R3G133-AF07-15

EC centrifugal fan

backward curved, single inlet

R3G133-AF07-15 ebmpapst Datasheet
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Nominal data

Type	**R3G133-AF07-15**	
Motor	**M3G055-BD**	
Phase		1~
Nominal voltage	VAC	230
Nominal voltage range	VAC	200 .. 240
Frequency	Hz	50/60
Type of data definition		ml
State		prelim.
Speed (rpm)	min^{-1}	4700
Power input	W	50
Current draw	A	0.5
Max. ambient temperature	°C	50

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	Coated in black
Material of electronics housing	Die-cast aluminium
Material of impeller	PA plastic
Number of blades	9
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	Rotor-side
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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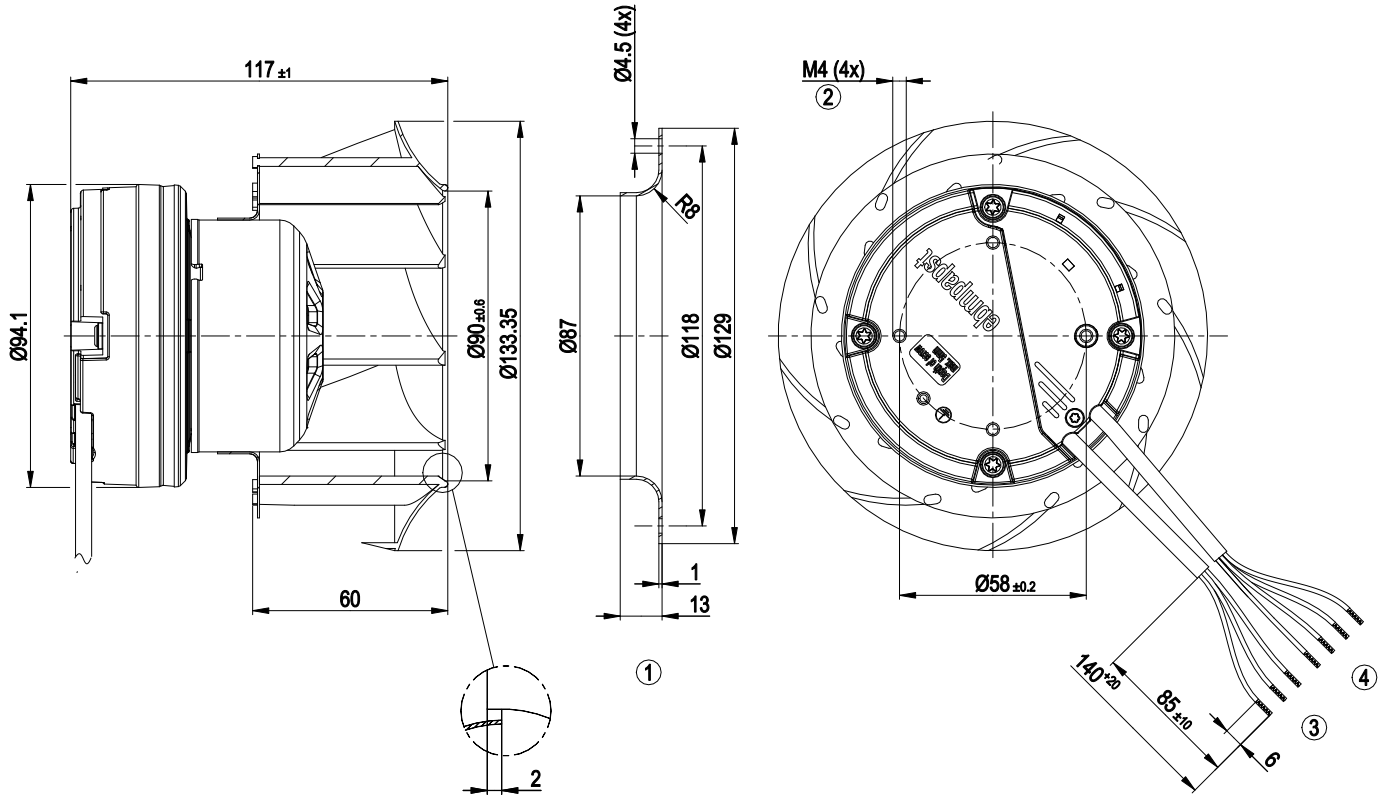
Product drawing



1	Accessory part: Inlet nozzle 09566-2-4013, not included in scope of delivery
2	Thread reach max. 6 mm
3	Connection line PVC 3G 0.5 mm², 3x lead tips crimped
4	Connection line PVC 4x 0.25 mm², 4x lead tips crimped

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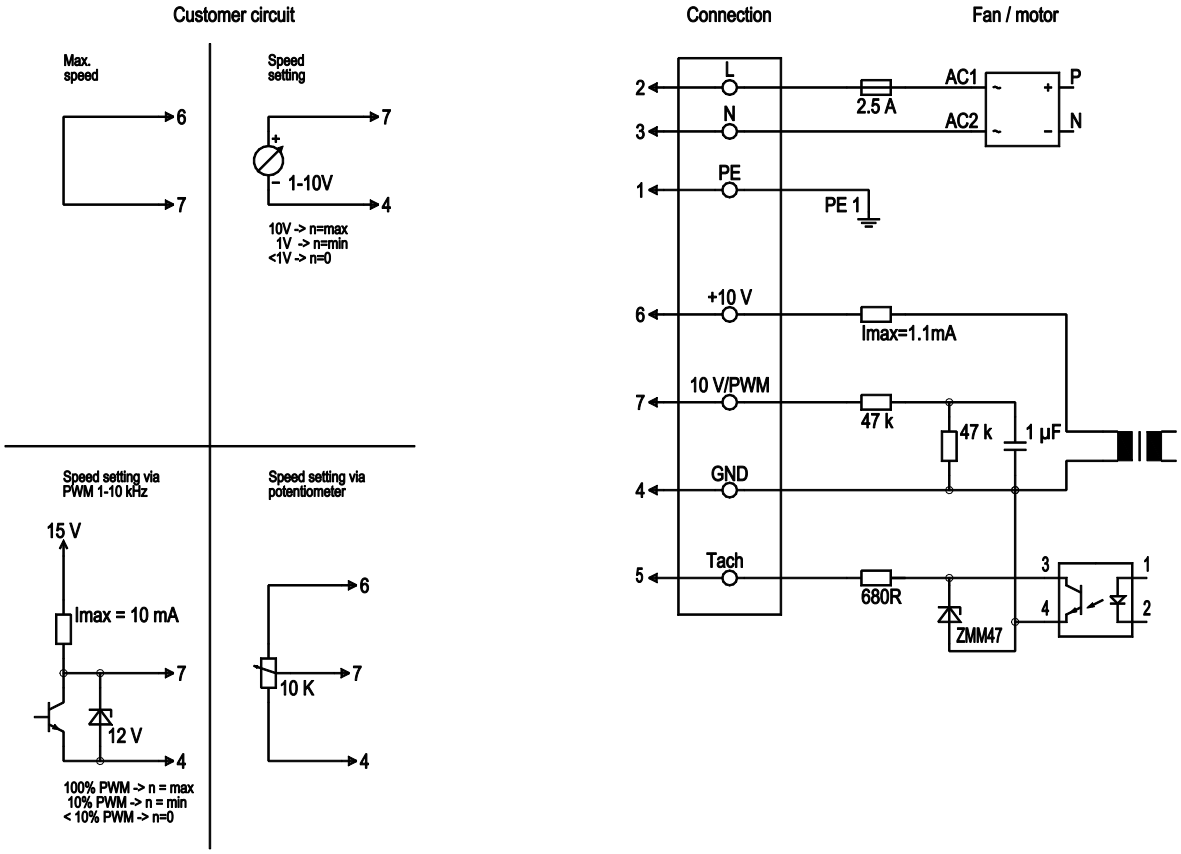
Connection screen



No.	Conn.	Designation	Colour	Function / assignment
	2	L	brown	Power supply 230 VAC, 50-60 Hz, see type plate 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	10V / max. 1.1 mA	red	Voltage output 10V / 1.1mA, electrically isolated, not short-circuit-proof
	4	GND	blue	GND - Connection for control interface

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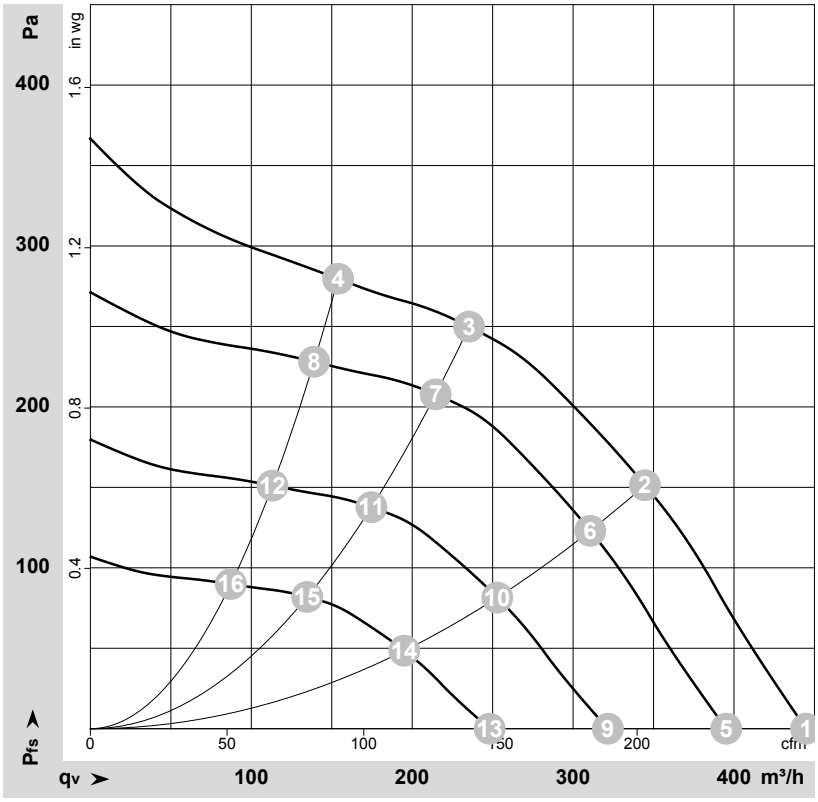
Charts: Air flow 50 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-155654-1

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	4840	42	0.43	76	83	445	0	260	0.00
2	230	50	4770	46	0.47	69	78	345	150	205	0.60
3	230	50	4700	50	0.50	62	71	235	250	140	1.00
4	230	50	4760	47	0.47	63	73	155	280	90	1.12
5	230	50	4300	29	0.30	73	80	395	0	230	0.00
6	230	50	4300	34	0.34	67	76	310	123	185	0.49
7	230	50	4300	37	0.38	60	69	215	208	125	0.84
8	230	50	4300	34	0.35	61	70	140	228	80	0.92
9	230	50	3500	16	0.16	68	75	320	0	190	0.00
10	230	50	3500	18	0.18	62	70	255	82	150	0.33
11	230	50	3500	20	0.20	55	64	175	138	105	0.55
12	230	50	3500	19	0.19	55	65	115	151	65	0.61
13	230	50	2700	7.0	0.07	61	69	250	0	145	0.00
14	230	50	2700	8.0	0.08	55	64	195	49	115	0.20
15	230	50	2700	9.0	0.09	48	57	135	82	80	0.33
16	230	50	2700	8.0	0.09	49	58	85	90	50	0.36

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