

R3G220-RC05-01

# EC centrifugal fan - RadiCal®

backward curved, single inlet



## ebm-papst Mulfingen GmbH & Co. KG

Bachmühle 2 · D-74673 Mulfingen

Phone +49 7938 81-0

Fax +49 7938 81-110

info1@de.ebmpapst.com

www.ebmpapst.com

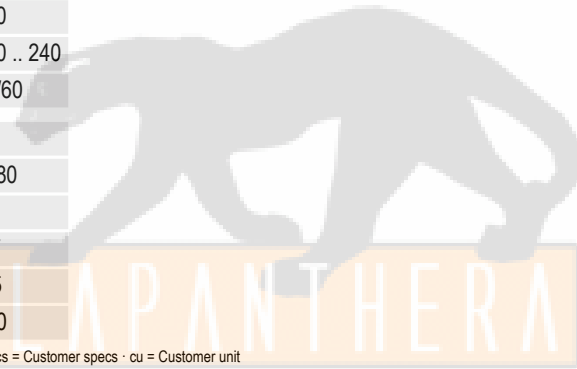
Limited partnership · Headquarters Mulfingen  
County court Stuttgart · HRA 590344

General partner Elektrobau Mulfingen GmbH · Headquarters Mulfingen  
County court Stuttgart · HRB 590142

## Nominal data

Type	R3G220-RC05-01	
Motor	M3G055-BI	
Phase		1~
Nominal voltage	VAC	230
Nominal voltage range	VAC	200 .. 240
Frequency	Hz	50/60
Type of data definition		ml
Speed	min <sup>-1</sup>	2580
Power input	W	85
Current draw	A	0.7
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	+60

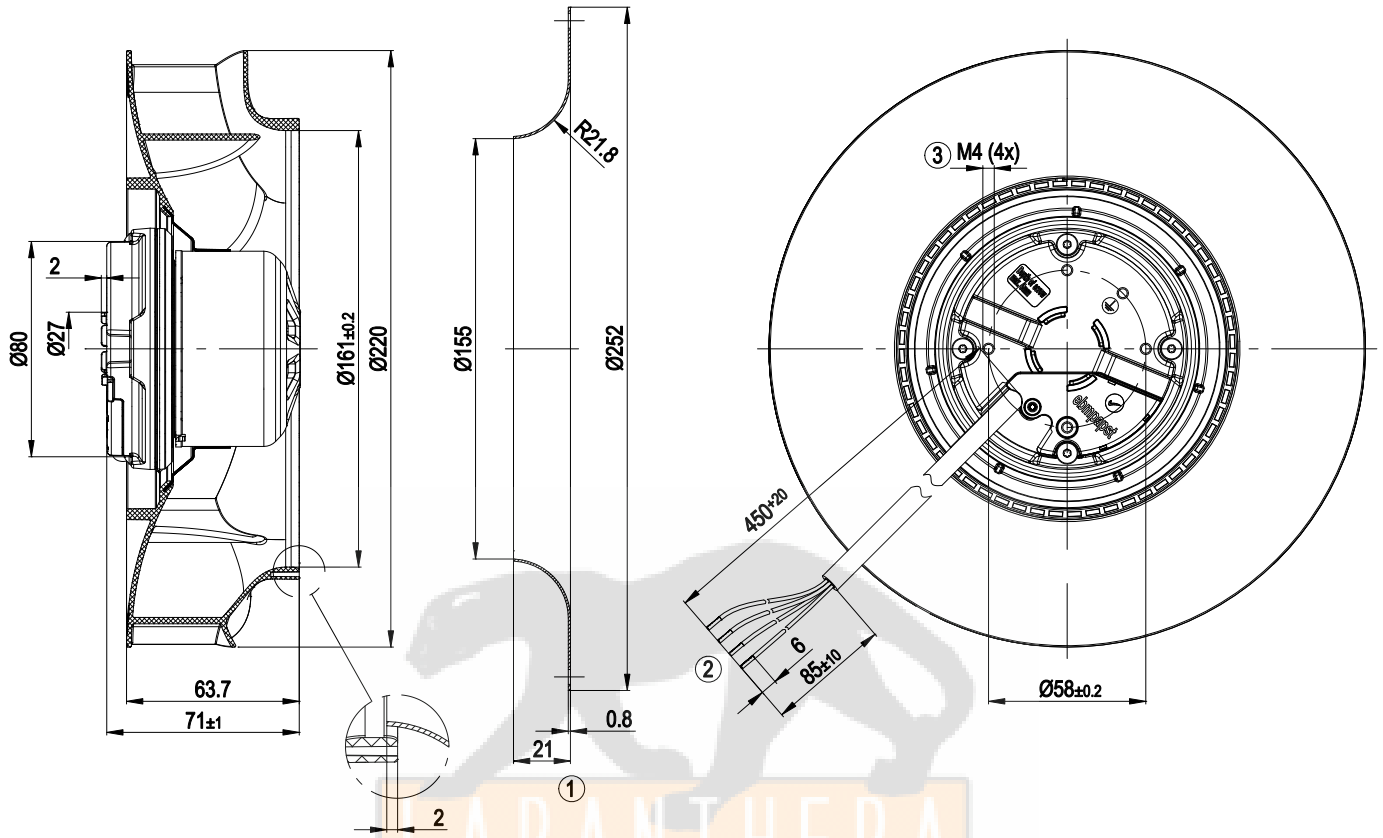
ml = Max. load · me = Max. efficiency · fa = Running at free air · cs = Customer specs · cu = Customer unit  
Subject to alterations



## Technical features

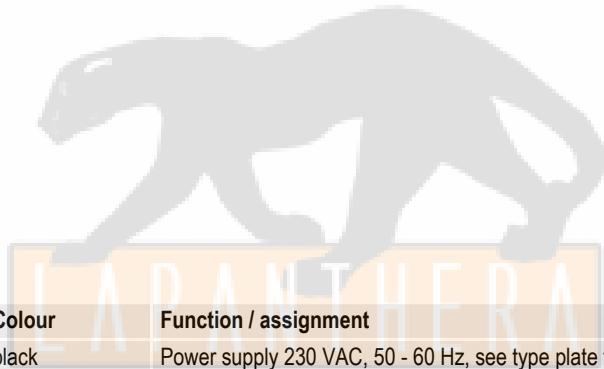
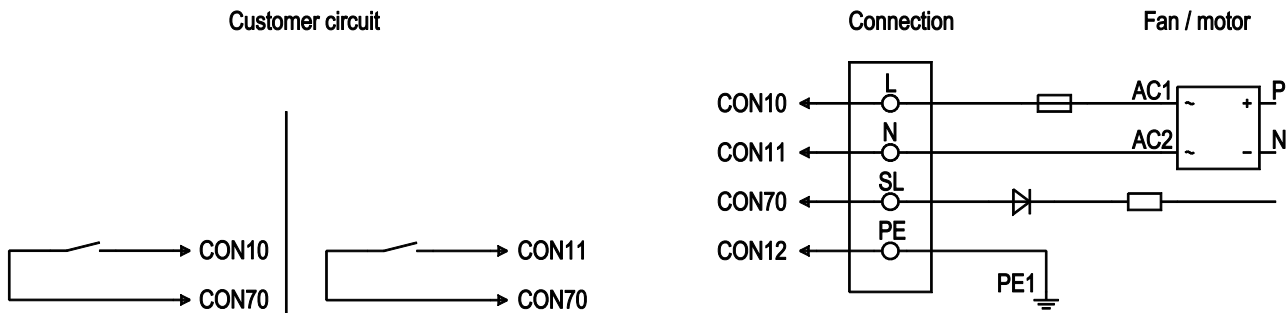
<b>Mass</b>	1.2 kg
<b>Size</b>	220 mm
<b>Surface of rotor</b>	Thick layer passivated
<b>Material of electronics housing</b>	Die-cast aluminium
<b>Material of impeller</b>	Plastic PA6, fibreglass-reinforced
<b>Number of blades</b>	7
<b>Direction of rotation</b>	Clockwise, seen on rotor
<b>Type of protection</b>	IP 54
<b>Insulation class</b>	"B"
<b>Max. permissible ambient motor temp. (transp./ storage)</b>	+ 80 °C
<b>Min. permissible ambient motor temp. (transp./storage)</b>	- 40 °C
<b>Mounting position</b>	Any
<b>Condensate discharge holes</b>	None, open rotor
<b>Operation mode</b>	S1
<b>Motor bearing</b>	Ball bearing
<b>Technical features</b>	<ul style="list-style-type: none"> <li>- Speed adjustment input (230 V)</li> <li>- Motor current limit</li> <li>- Soft start</li> <li>- Over-temperature protected electronics</li> </ul>
<b>Speed steps</b>	2
<b>EMC interference immunity</b>	Acc. to EN 61000-6-2 (industrial environment)
<b>EMC harmonics</b>	Acc. to EN 61000-3-2/3
<b>EMC interference emission</b>	Acc. to EN 61000-6-3 (household environment)
<b>Touch current acc. IEC 60990 (measuring network Fig. 4, TN system)</b>	<= 3.5 mA
<b>Motor protection</b>	Locked-rotor protection
<b>Cable exit</b>	Variable
<b>Protection class</b>	I (if protective earth is connected by customer)
<b>Product conforming to standard</b>	EN 60335-1; CE

Product drawing



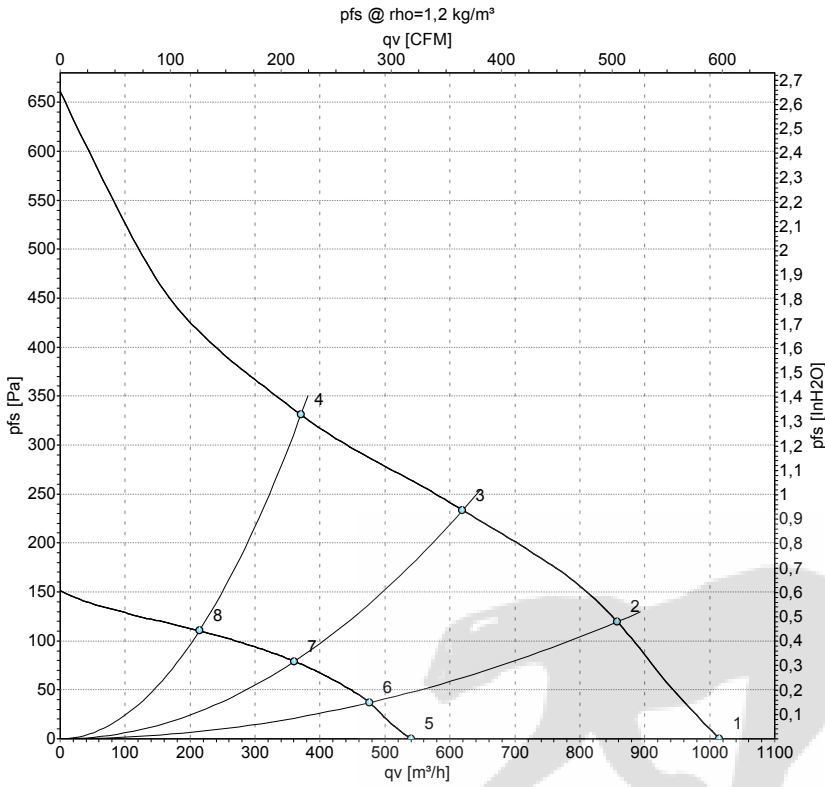
- |   |   |
|---|---|
| 1 | Accessory part: Inlet nozzle 09609-2-4013, not included in the standard scope of delivery |
| 2 | Connection line PVC 4G 0.5 mm <sup>2</sup> , 4x brass lead tips crimped                   |
| 3 | Depth of screw max. 5 mm  |

## Connection screen



Line	No.	Signal	Colour	Function / assignment
	CON 10	L	black	Power supply 230 VAC, 50 - 60 Hz, see type plate for voltage range
	CON 11	N	blue	Neutral conductor
	CON 12	PE	green/yellow	Protective earth
	CON 70	SL	brown	Speed selection: switch open = speed 1; switch closed = speed 2

## Charts: Air flow 50 Hz



Measurement: LU-152958  
Measurement: LU-152961

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 <sub>ed</sub>	I	qv	p <sub>fs</sub>
	V	Hz	min <sup>-1</sup>	W	A	m <sup>3</sup> /h	Pa
1	230	50	2815	85	0.70	1015	0
2	230	50	2700	85	0.70	855	120
3	230	50	2580	85	0.70	620	240
4	230	50	2605	85	0.70	370	335
5	230	50	1550	17	0.19	540	0
6	230	50	1535	18	0.20	475	38
7	230	50	1510	19	0.21	360	79
8	230	50	1515	19	0.20	215	110

U = Supply voltage · f = Frequency · n = Speed · P<sub>ed</sub> = Power input · I = Current draw · qv = Air flow · p<sub>fs</sub> = Pressure increase

