R3G133-AE07-20

EC centrifugal fan

backward curved

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Nominal data

Type	**R3G133-AE07-20**
Motor	**M3G055-BD**

Phase		1~
Nominal voltage	VAC	230
Nominal voltage range	VAC	200 .. 240
Frequency	Hz	50/60
Type of data definition		ml
Speed (rpm)	min^{-1}	4320
Power input	W	50
Current draw	A	0.46
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	60

ml = Max. load · me = Max. efficiency · fa = Running at free air · cs = Customer specs · cu = Customer unit
Subject to alterations

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Technical features

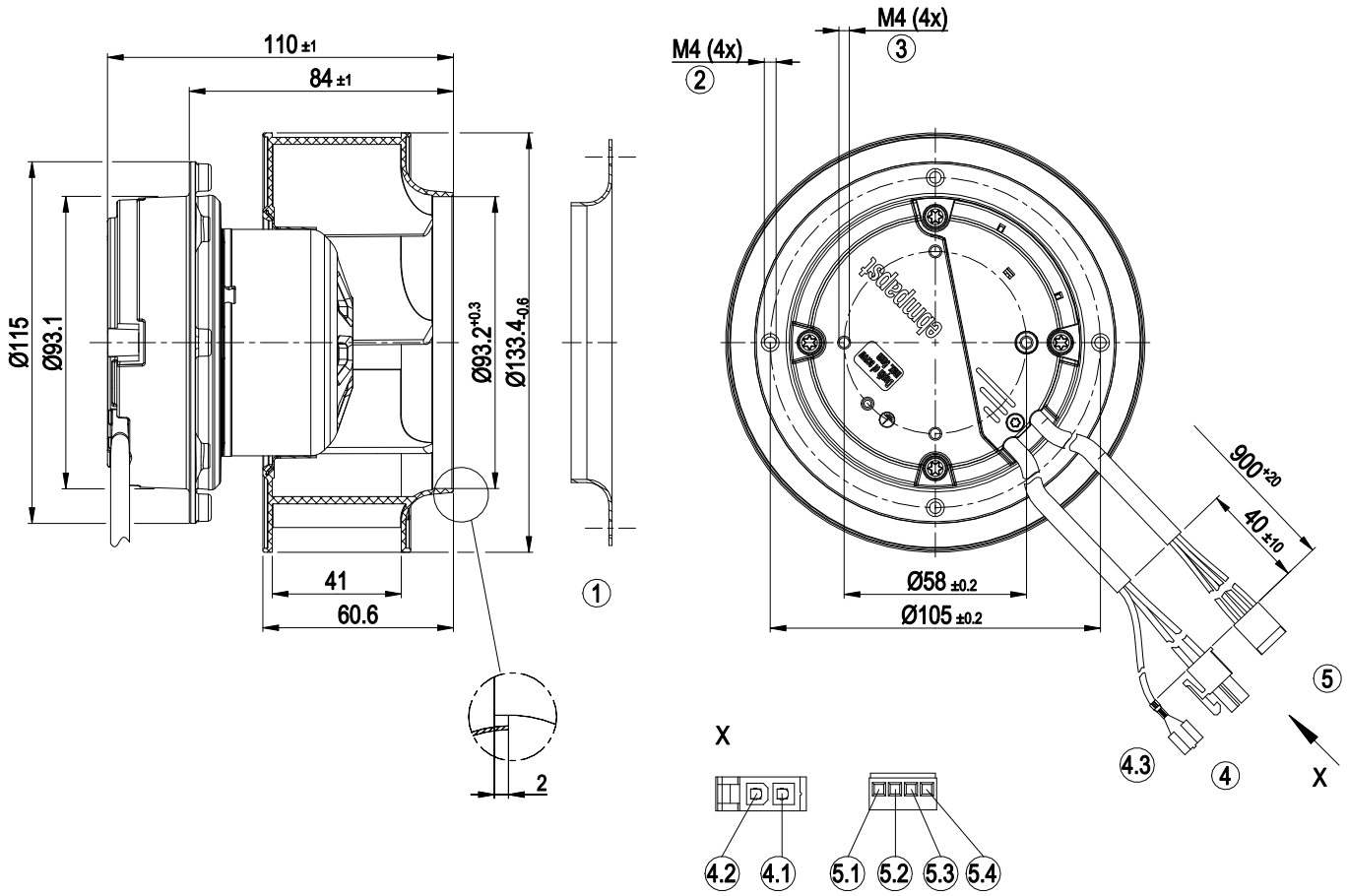
Mass	1.0 kg
Size	133 mm
Surface of rotor	Thick layer passivated
Material of electronics housing	Die-cast aluminium
Material of impeller	PA plastic
Number of blades	7
Direction of rotation	Clockwise, seen on rotor
Type of protection	IP 54
Insulation class	"B"
Max. permissible ambient motor temp. (transp./ storage)	+ 80 °C
Min. permissible ambient motor temp. (transp./storage)	- 40 °C
Mounting position	Any
Condensate discharge holes	None, open rotor
Operation mode	S1
Motor bearing	Ball bearing
Technical features	- Output 10 VDC, max. 10 mA - Tach output - Output limit - Motor current limit - Soft start - Control input 0-10 VDC / PWM - Control interface with SELV potential safely disconnected from the mains - Overvoltage detection - Over-temperature protected electronics / motor - Line undervoltage detection
EMC interference immunity	Acc. to EN 61000-6-2 (industrial environment)
EMC harmonics	Acc. to EN 61000-3-2/3
EMC interference emission	Acc. to EN 61000-6-3 (household environment)
Touch current acc. IEC 60990 (measuring network Fig. 4, TN system)	<= 3.5 mA
Motor protection	Locked-rotor protection
Cable exit	Variable
Protection class	I (if protective earth is connected by customer)
Product conforming to standard	EN 60335-1; CE

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Product drawing



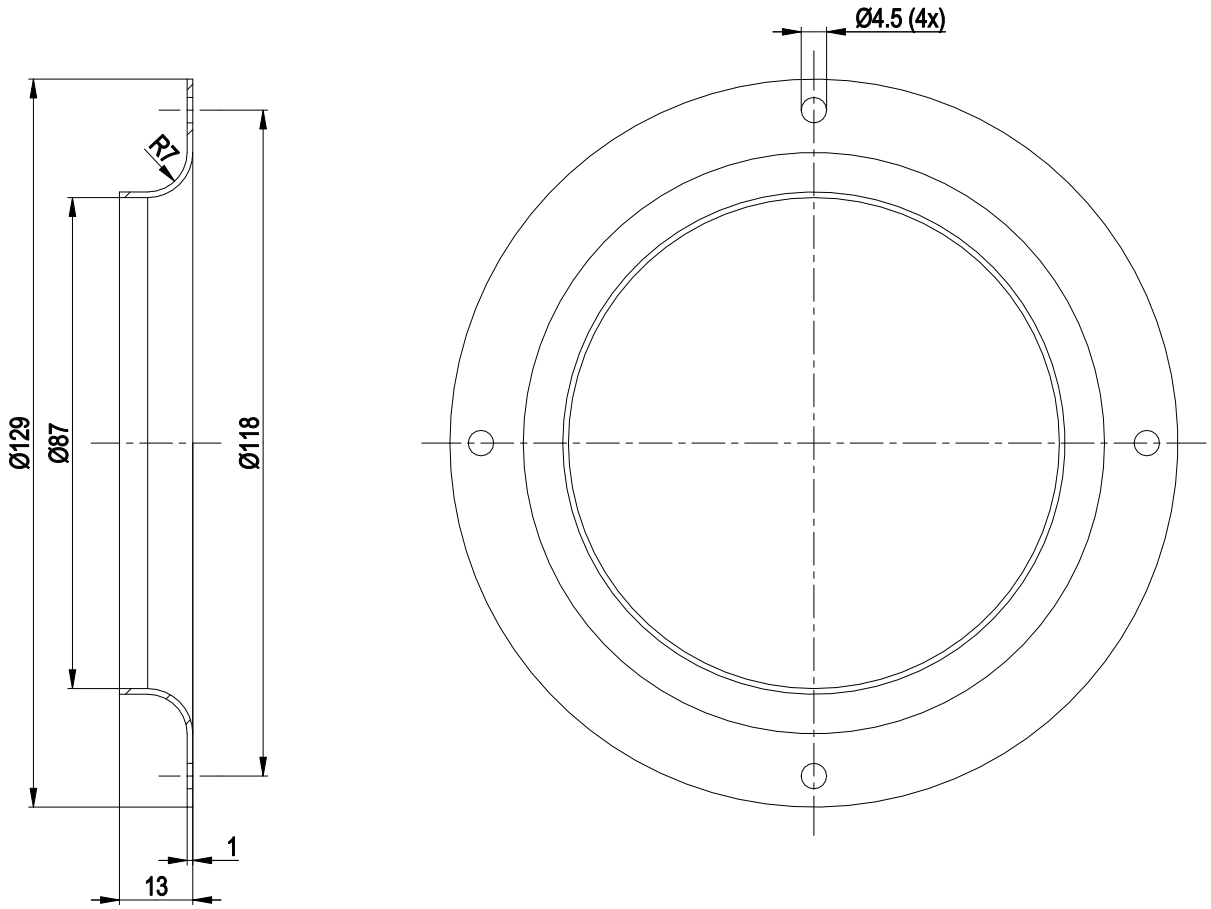
1	Accessory part: Inlet nozzle 09566-2-4013, not included in scope of delivery
2	Thread reach max. 6 mm
3	Thread reach max. 5 mm
4	Connection line PVC 3G 0.5 mm², connector housing 2-pole Molex 39-01-2025, 2x connector socket Molex 39-00-0059
4.1	L (brown)
4.2	N (blue)
4.3	PE (green/yellow), threaded pin 6.3x0.8
5	Connection line PVC 4x 0.25 mm², 4-pole connector housing Molex 10-11-2043, 4x connector socket Molex 08-50-0004
5.1	Tach (white)
5.2	0-10 V PWM (yellow)
5.3	+10 V (red)
5.4	GND (blue)

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Accessory part



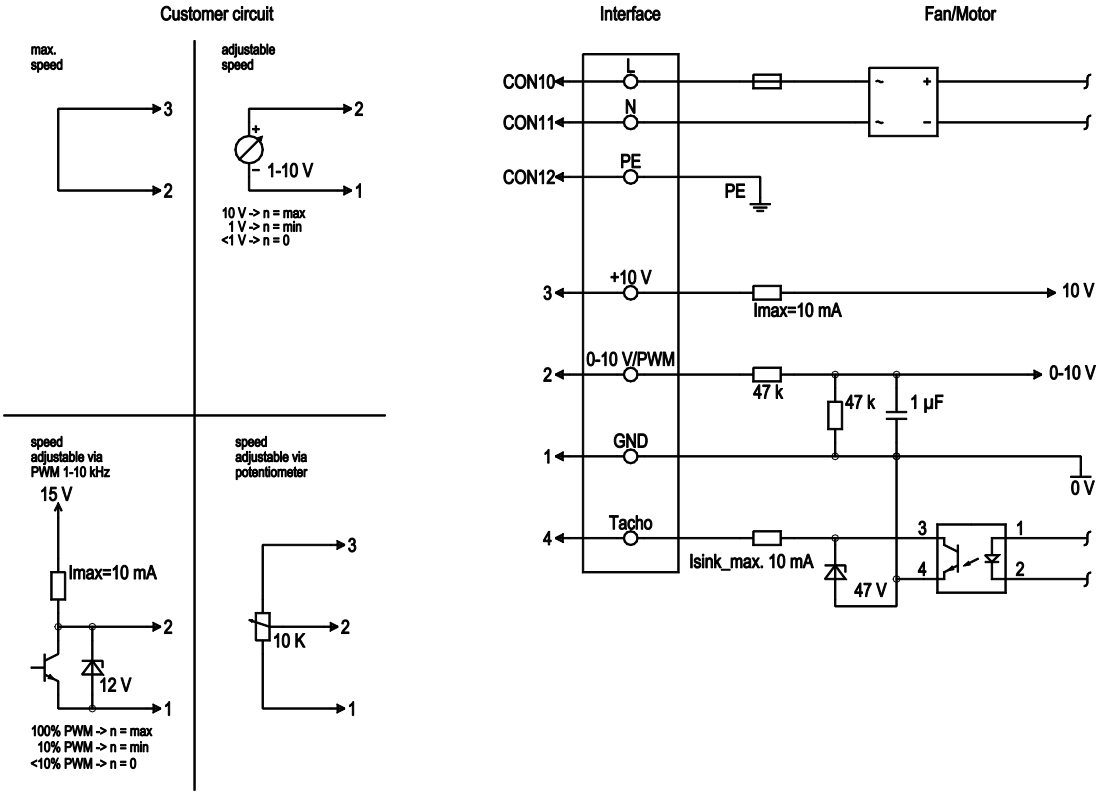
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Connection screen



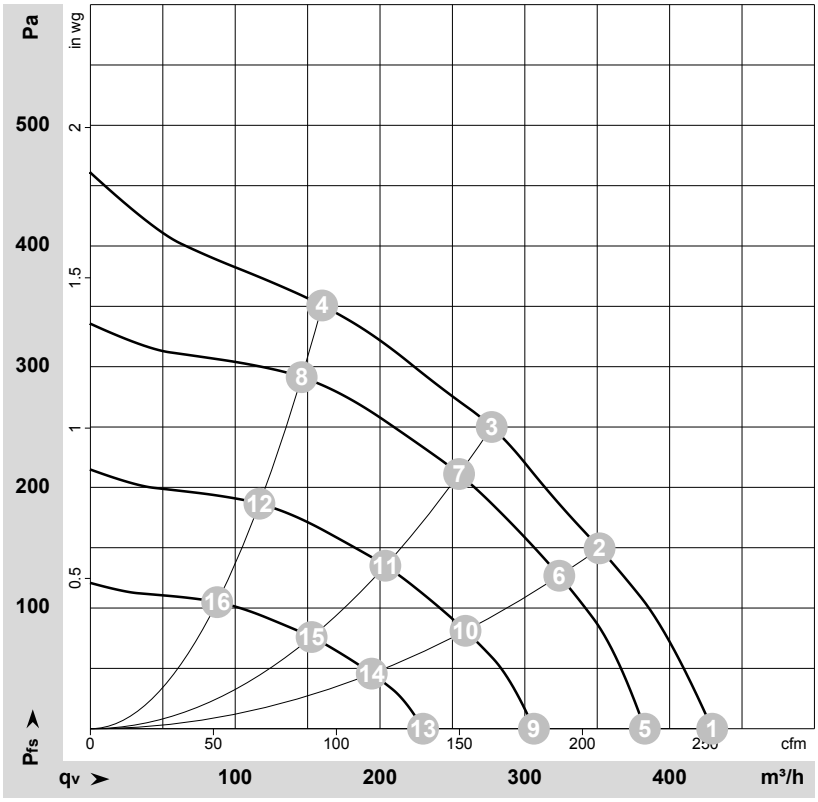
No.	Conn.	Designation	Colour	Function / assignment
	CON10	L	brown	Mains connection, power supply, phase, see type plate for voltage range
	CON11	N	blue	Mains connection, power supply, neutral conductor, see type plate for voltage range
	CON12	PE	green/yellow	Earth connection
	2	0- 10V PWM	yellow	0-10 V/PWM control input, Ri=100 kΩ, SELV
	4	Tach	white	Speed monitoring output, open collector, 1 pulse per revolution, Isink max = 10 mA, SELV
	3	+10 V	red	Fixed voltage output 10 VDC +/-3 %, Imax. 10 mA, short-circuit-proof, power supply for ext. devices (e.g. potentiometer), SELV
	1	GND	blue	Signal ground for control interface, SELV

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Charts: Air flow 50 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-170319-1

Air performance measured as per ISO 5801 Installation category A. For detailed information on the measuring set-up, please contact ebm-papst. Suction-side noise levels: LwA measured as per ISO 13347 / LpA measured with 1m distance to fan axis. The values given are valid under the measuring conditions mentioned above and may vary according to the actual installation situation. With any deviation from the standard set-up, the specific values have to be checked and reviewed with the unit installed.

Measured values

	U	f	n	P_{ed}	I	LpA_{in}	LwA_{in}	q_V	p_{fs}	q_V	p_{fs}
	V	Hz	min^{-1}	W	A	dB(A)	dB(A)	m^3/h	Pa	cfm	inH2O
1	230	50	4485	43	0.35	77	86	430	0	250	0.00
2	230	50	4350	50	0.46	64	76	350	150	205	0.60
3	230	50	4320	50	0.46	59	67	275	250	165	1.00
4	230	50	4385	46	0.40	61	69	160	350	95	1.41
5	230	50	4000	31	0.23	74	83	385	0	225	0.00
6	230	50	4000	39	0.30	62	74	325	127	190	0.51
7	230	50	4000	37	0.29	57	65	255	212	150	0.85
8	230	50	4000	35	0.27	59	67	145	292	85	1.17
9	230	50	3200	16	0.12	69	77	305	0	180	0.00
10	230	50	3200	20	0.15	57	69	260	81	150	0.33
11	230	50	3200	19	0.15	51	59	205	136	120	0.55
12	230	50	3200	18	0.14	53	61	115	187	70	0.75
13	230	50	2400	7.0	0.05	62	70	230	0	135	0.00
14	230	50	2400	8.0	0.06	49	61	195	46	115	0.18
15	230	50	2400	8.0	0.06	44	52	155	76	90	0.31
16	230	50	2400	8.0	0.06	46	54	90	105	50	0.42

U = Supply voltage · f = Frequency · n = Speed (rpm) · P_{ed} = Power input · I = Current draw · LpA_{in} = Sound pressure level inlet side · LwA_{in} = Sound power level inlet side · q_V = Air flow
p_{fs} = Pressure increase

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