R3G133-AE07-07

EC centrifugal fan

backward curved

R3G133-AE07-07 ebmpapst Datasheet
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Nominal data

Type	**R3G133-AE07-07**
Motor	**M3G055-BD**

Phase		1~
Nominal voltage	VAC	230
Nominal voltage range	VAC	195 .. 253
Frequency	Hz	50/60
Type of data definition		fa
Speed	min^{-1}	4480
Power input	W	43
Current draw	A	0.32
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	0.94 kg
Size	133 mm
Surface of rotor	Galvanised
Material of electronics housing	Die-cast aluminium
Material of impeller	Plastic PA66, fibreglass-reinforced
Number of blades	7
Direction of rotation	Clockwise, seen on rotor
Type of protection	IP 44; Depending on installation and position as per EN 60034-5
Insulation class	"B"
Humidity class	F3-1
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	- Control input 0-10 VDC / PWM - Output 10 VDC, max. 1.1 mA - Tach output - Motor current limit - Soft start
EMC interference immunity	Acc. to EN 61000-6-2
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	Thermal overload protector (TOP) wired internally
Cable exit	Variable
Protection class	I (if protective earth is connected by customer)

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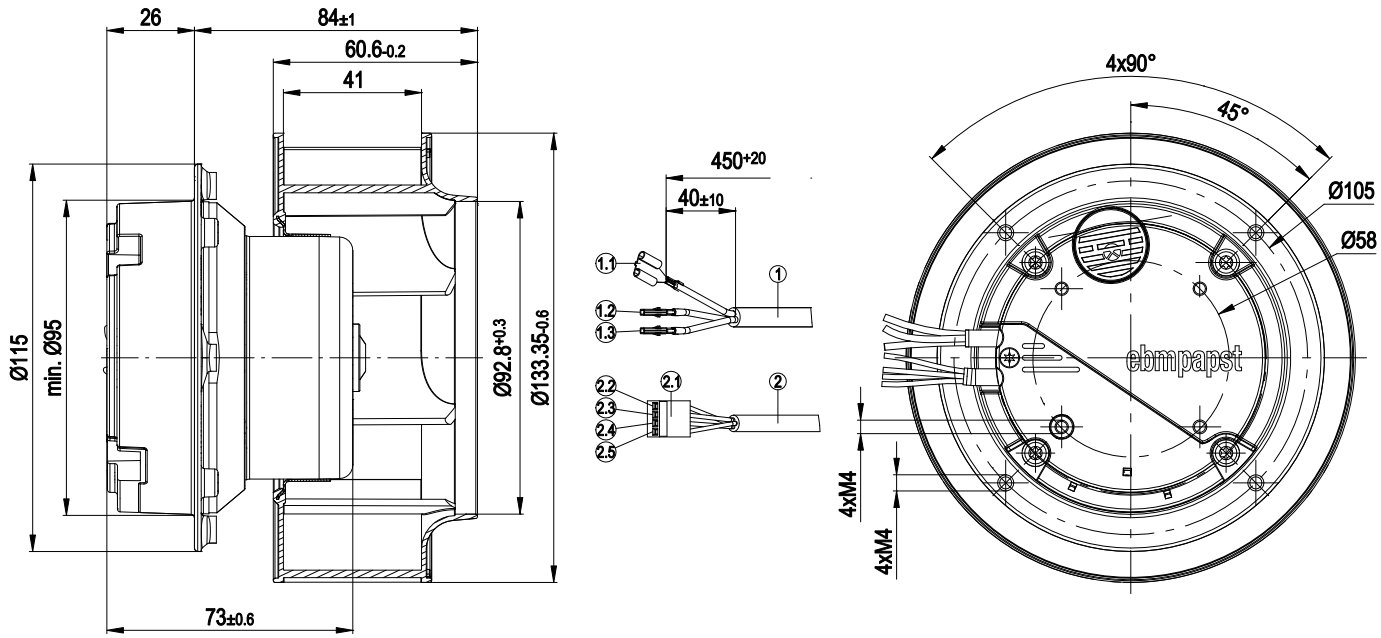
Product drawing



1	Connection line PVC 3G 0.5 mm²
1.1	green/ yellow; receptacle for tabs AMP 160389 crimped
1.2	blue, plug pin Molex 39-00-0059 crimped
1.3	brown, plug pin Molex 39-00-0059 crimped
2	Connection line PVC 4 x 0.25 mm²
2.1	Connector housing Molex 10-11-2043
2.2	white
2.3	yellow
2.4	red
2.5	blue

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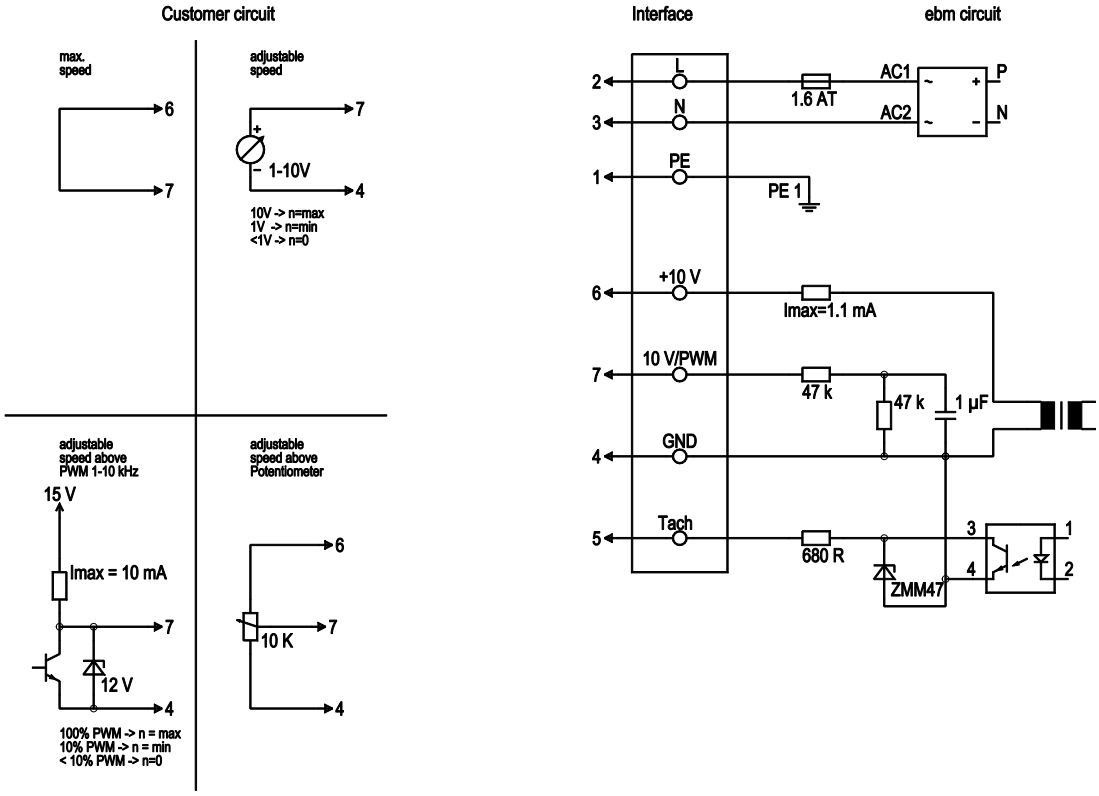
Connection screen



Line	No.	Signal	Colour	Function / assignment
1	1	PE	green/yellow	Protective earth
1	2	L	brown	Power supply 230 VAC, 50-60 Hz, see type plate for voltage range
1	3	N	blue	Neutral conductor
2	4	GND	blue	GND - Connection for control interface
2	5	Tach	white	Tach output: Open Collector, 1 pulse per revolution, electrically isolated
2	6	10V	red	max. 1.1 mA, voltage output 10 V/1.1 mA, electrically isolated, not short-circuit-proof
2	7	0-10 V PWM	yellow	Control input 0 - 10 V or PWM, electrically isolated

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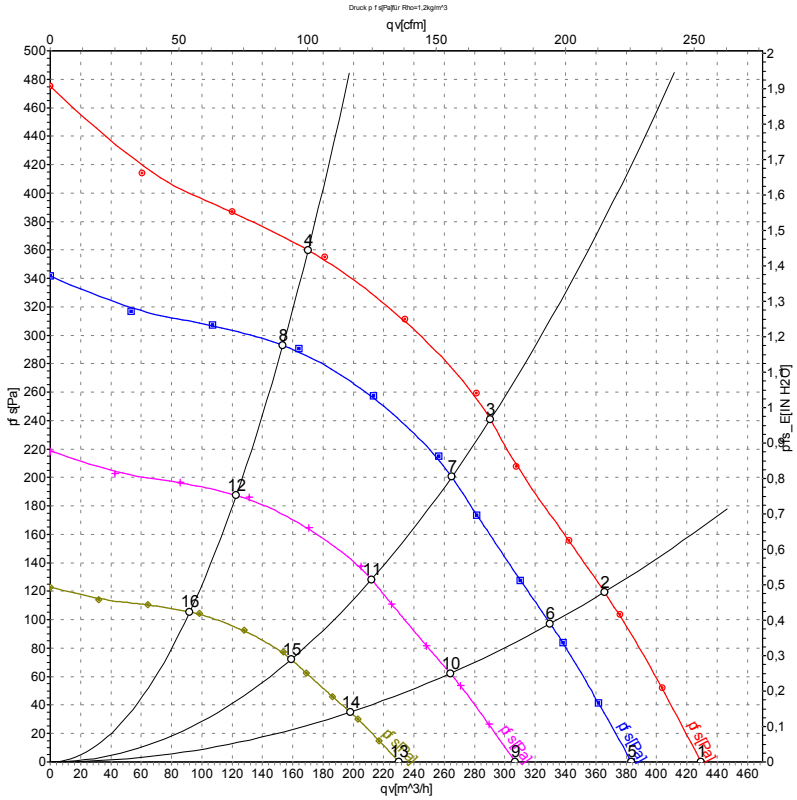
Charts: Air flow 50 Hz



Measurement: LU-68538

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	qv	p_{fs}
	V	Hz	min^{-1}	W	A	m^3/h	Pa
1	230	50	4480	43	0.32	430	0
2	230	50	4435	47	0.35	365	120
3	230	50	4385	49	0.38	290	240
4	230	50	4430	47	0.36	170	360
5	230	50	4000	31	0.23	385	0
6	230	50	4000	35	0.26	330	97
7	230	50	4000	38	0.29	265	201
8	230	50	4000	34	0.26	155	294
9	230	50	3200	16	0.12	305	0
10	230	50	3200	18	0.13	265	62
11	230	50	3200	19	0.15	210	128
12	230	50	3200	18	0.14	125	188
13	230	50	2400	6.6	0.05	230	0
14	230	50	2400	7.5	0.06	200	35
15	230	50	2400	8.1	0.06	160	72
16	230	50	2400	7.4	0.06	90	106

U = Supply voltage · f = Frequency · n = Speed · P_{ed} = Power input · I = Current draw · qv = Air flow · p_{fs} = Pressure increase