

R3G160-AC50-01

EC centrifugal fan

forward-curved, single-intake

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Amtsgericht (court of registration) Stuttgart · HRB 590142

Nominal data

Type	R3G160-AC50-01	
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	2150
Power consumption	W	170
Current draw	A	1.25
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	60

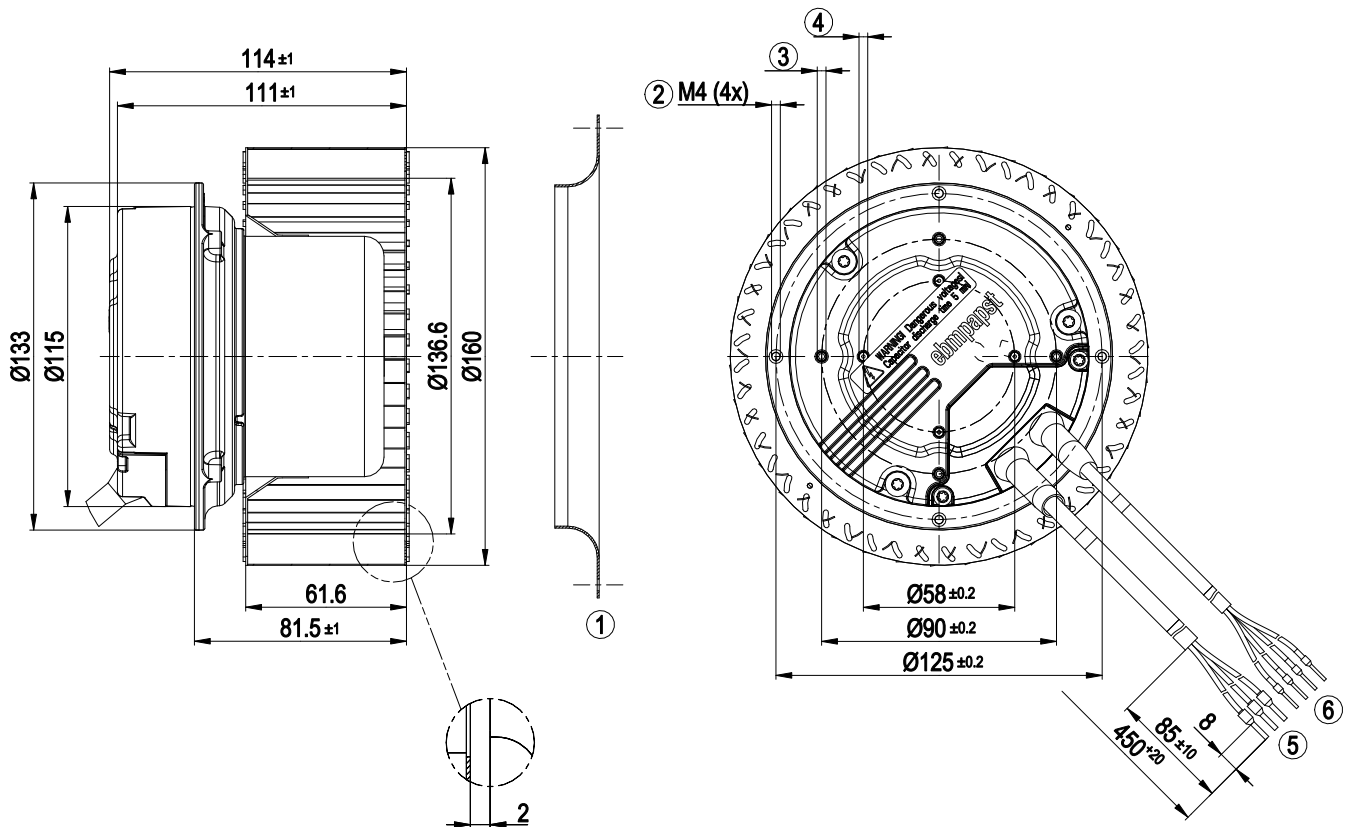
ml = Max. load · me = Max. efficiency · fa = Free air · cs = Customer specification · ce = Customer equipment
Subject to change



Technical description

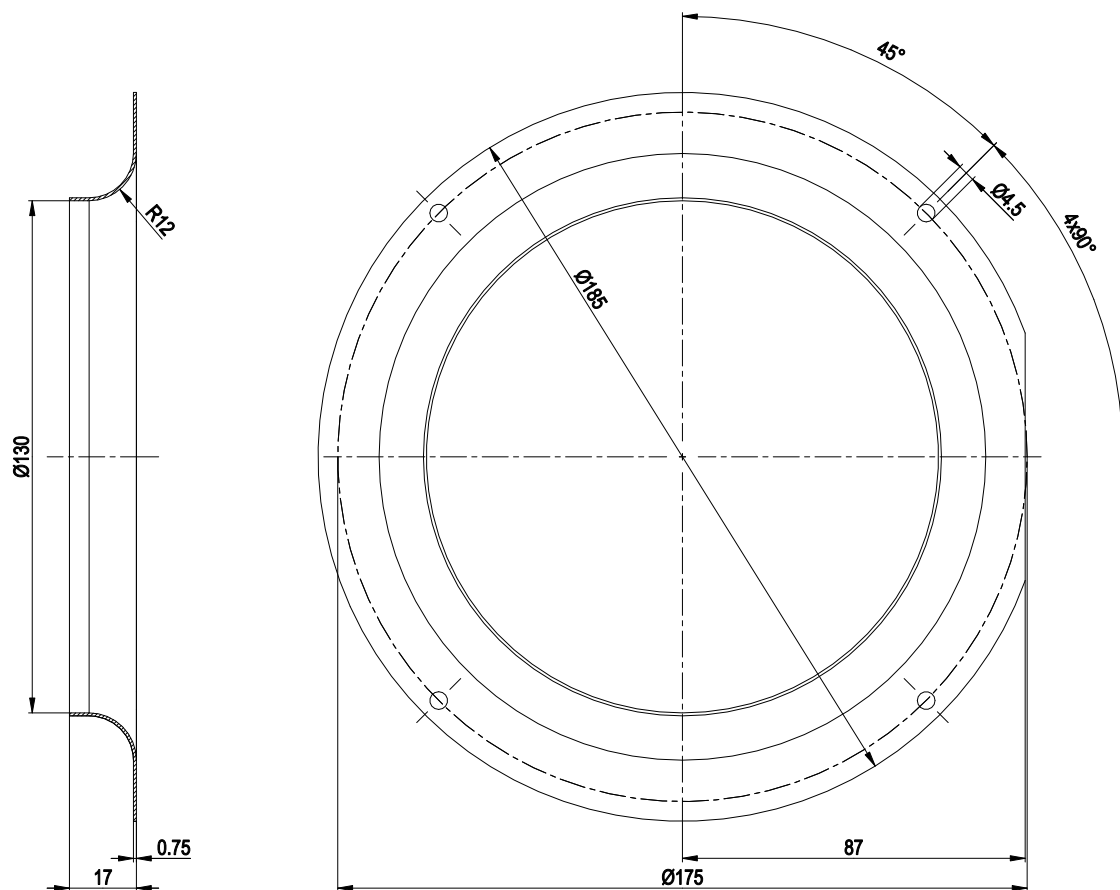
Weight	2.0 kg
Size	160 mm
Motor size	74
Rotor surface	Thick-film passivated (electroplated with nickel)
Impeller material	Sheet steel, galvanized
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	IP44; installation- and position-dependent
Insulation class	"B"
Moisture (F) / Environmental (H) protection class	F3-1; 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	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; CE
Approval	UL 1004-7 + 60730-1; CCC; CSA C22.2 No. 77 + CAN/CSA-E60730-1

Product drawing



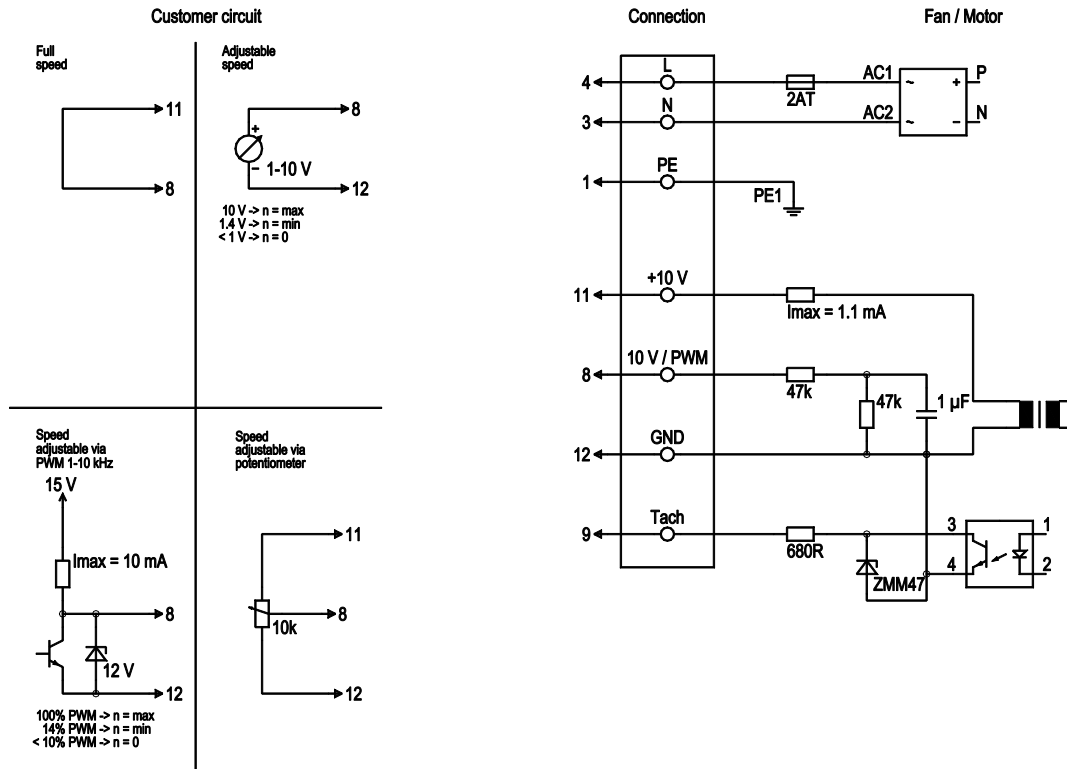
1	Accessory part: inlet ring 09588-2-4013 not included in scope of delivery
2	Tapping hole prepared for self-tapping M4 thread, max. screw-in depth 8 mm
3	Tapping hole prepared for self-tapping M4 thread, max. screw-in depth 6 mm
4	Screw-in depth 8-10 mm; tightening torque 2.5 ± 0.2 Nm; gluing the screws is recommended
5	Cable PVC AWG18 3x wire-end ferrule
6	Cable PVC AWG22 4x wire-end ferrule

Accessory part



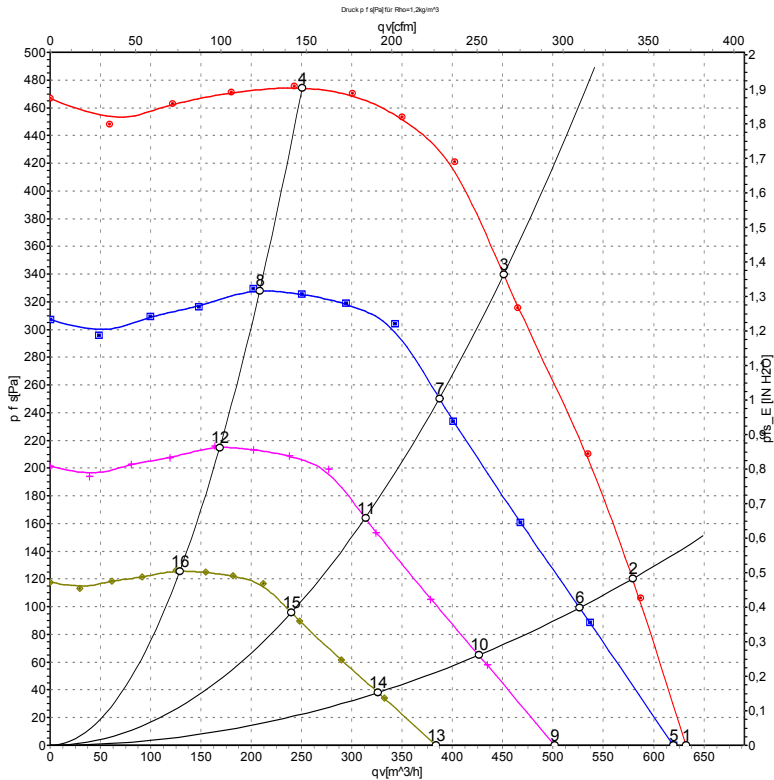
Accessory part: inlet ring 09588-2-4013 not included in scope of delivery

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-69200-1

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 _{ts}	q _v	p _{ts}
	V	Hz	min ⁻¹	W	A	m³/h	Pa	cfm	in. wg
1	230	50	2150	170	1.25	630	0	370	0.00
2	230	50	2310	170	1.25	580	120	340	0.48
3	230	50	2445	142	1.07	450	340	265	1.36
4	230	50	2525	97	0.74	250	475	145	1.91
5	230	50	2100	162	1.19	620	0	365	0.00
6	230	50	2100	129	0.96	525	100	310	0.40
7	230	50	2100	90	0.68	385	250	230	1.00
8	230	50	2100	56	0.42	210	329	120	1.32
9	230	50	1700	86	0.63	500	0	295	0.00
10	230	50	1700	69	0.51	425	65	250	0.26
11	230	50	1700	48	0.36	315	164	185	0.66
12	230	50	1700	30	0.23	170	216	100	0.87
13	230	50	1300	38	0.28	385	0	225	0.00
14	230	50	1300	31	0.23	325	38	190	0.15
15	230	50	1300	21	0.16	240	96	140	0.39
16	230	50	1300	13	0.10	130	126	75	0.51

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