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General partner Elektrobau Mulfingen GmbH · Headquarters Mulfingen

Amtsgericht (court of registration) Stuttgart · HRB 590142

Nominal data

Type	R3G250-AH52-01	
Motor	M3G074-CF	
Phase		1~
Nominal voltage	VAC	230
Nominal voltage range	VAC	200 .. 277
Frequency	Hz	50/60
Method of obtaining data		ml
Speed (rpm)	min ⁻¹	2600
Power consumption	W	160
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

		Actual	Req. 2015
01 Overall efficiency η_{es}	%	47.1	43.1
02 Measurement category		A	
03 Efficiency category		Static	
04 Efficiency grade N		66	62
05 Variable speed drive		Yes	

Data obtained at optimum efficiency level.

The ErP data is determined using a motor-impeller combination in a standardized measurement setup.

09 Power consumption P_{ed}	kW	0.16
09 Air flow q_v	m ³ /h	690
09 Pressure increase p_{fs}	Pa	350
10 Speed (rpm) n	min ⁻¹	2595
11 Specific ratio*		1.00

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

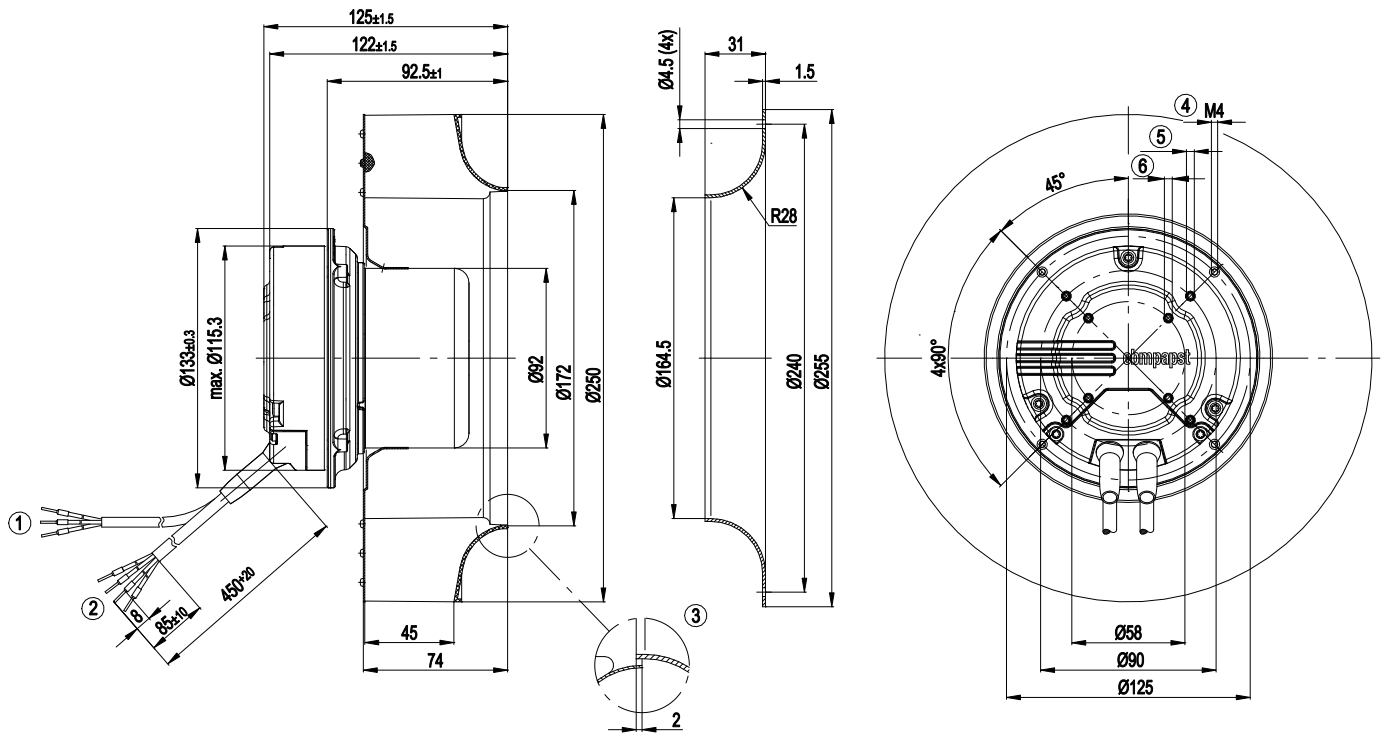
LU-74719



Technical description

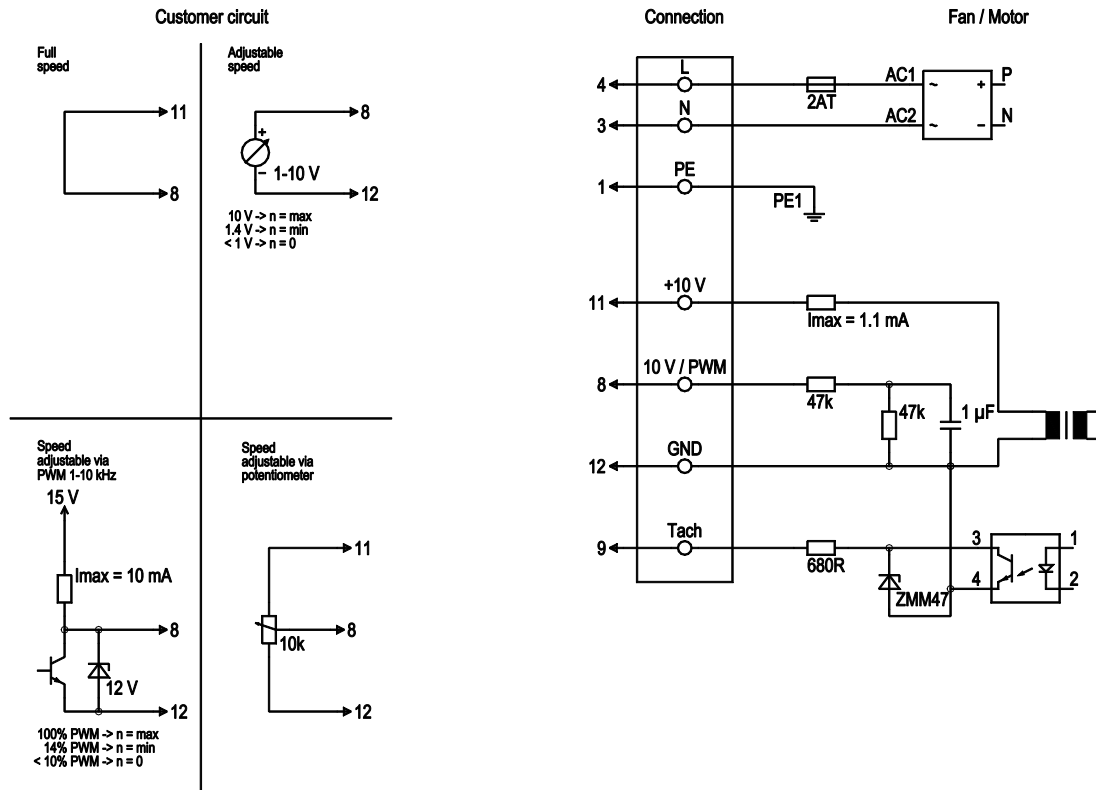
Weight	2.4 kg
Fan size	250 mm
Rotor surface	Thick-film passivated
Electronics housing material	Die-cast aluminum
Impeller material	PA66 plastic, glass-fiber reinforced
Number of blades	11
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	IP44; installation- and position-dependent
Insulation class	"B"
Moisture (F) / Environmental (H) protection class	F3-1
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 top; rotor on bottom on request
Condensation drainage holes	None
Mode	S1
Motor bearing	Ball bearing
Technical features	- Output 10 VDC, max. 1.1 mA - Tach output - Motor current limitation - Soft start - Control input 0-10 VDC / PWM - Thermal overload protection for electronics/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; EN 60950-1; EN 61800-5-1; CE
Approval	CCC; EAC; UL1004-3 +60730; C22.2 No.77 + CAN/CSA-E60730-1

Product drawing



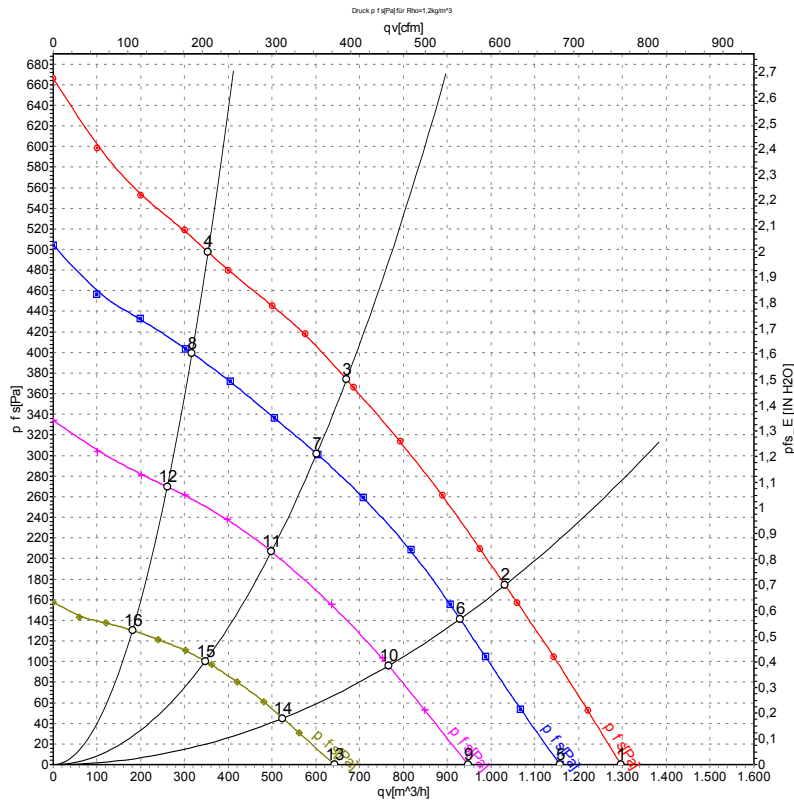
1	Cable AWG18, 3x crimped ferrules
2	Cable AWG22, 4x crimped ferrules
3	Accessory part: inlet ring 96359-2-4013 not included in scope of delivery, other inlet rings on request
4	Clearance for screw 8-10 mm, tightening torque 2.5 ± 0.2 Nm; gluing the screws is recommended
5	Tapping hole ready for self-tapping M4 screw, max. clearance for screw 6 mm
6	Tapping hole ready for self-tapping M4 screw, max. clearance for screw 8 mm

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

Curves: Air performance 50 Hz



Measurement: LU-74719-1
 Measurement: LU-67431-1
 Measurement: LU-67432-1
 Measurement: LU-67433-1

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

	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	inH ₂ O
1	230	50	2770	123	0.90	1295	0	765	0.00
2	230	50	2660	148	1.08	1030	175	605	0.70
3	230	50	2600	160	1.20	670	375	395	1.51
4	230	50	2680	147	1.08	355	500	210	2.01
5	230	50	2455	88	0.66	1155	0	680	0.00
6	230	50	2380	106	0.81	930	141	545	0.57
7	230	50	2335	116	0.87	600	302	355	1.21
8	230	50	2400	105	0.79	315	399	185	1.60
9	230	50	2000	53	0.40	945	0	555	0.00
10	230	50	1960	62	0.47	765	96	450	0.39
11	230	50	1935	69	0.51	500	208	295	0.84
12	230	50	1965	61	0.46	260	270	155	1.08
13	230	50	1380	22	0.17	640	0	380	0.00
14	230	50	1365	25	0.20	525	45	310	0.18
15	230	50	1350	28	0.22	345	100	205	0.40
16	230	50	1360	25	0.19	180	130	105	0.52

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