R3G190-AB07-21

EC centrifugal fan

backward curved

R3G190-AB07-21 ebmpapst Datasheet
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Nominal data

Type	**R3G190-AB07-21**	
Motor	**M3G055-CF**	
Phase		1~
Nominal voltage	VAC	230
Frequency	Hz	50/60
Type of data definition		fa
Speed	min^{-1}	3320
Power input	W	71
Current draw	A	0.5
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	1.3 kg
Size	190 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 44
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	- Output 10 VDC, max. 1.1 mA - Tach output - Motor current limit - Soft start - Control input 0-10 VDC / PWM - Over-temperature protected electronics / motor
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
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)
Product conforming to standard	EN 60335-1

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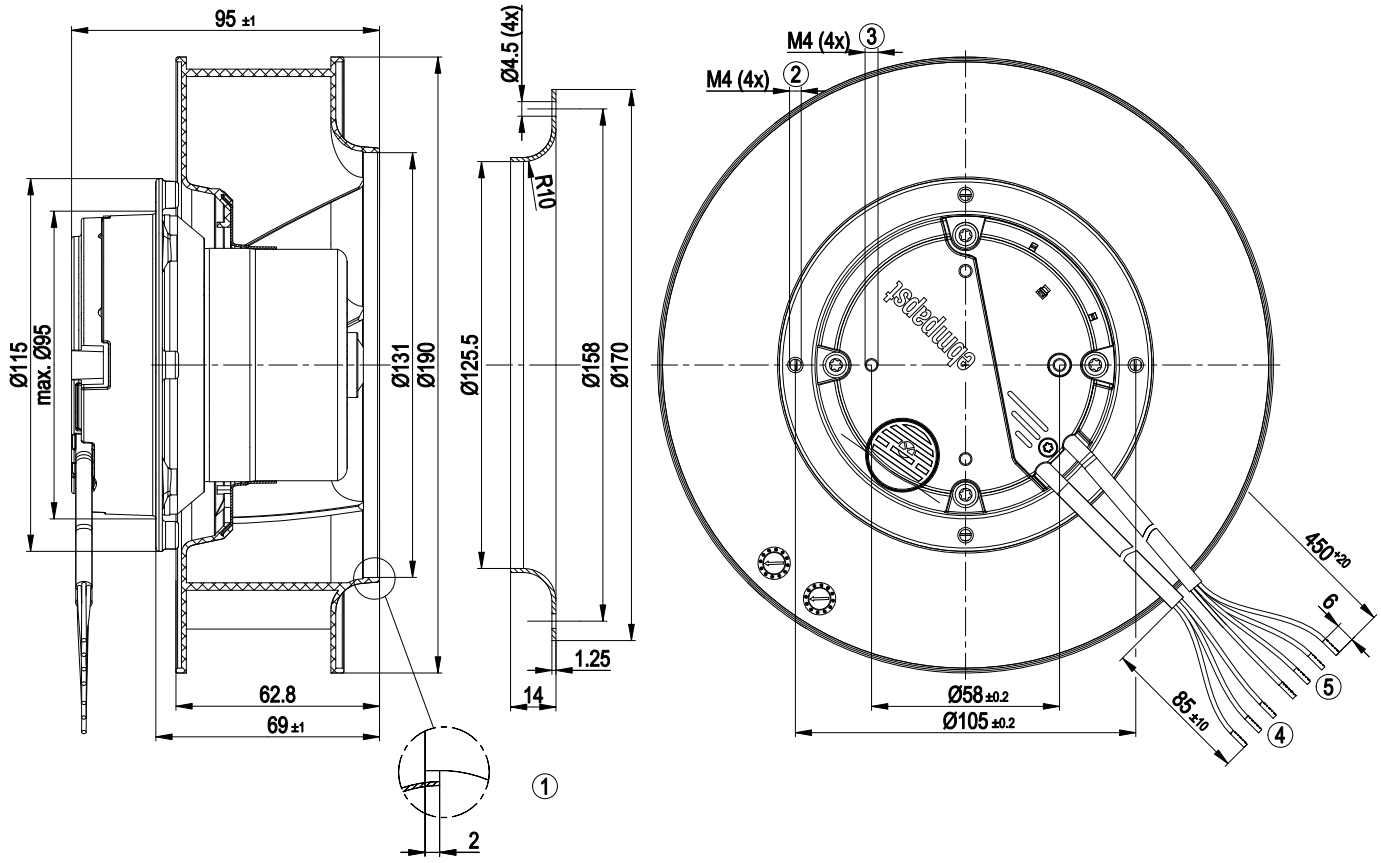
Product drawing



1	Accessory part: Inlet nozzle 09576-2-4013, not included in the standard scope of delivery
2	Depth of screw max. 6 mm
3	Depth of screw max. 6 mm
4	Connection line PVC 3G 0.5mm²; 3x brass lead tips crimped
5	Connection line PVC 4X 0.25 mm²; 4x brass lead tips crimped

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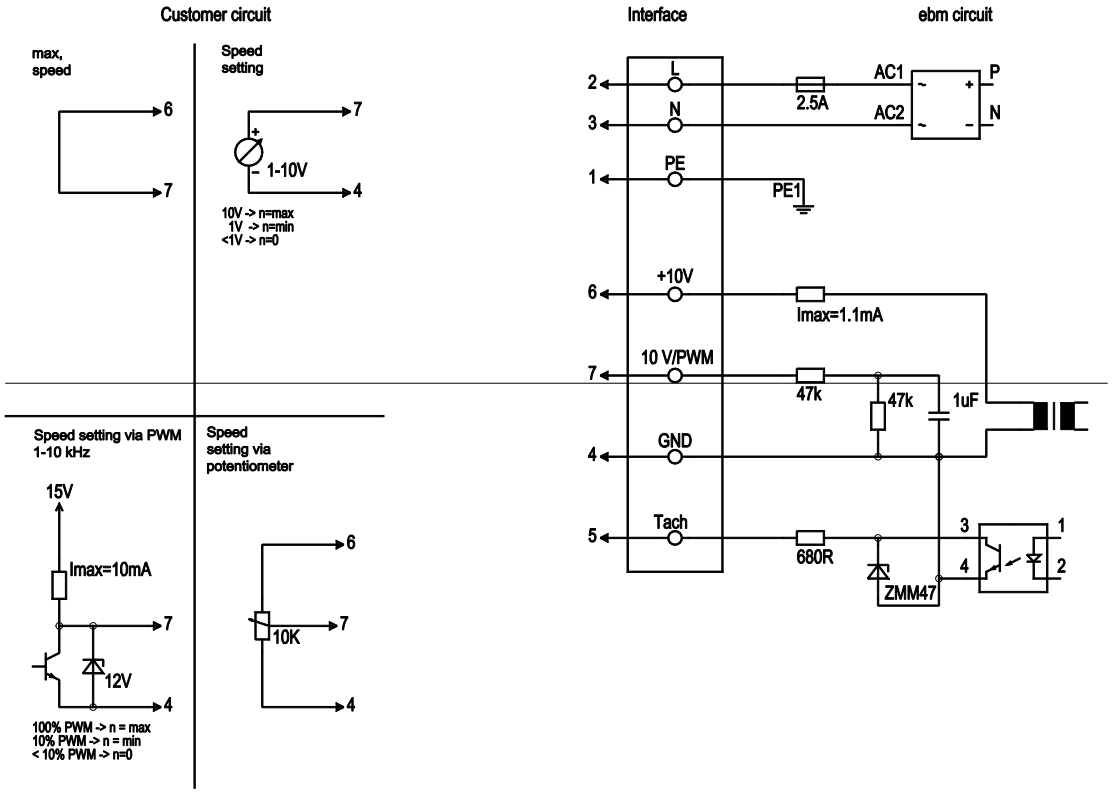
Connection screen



Line	No.	Signal	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	0-10V PWM	yellow	Control input 0 - 10 V or PWM, electrically isolated
	5	Tacho	white	Tach output: open collector, 1 pulse per revolution, electrically isolated
	6	10V/ max 1.1mA	red	Voltage output 10V/ 1.1mA, electrically isolated, short-circuit-proof.
	4	GND	Blue	GND - Connection for control interface

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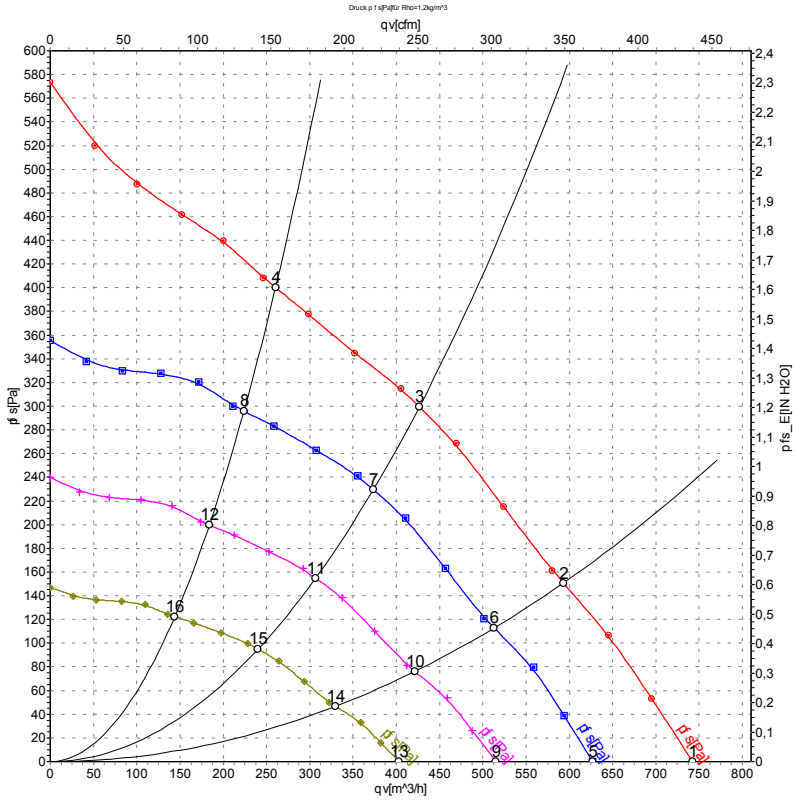
Charts: Air flow 50 Hz



Measurement: LU-108720

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}	qv	p_{fs}
	V	Hz	min^{-1}	W	A	dB(A)	dB(A)	m^3/h	Pa
1	230	50	3320	71	0.50	69	76	745	0
2	230	50	3240	78	0.58	64	73	595	150
3	230	50	3200	81	0.61	60	69	425	300
4	230	50	3255	77	0.57	62	71	260	400
5	230	50	2800	42	0.32	65	73	625	0
6	230	50	2800	50	0.37	61	70	515	112
7	230	50	2800	54	0.41	57	66	375	230
8	230	50	2800	49	0.37	59	68	225	296
9	230	50	2300	23	0.18	61	69	515	0
10	230	50	2300	28	0.21	57	66	420	76
11	230	50	2300	30	0.23	53	62	305	155
12	230	50	2300	27	0.20	55	64	185	200
13	230	50	1800	11	0.08	56	63	405	0
14	230	50	1800	13	0.10	51	60	330	46
15	230	50	1800	14	0.11	48	57	240	95
16	230	50	1800	13	0.10	49	58	145	122

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