EC centrifugal fan

backward-curved

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	**R3G190-AB07-17**
Motor	**M3G055-CF**

Phase		1~
Nominal voltage	VAC	230
Frequency	Hz	50/60
Method of obtaining data		fa
Speed (rpm)	min^{-1}	3320
Power consumption	W	71
Current draw	A	0.5
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

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Technical description

Weight	1.2 kg
Fan size	190 mm
Rotor surface	Galvanized
Electronics housing material	Die-cast aluminum
Impeller material	PA66 plastic, glass-fiber reinforced
Number of blades	7
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	IP44
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 bottom; rotor on top on request
Condensation drainage holes	On rotor side
Mode	S1
Motor bearing	Ball bearing
Technical features	- Control input 0-10 VDC / PWM - Output 10 VDC, max. 1.1 mA - Tach output - Thermal overload protection for motor - Motor current limitation - Soft start
EMC immunity to interference	According to EN 61000-6-2
EMC circuit feedback	According to EN 61000-3-2/3
EMC interference emission	According to EN 61000-6-3 (household 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

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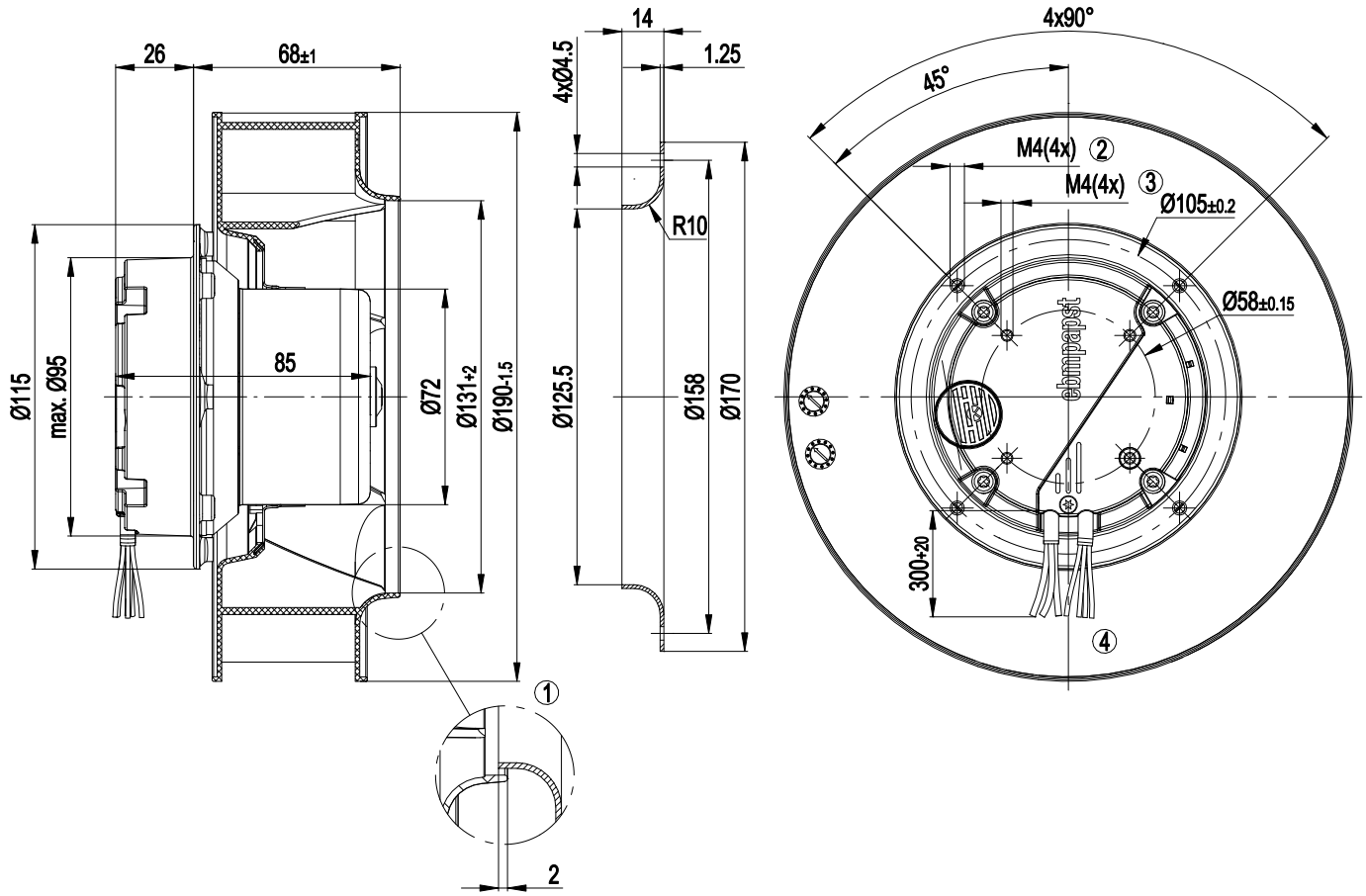
Product drawing



1	Accessory part: inlet ring 09576-2-4013 not included in scope of delivery
2	Max. clearance for screw 6 mm
3	Max. clearance for screw 6 mm
4	Cable, 7x receptacle crimped

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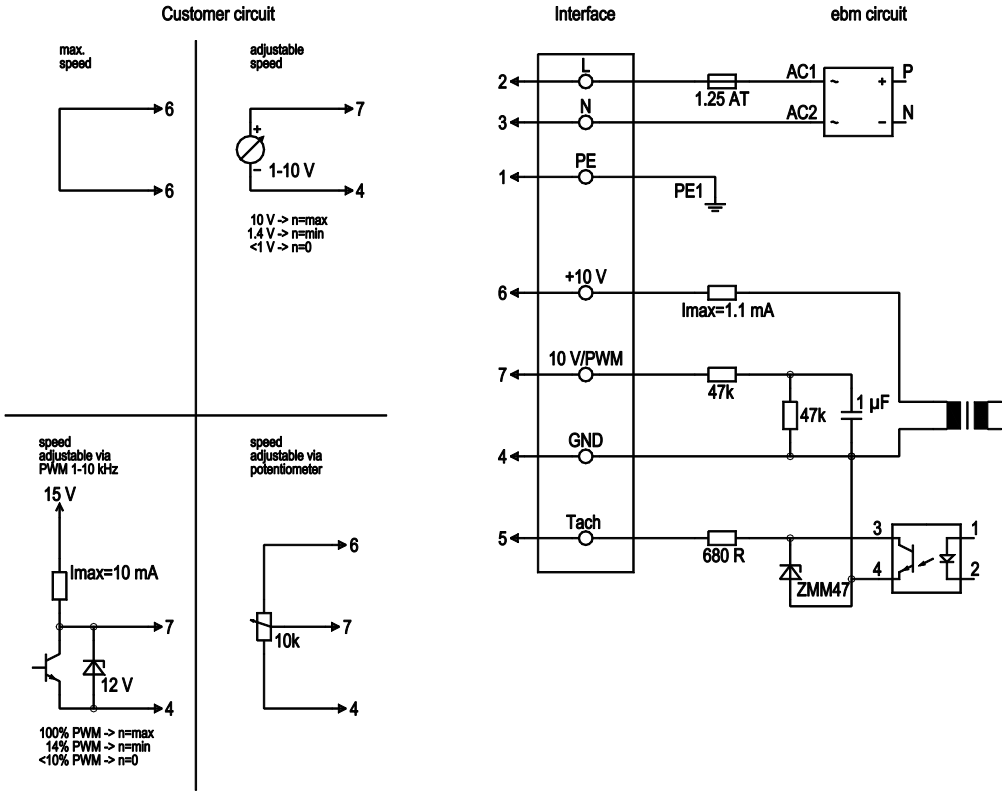
Connection diagram



No.	Conn.	Designation	Color	Function/assignment
	2	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
	7	0-10 V PWM	yellow	Control input 0-10 V or PWM, electrically isolated
	5	Tach	white	Tach output: open collector, 1 pulse per revolution, electrically isolated
	6	10 V	red	Voltage output 10 V/1.1 mA, electrically isolated
	4	GND	blue	GND connection for control interface

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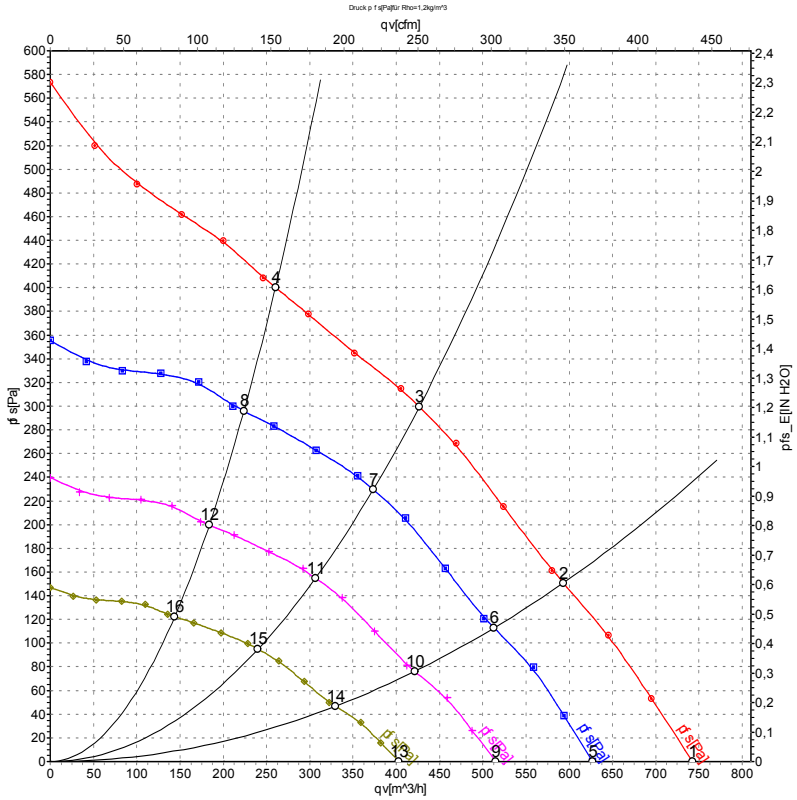
Curves: Air performance 50 Hz



Measurement: LU-108720-1

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	LpA_{in}	LwA_{in}	qv	p_{fs}	qv	p_{fs}
	V	Hz	min^{-1}	W	A	dB(A)	dB(A)	m^3/h	Pa	CFM	inH2O
1	230	50	3320	71	0.50	69	76	745	0	435	0.00
2	230	50	3240	78	0.58	64	73	595	150	350	0.60
3	230	50	3200	81	0.61	60	69	425	300	250	1.20
4	230	50	3255	77	0.57	62	71	260	400	155	1.61
5	230	50	2800	42	0.32	65	73	625	0	370	0.00
6	230	50	2800	50	0.37	61	70	515	112	300	0.45
7	230	50	2800	54	0.41	57	66	375	230	220	0.92
8	230	50	2800	49	0.37	59	68	225	296	130	1.19
9	230	50	2300	23	0.18	61	69	515	0	305	0.00
10	230	50	2300	28	0.21	57	66	420	76	250	0.31
11	230	50	2300	30	0.23	53	62	305	155	180	0.62
12	230	50	2300	27	0.20	55	64	185	200	110	0.80
13	230	50	1800	11	0.08	56	63	405	0	235	0.00
14	230	50	1800	13	0.10	51	60	330	46	195	0.18
15	230	50	1800	14	0.11	48	57	240	95	140	0.38
16	230	50	1800	13	0.10	49	58	145	122	85	0.49

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
qv = Air flow · p_{fs} = Pressure increase