

# EC centrifugal fan

backward curved, single inlet

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## Nominal data

<b>Type</b>	<b>R3G220-AD17-02</b>	
<b>Motor</b>	<b>M3G055-CF</b>	
Phase		1~
Nominal voltage	VAC	230
Nominal voltage range	VAC	197 .. 253
Frequency	Hz	50/60
Type of data definition		-
Speed	min <sup>-1</sup>	2740
Power input	W	100
Current draw	A	0.75
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	60

ml = max. load · me = max. efficiency · rfa = running at free air · cs = customer specs · cu = customer unit  
 Subject to alterations



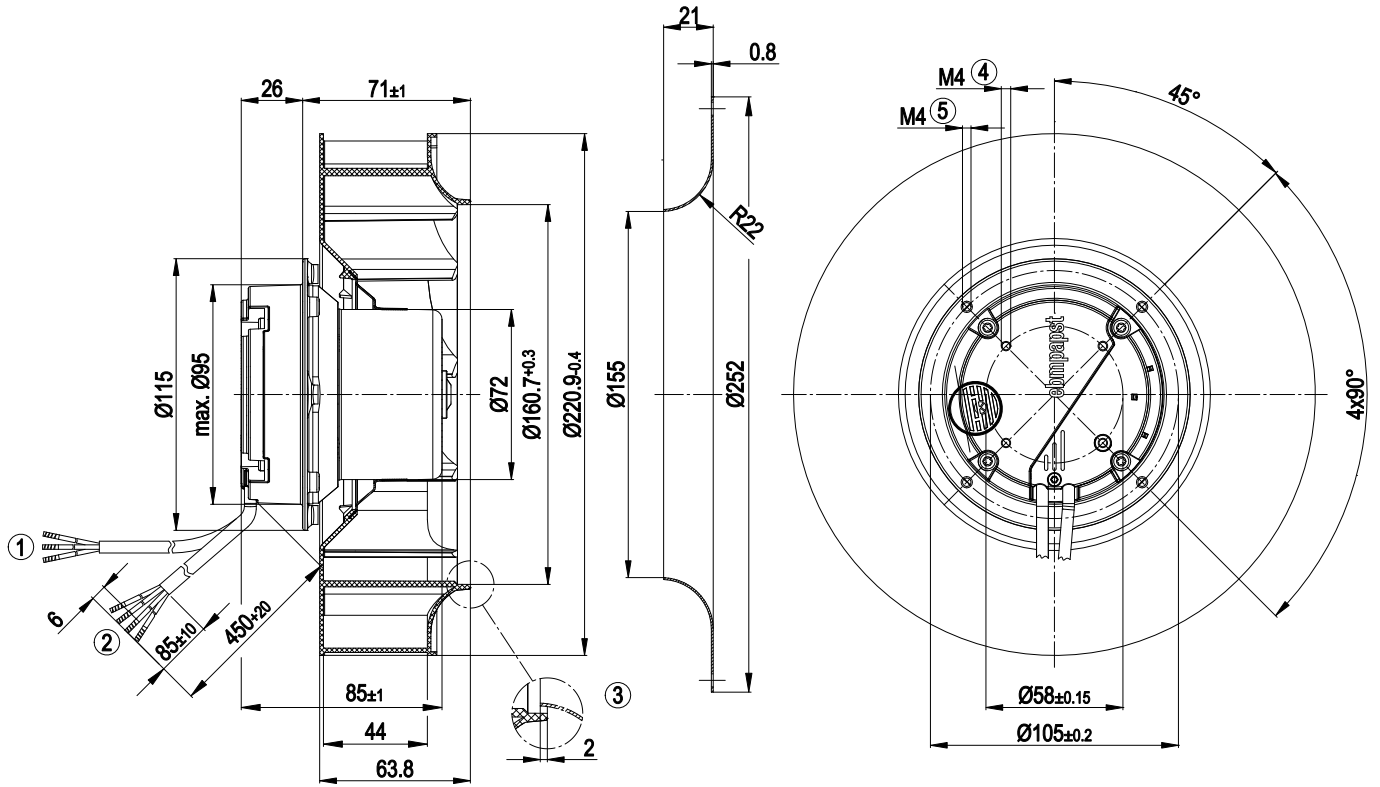
### Technical features

Leakage current	<= 3.5 mA
Size	220 mm
Operation mode	S1
Direction of rotation	Clockwise, seen on rotor
Mounting position	Any
EMC harmonics	Acc. to EN 61000-3-2/3
EMC interference emission	Acc. to EN 61000-6-3 (household environment)
EMC interference immunity	Acc. to EN 61000-6-1
Humidity class	F3-1
Insulation class	"B"
Cable exit	Variable
Condensate discharge holes	None, open rotor
Motor bearing	Ball bearing
Mass	1.4 kg
Material of impeller	Plastic PA6, fibreglass-reinforced
Motor protection	Reverse polarity and locked-rotor protection
Surface of rotor	Galvanised
Number of blades	11
Type of protection	IP 44
Protection class	I
Technical features	<ul style="list-style-type: none"> <li>- Output 10 VDC, max. 1.1 mA</li> <li>- Tach output</li> <li>- Motor current limit</li> <li>- Soft start</li> <li>- Control input 0-10 VDC / PWM</li> <li>- Over-temperature protected electronics / motor</li> </ul>
Approval	GOST

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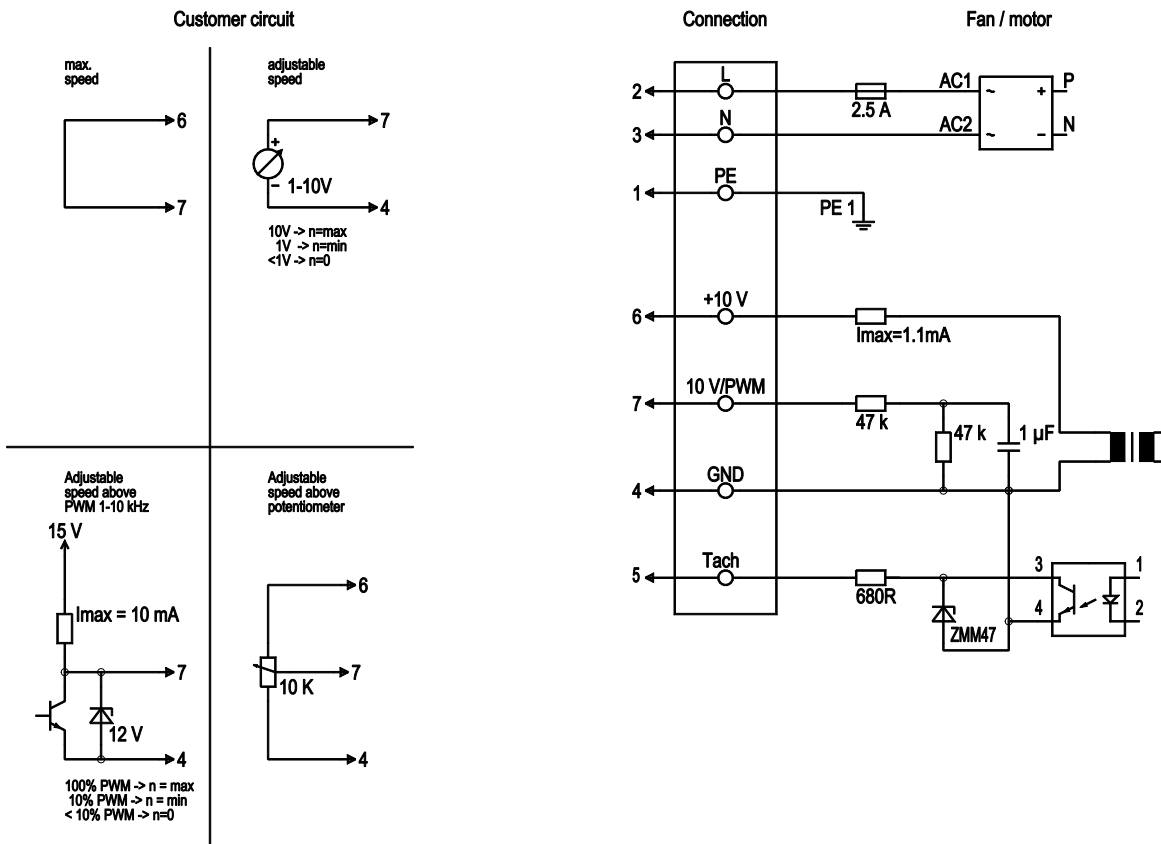
## Product drawing



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

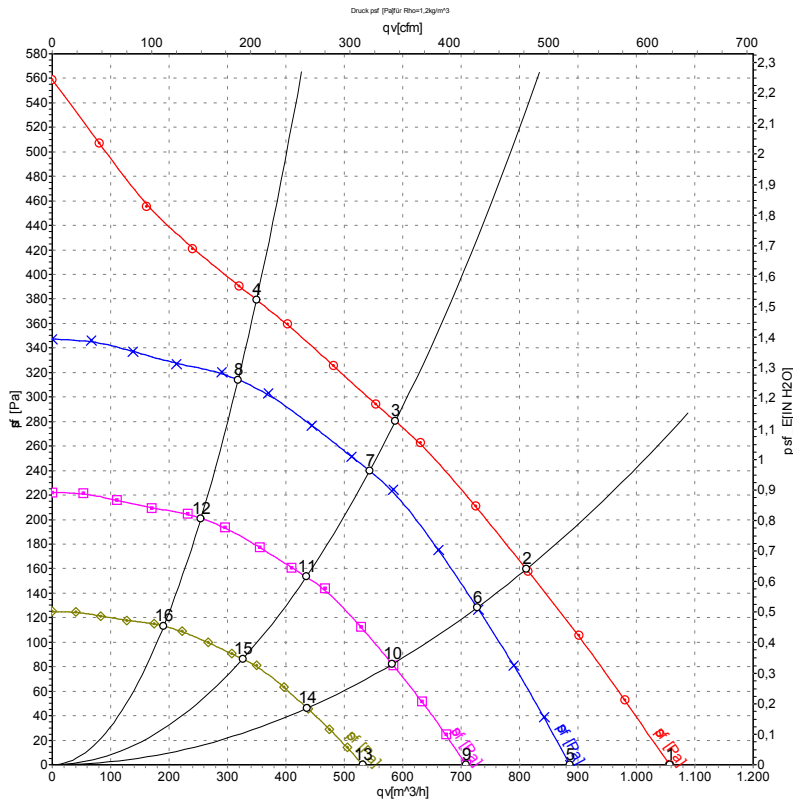


## Connection screen



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	0-10 V 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. 1.1 mA	red	Voltage output 10V / 1.1mA, electrically isolated, not short-circuit-proof
	4	GND	blue	GND - Connection for control interface

## Charts: Air flow 50 Hz



Measurement: LU-107164

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: L<sub>wA</sub> measured as per ISO 13347 / L<sub>pA</sub> 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 <sub>e</sub>	I	qv	P <sub>sf</sub>
	V	Hz	min <sup>-1</sup>	W	A	m <sup>3</sup> /h	Pa
1	230	50	2985	80	0.59	1055	0
2	230	50	2790	96	0.71	810	160
3	230	50	2740	100	0.75	590	280
4	230	50	2745	98	0.74	350	380
5	230	50	2500	47	0.35	885	0
6	230	50	2500	69	0.51	730	128
7	230	50	2500	81	0.60	545	240
8	230	50	2500	74	0.56	320	314
9	230	50	2000	24	0.18	710	0
10	230	50	2000	36	0.26	580	82
11	230	50	2000	42	0.31	435	153
12	230	50	2000	38	0.29	255	201
13	230	50	1500	10	0.08	530	0
14	230	50	1500	15	0.11	435	46
15	230	50	1500	18	0.13	325	86
16	230	50	1500	16	0.12	190	113

