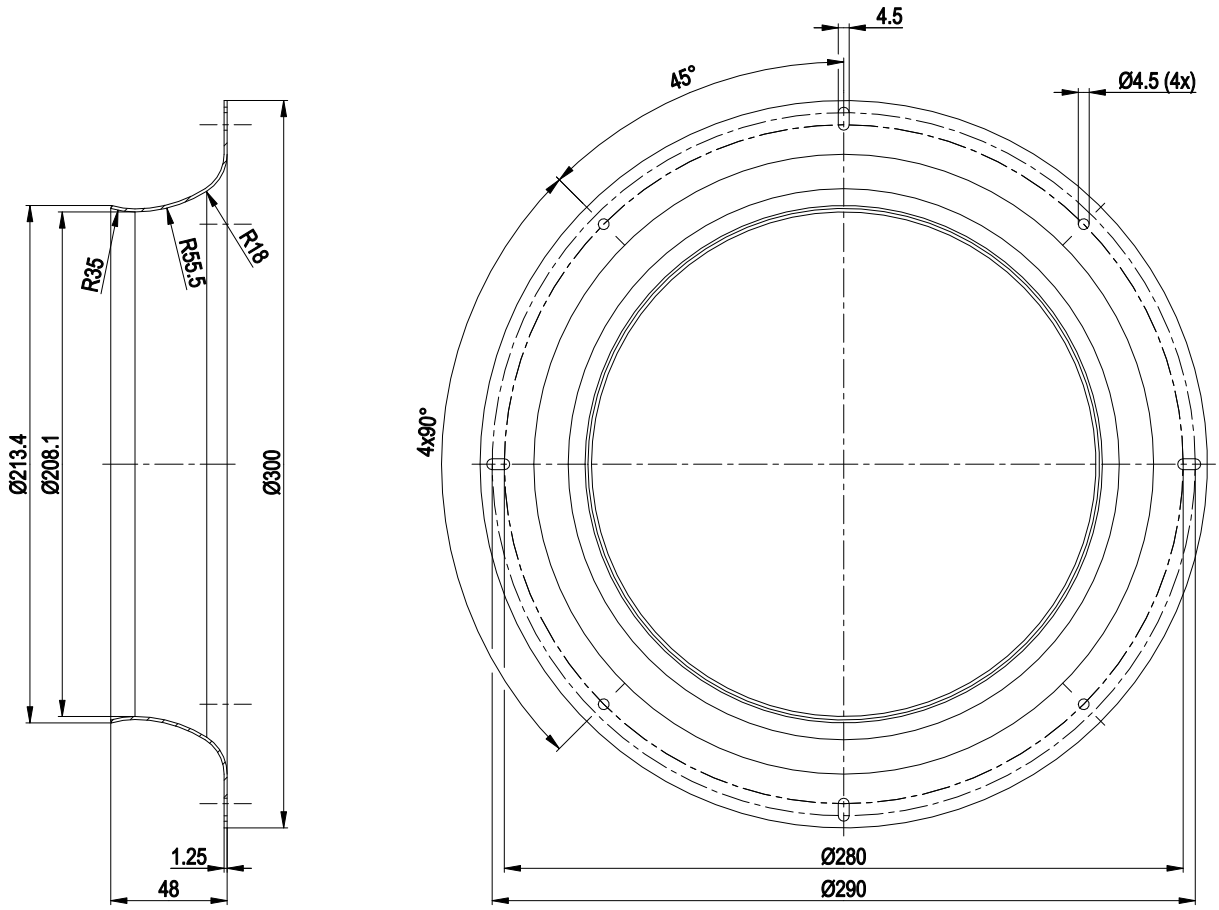
1	Accessory part: inlet ring 31050-2-4013 not included in scope of delivery
2	Clearance for screw 8-10 mm
3	Tapping hole prepared for self-tapping M4 screw, max. clearance for screw 6 mm
4	Tapping hole prepared for self-tapping M4 screw, max. clearance for screw 8 mm
5	Cable PVC AWG18
	3x wire-end ferrule
6	Cable PVC AWG22
	4x wire-end ferrule

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Accessory part



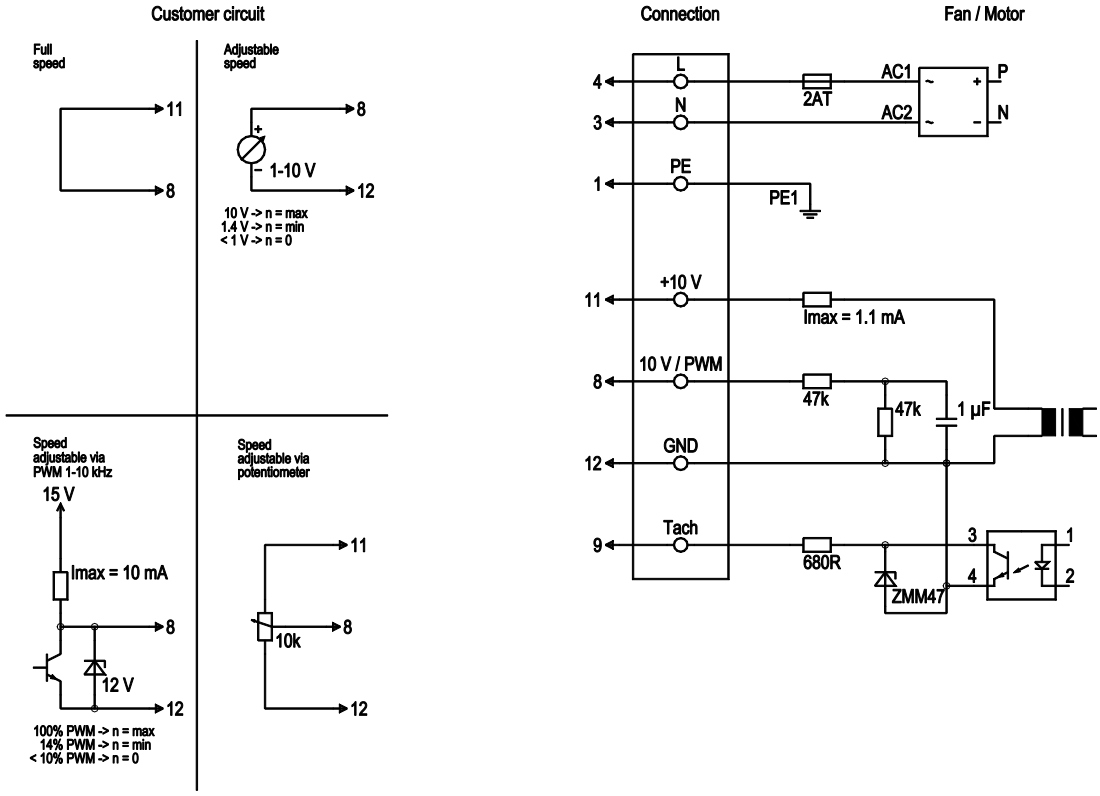
inlet ring 31050-2-4013 not included in scope of delivery

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Connection diagram



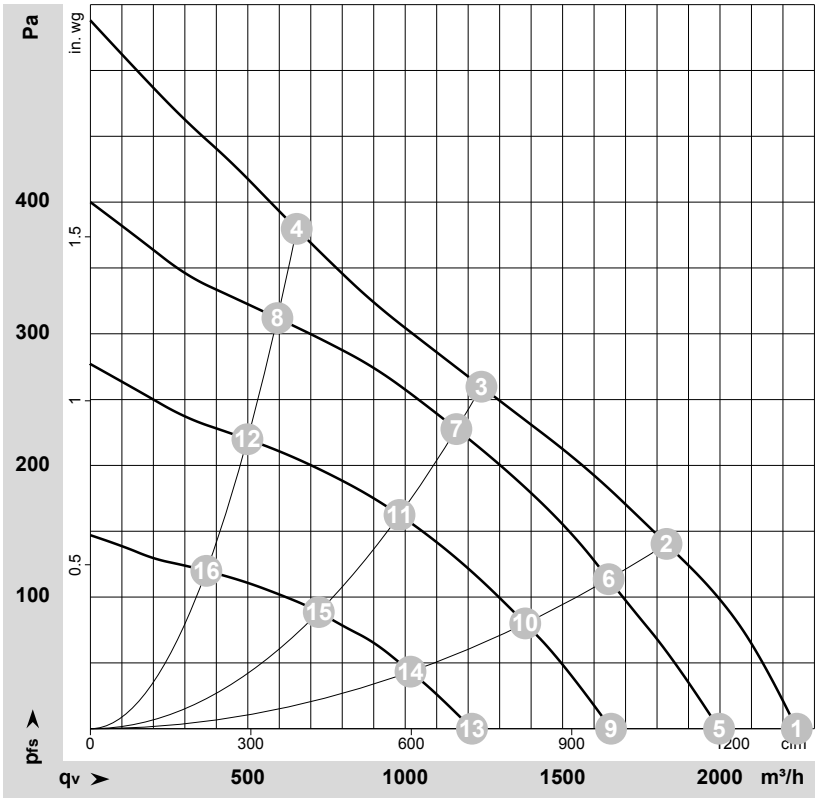
No.	Conn.	Designation	Color	Function/assignment
	4	L	black	Power supply 230 VAC, 50-60 Hz, see nameplate for voltage range
	3	N	blue	Neutral conductor
	1	PE	green/yellow	Protective earth
	8	0-10 V PWM	yellow	Control input 0-10 V or PWM, electrically isolated
	9	Tach	white	Tach output: open collector, 1 pulse per revolution, electrically isolated
	11	10V / max 1.1 mA	red	Voltage output 10 V/max. 1.1 mA, electrically isolated
	12	GND	blue	GND connection for control interface

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Curves: Air performance 50 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-69203-1
Measurement: LU-67778-1
Measurement: LU-67779-1
Measurement: LU-67780-1

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	q_V	p_{fs}	q_V	p_{fs}
		V	Hz	min^{-1}	W	A	m^3/h	Pa	cfm	in. wg
1	1~	230	50	1925	150	1.10	2245	0	1320	0.00
2	1~	230	50	1810	174	1.29	1830	140	1075	0.56
3	1~	230	50	1705	173	1.28	1240	260	730	1.04
4	1~	230	50	1805	173	1.27	655	380	385	1.53
5	1~	230	50	1670	100	0.75	1995	0	1175	0.00
6	1~	230	50	1610	131	0.96	1645	114	970	0.46
7	1~	230	50	1585	139	1.00	1165	228	685	0.92
8	1~	230	50	1615	133	0.98	595	312	350	1.25
9	1~	230	50	1395	60	0.47	1655	0	975	0.00
10	1~	230	50	1350	78	0.59	1380	80	815	0.32
11	1~	230	50	1340	85	0.64	980	162	580	0.65
12	1~	230	50	1355	81	0.60	500	220	295	0.88
13	1~	230	50	1025	28	0.23	1210	0	715	0.00
14	1~	230	50	1005	36	0.28	1015	43	600	0.17
15	1~	230	50	990	40	0.31	725	89	425	0.36
16	1~	230	50	1005	37	0.29	370	120	215	0.48

Wired = Wiring · U = Power supply · f = Frequency · n = Speed (rpm) · P_{ed} = Power consumption · I = Current draw · q_V = Air flow · p_{fs} = Pressure increase

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