

R3G133-AE07-18

EC centrifugal fan

backward-curved, single-intake

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Amtsgericht (court of registration) Stuttgart · HRB 590142

Nominal data

Type	R3G133-AE07-18	
Motor	M3G055-BD	
Phase		1~
Nominal voltage	VAC	230
Nominal voltage range	VAC	200 .. 240
Frequency	Hz	50/60
Method of obtaining data		ml
Speed	min ⁻¹	4320
Power consumption	W	50
Current draw	A	0.46
Min. ambient temperature	°C	-40
Max. ambient temperature	°C	60

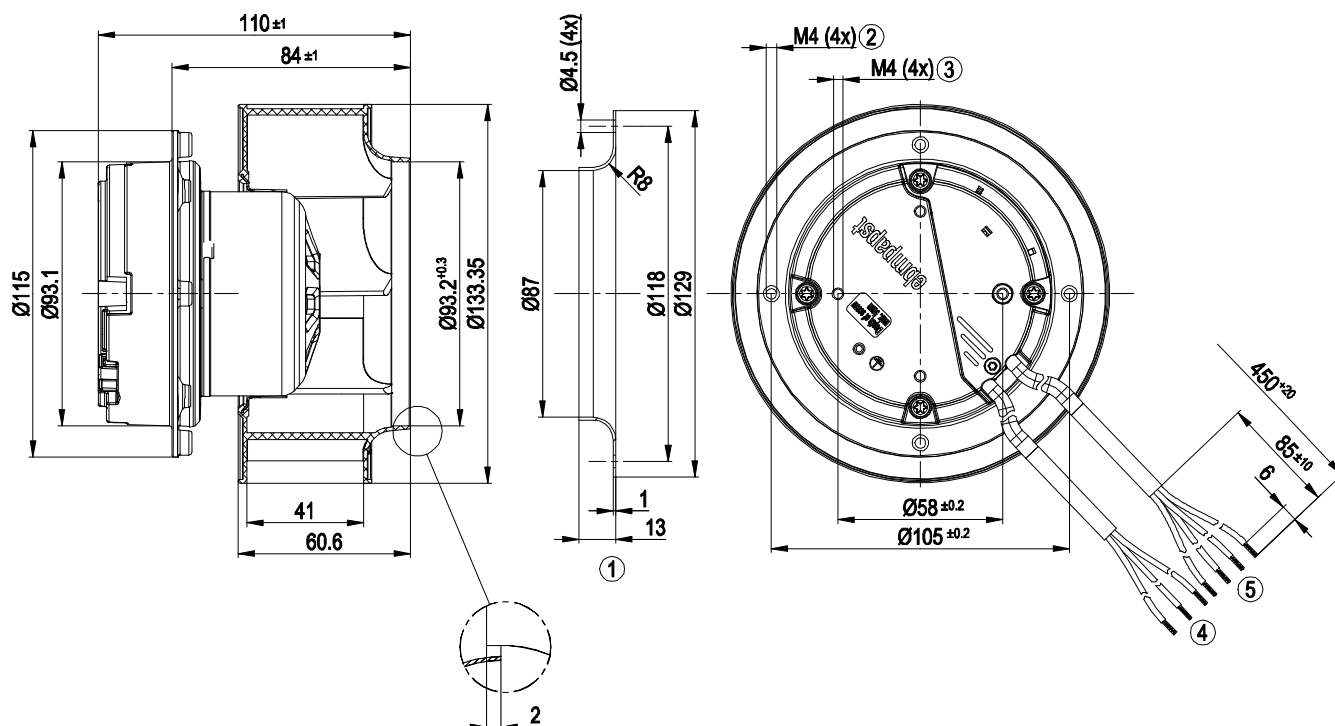
ml = Max. load · me = Max. efficiency · fa = Free air · cs = Customer specification · ce = Customer equipment
Subject to change



Technical description

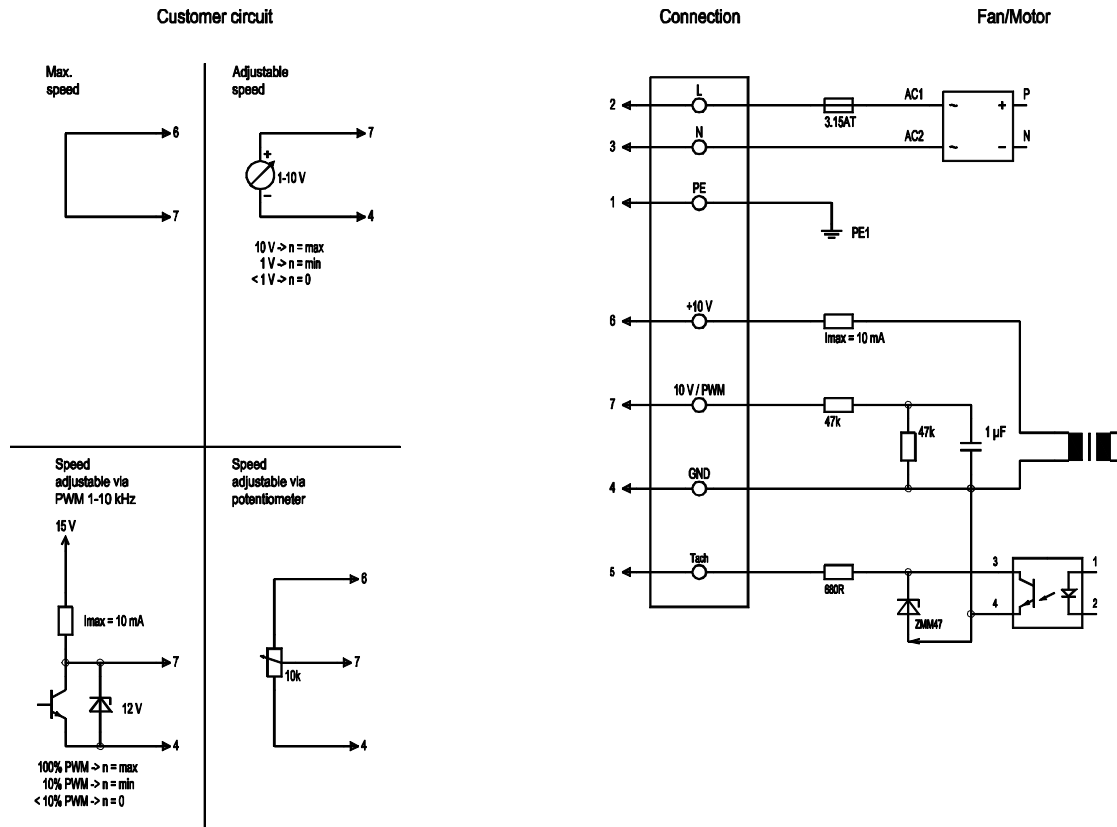
Weight	1.0 kg
Fan size	133 mm
Rotor surface	Thick-film passivated
Electronics housing material	Die-cast aluminum
Impeller material	PA plastic
Number of blades	7
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	IP54
Insulation class	"B"
Max. permitted ambient temp. for motor (transport/storage)	+ 80 °C
Min. permitted ambient temp. for motor (transport/storage)	- 40 °C
Installation position	Any
Condensation drainage holes	None, open rotor
Mode	S1
Motor bearing	Ball bearing
Technical features	- Output 10 VDC, max. 10 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 - Overvoltage detection - Thermal overload protection for electronics/motor - Line undervoltage detection
EMC immunity to interference	According to EN 61000-6-2 (industrial environment)
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	Locked-rotor protection
With cable	Variable
Protection class	I (with customer connection of protective earth)
Conformity with standards	EN 60335-1; CE
Approval	EAC

Product drawing



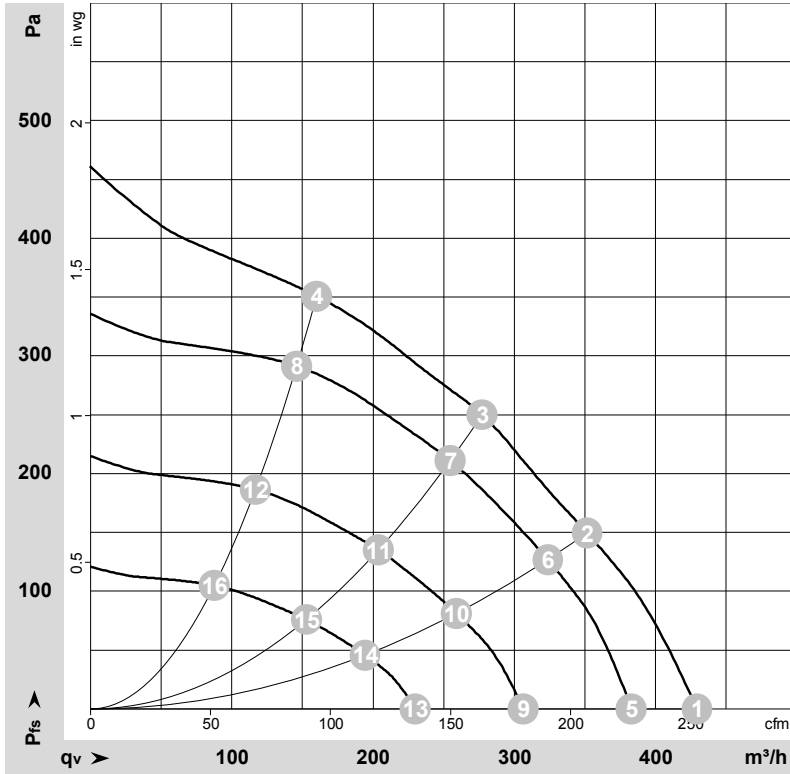
1	Accessory part: inlet ring 09566-2-4013, not included in scope of delivery
2	Max. clearance for screw 6 mm
3	Max. clearance for screw 6 mm
4	Cable PVC 3G 0.5 mm ² , 3x crimped splices
5	Cable PVC 4x 0.25 mm ² , 4x crimped splices

Connection diagram



No.	Conn.	Designation	Color	Function/assignment
2	L		brown	Power supply 230 VAC, 50-60 Hz, see nameplate for voltage range
3	N		blue	Neutral conductor
1	PE		green/yellow	Protective earth
7	0-10V PWM		yellow	Control input 0-10 V or PWM, electrically isolated
5	Tacho		white	Tach output: Open collector, 1 pulse per revolution, electrically isolated, Isink_max = 10 mA
6	10 V / max. 10 mA		red	Voltage output 10 V, 10 mA, electrically isolated
4	GND		blue	GND connection for control interface

Curves: Air performance 50 Hz



$$\rho = 1.15 \text{ kg/m}^3 \pm 2 \%$$

Measurement: LU-170319

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}
	V	Hz	min ⁻¹	W	A	dB(A)	dB(A)	m³/h	Pa
1	230	50	4485	43	0.35	77	86	430	0
2	230	50	4350	50	0.46	64	76	350	150
3	230	50	4320	50	0.46	59	67	275	250
4	230	50	4385	46	0.40	61	69	160	350
5	230	50	4000	31	0.23	74	83	385	0
6	230	50	4000	39	0.30	62	74	325	127
7	230	50	4000	37	0.29	57	65	255	212
8	230	50	4000	35	0.27	59	67	145	292
9	230	50	3200	16	0.12	69	77	305	0
10	230	50	3200	20	0.15	57	69	260	81
11	230	50	3200	19	0.15	51	59	205	136
12	230	50	3200	18	0.14	53	61	115	187
13	230	50	2400	7.0	0.05	62	70	230	0
14	230	50	2400	8.0	0.06	49	61	195	46
15	230	50	2400	8.0	0.06	44	52	155	76
16	230	50	2400	8.0	0.06	46	54	90	105

U = Power supply · f = Frequency · n = Speed · 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

