EC centrifugal fan

forward-curved, single-intake

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	**R3G180-AU73-01**
Motor	**M3G074-CF**

Phase		1~
Nominal voltage	VAC	115
Nominal voltage range	VAC	100 .. 130
Frequency	Hz	50/60
Method of obtaining data		ml
Status		prelim.
Speed (rpm)	min^{-1}	1320
Power consumption	W	175
Current draw	A	2.2
Min. back pressure	Pa	0
Min. back pressure	in. wg	0
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	2.5 kg
Size	180 mm
Motor size	74
Rotor surface	Painted black
Impeller material	Sheet steel, galvanized
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	IP44
Insulation class	"B"
Moisture (F) / Environmental (H) protection class	F3-1; 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 top
Condensation drainage holes	None
Mode	S1
Motor bearing	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
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
Approval	UL 1004-3 + 60730-1; CSA C22.2 No. 77 + CAN/CSA-E60730-1

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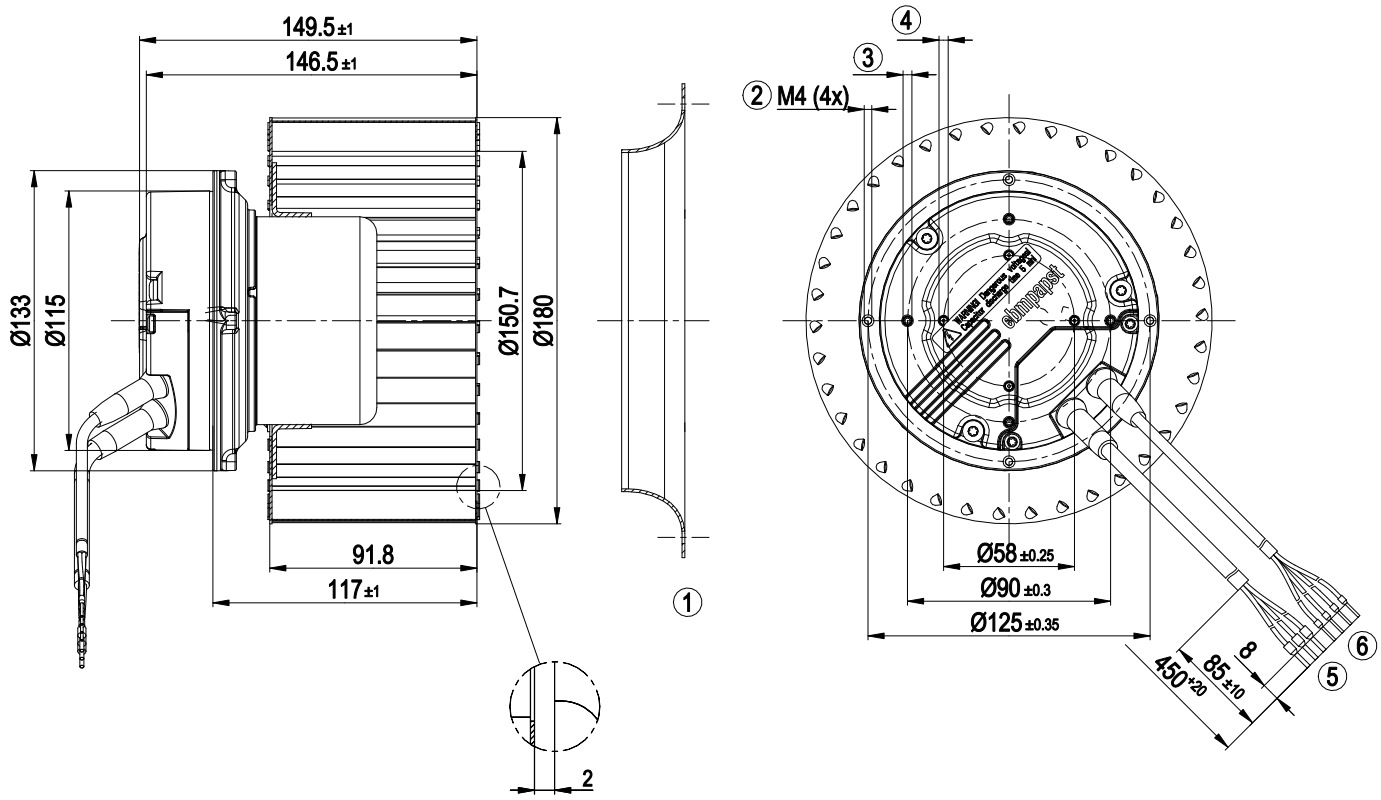
Product drawing



1	Accessory part: inlet ring 09597-2-4013 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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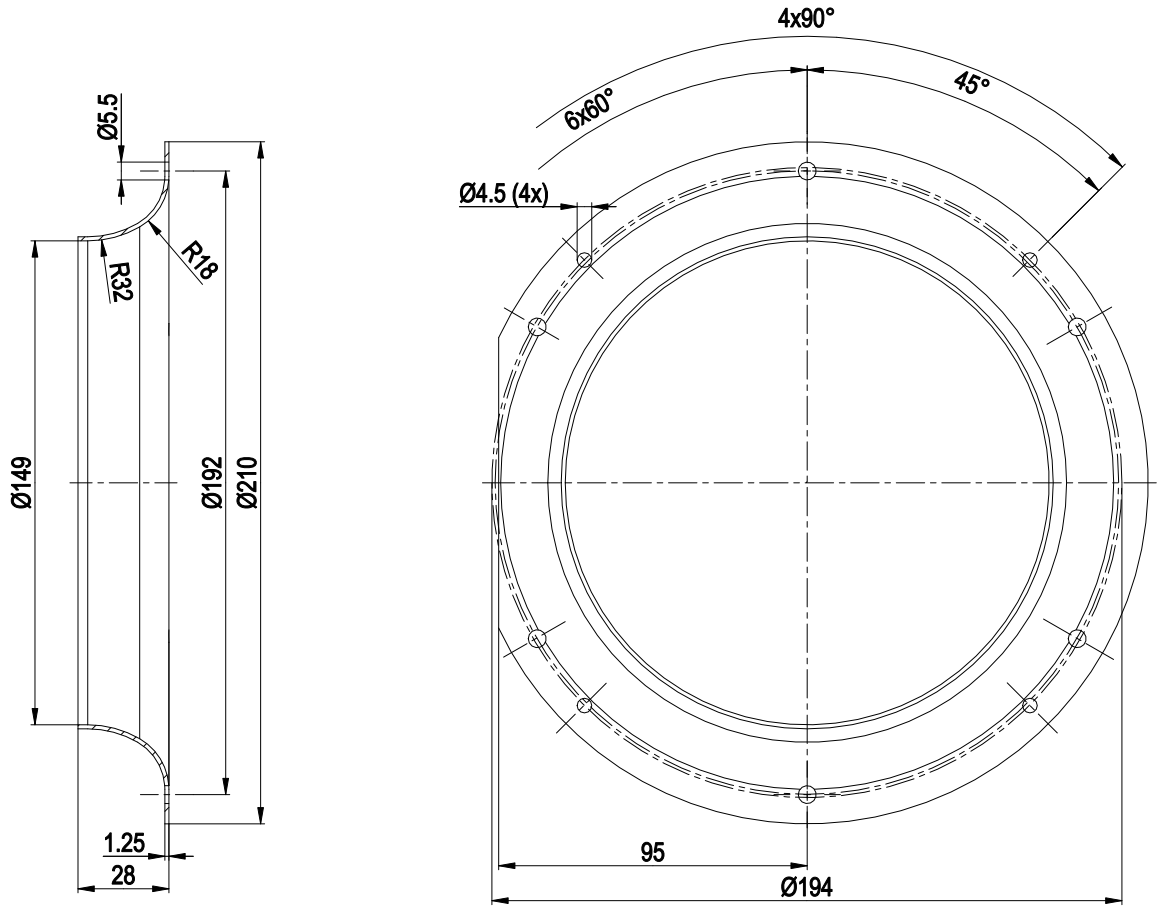
Accessory part



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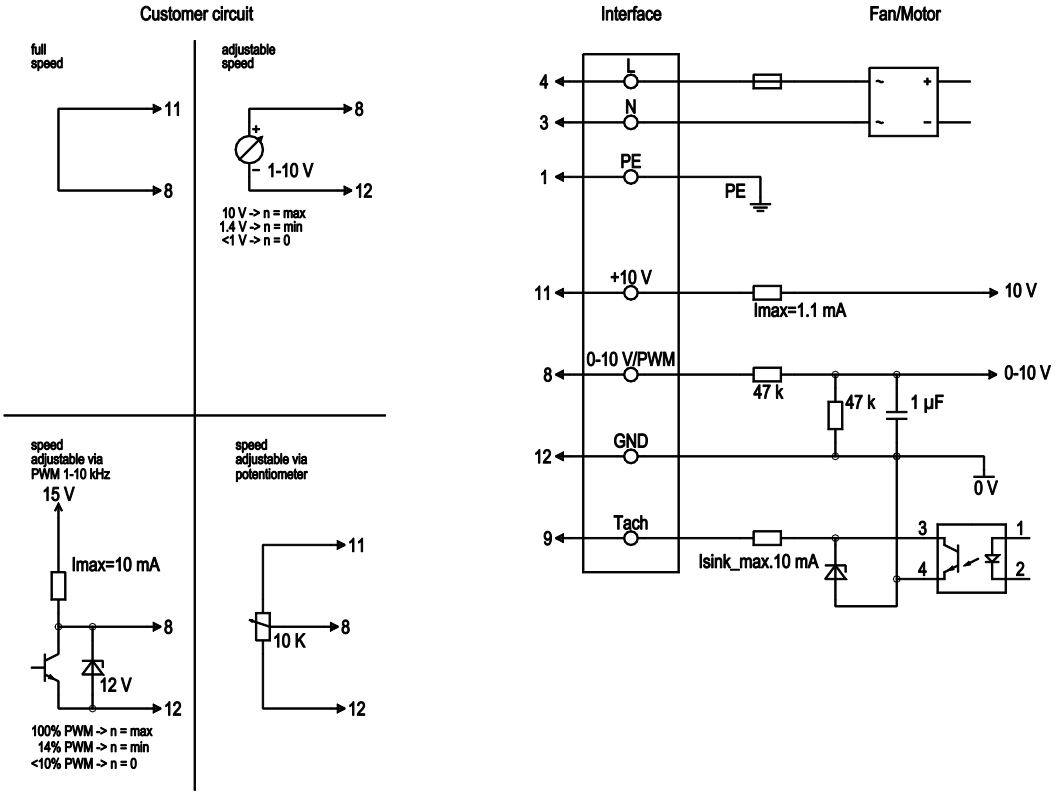
Connection diagram



No.	Conn.	Designation	Color	Function/assignment
	4	L	black	Supply connection, power supply, phase, voltage range see nameplate, 50/60 Hz
	3	N	blue	Supply connection, power supply, neutral conductor, voltage range see nameplate, 50/60 Hz
	1	PE	green/yellow	Ground connection
	8	0-10 V / PWM	yellow	0-10 V / PWM control input, Ri=100 kΩ, SELV
	9	Tacho	white	Tach output, open collector, 1 pulse per revolution, Isink max = 10 mA, SELV
	11	+10 V	red	Fixed voltage output 10 VDC +/-3 %, Imax.= 1.1 mA, short-circuit-proof, power supply for ext. devices (e.g. potentiometers), SELV
	12	GND	blue	Reference ground for control interface, SELV

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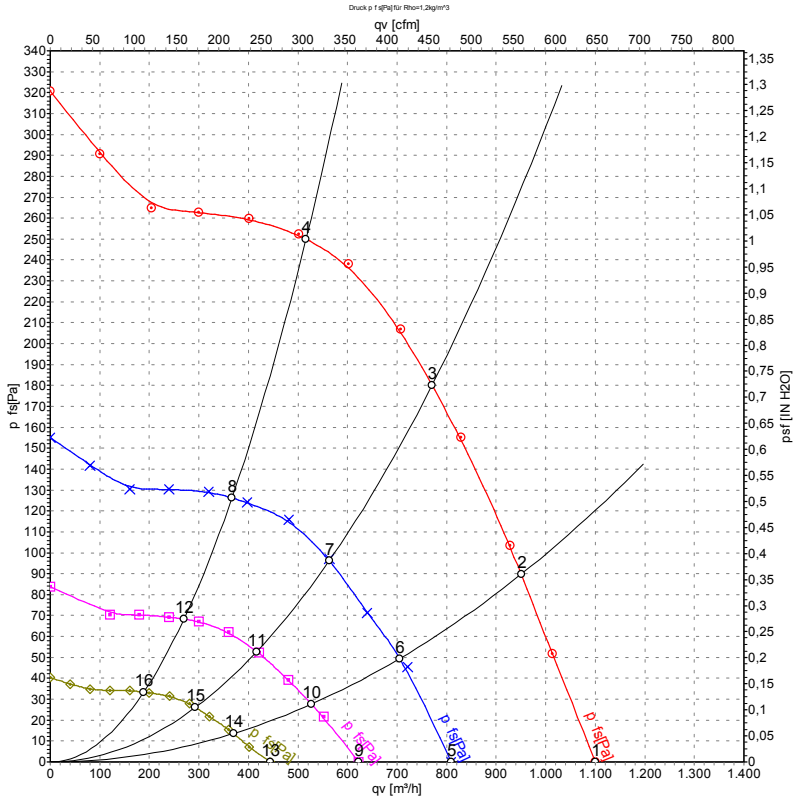
Curves: Air performance 50 Hz



Measurement: LU-75044-1
Measurement: LU-76128-1
Measurement: LU-76129-1
Measurement: LU-76130-1

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	in. wg
1	115	50	1320	175	2.20	1100	0	650	0.00
2	115	50	1390	145	1.84	950	90	560	0.36
3	115	50	1450	120	1.56	770	180	455	0.72
4	115	50	1535	87	1.15	515	250	305	1.00
5	115	50	990	69	0.94	810	0	475	0.00
6	115	50	1040	63	0.86	705	51	415	0.20
7	115	50	1070	50	0.70	565	97	330	0.39
8	115	50	1115	35	0.51	365	126	215	0.51
9	115	50	765	35	0.50	620	0	365	0.00
10	115	50	790	29	0.43	525	28	310	0.11
11	115	50	805	24	0.37	415	53	245	0.21
12	115	50	825	17	0.27	270	68	160	0.27
13	115	50	555	16	0.25	445	0	260	0.00
14	115	50	565	13	0.21	370	14	220	0.06
15	115	50	575	11	0.19	295	26	170	0.10
16	115	50	585	8.8	0.15	190	33	110	0.13

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