

R1G220-AB35-82

# EC centrifugal fan

backward curved, single inlet



R1G220-AB35-82 ebmpapst Datasheet

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Limited partnership · Headquarters Mulfingen  
County court Stuttgart · HRA 590344

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

## Nominal data

Type	R1G220-AB35-82	
Motor	M1G074-BF	
Nominal voltage	VDC	26
Nominal voltage range	VDC	16 .. 30
Type of data definition		fa
Speed	min <sup>-1</sup>	3350
Power input	W	120
Current draw	A	5.2
Min. ambient temperature	°C	- 25
Max. ambient temperature	°C	+ 65

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



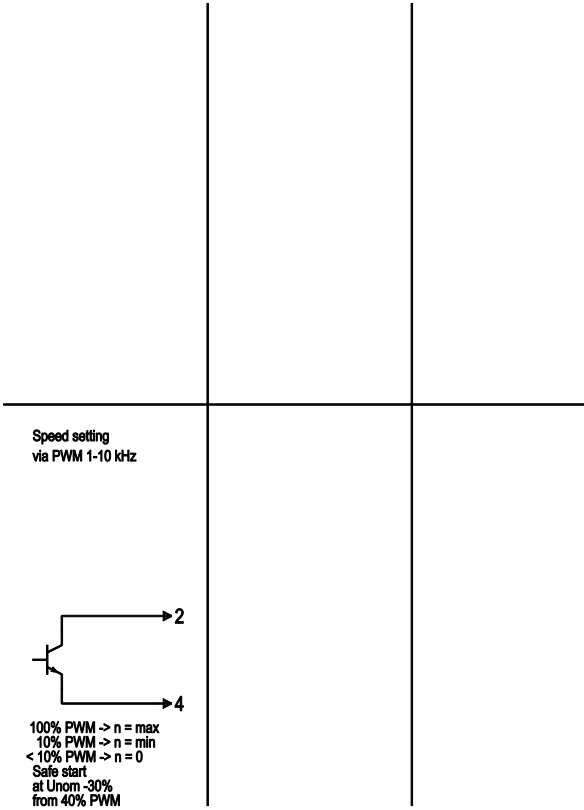
### Technical features

<b>Mass</b>	1.37 kg
<b>Size</b>	220 mm
<b>Surface of rotor</b>	Coated in black
<b>Material of impeller</b>	PA plastic 6.6, fibreglass-reinforced
<b>Number of blades</b>	11
<b>Direction of rotation</b>	Clockwise, seen on rotor
<b>Type of protection</b>	IP 20
<b>Insulation class</b>	"B"
<b>Humidity class</b>	F0
<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>	Rotor-side
<b>Cooling bore / aperture</b>	Rotor-side
<b>Operation mode</b>	S1
<b>Motor bearing</b>	Ball bearing
<b>Technical features</b>	<ul style="list-style-type: none"> <li>- PWM control input</li> <li>- Tach output</li> <li>- Motor current limit</li> <li>- Soft start</li> </ul>
<b>EMC interference immunity</b>	Acc. to EN 61000-6-2
<b>EMC interference emission</b>	Acc. to EN 55022 (Class B)
<b>Motor protection</b>	Reverse polarity and locked-rotor protection
<b>Cable exit</b>	Variable
<b>Product conforming to standard</b>	EN 60950-1
<b>Approval</b>	CSA C22.2 Nr.77; UL 1004-1



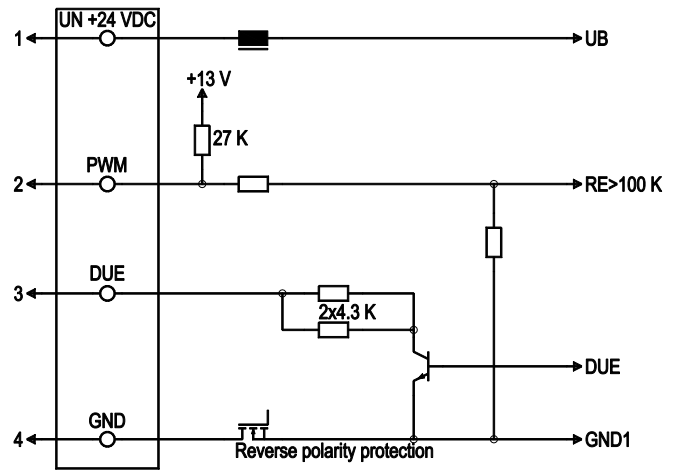
## Connection screen

Customer circuit



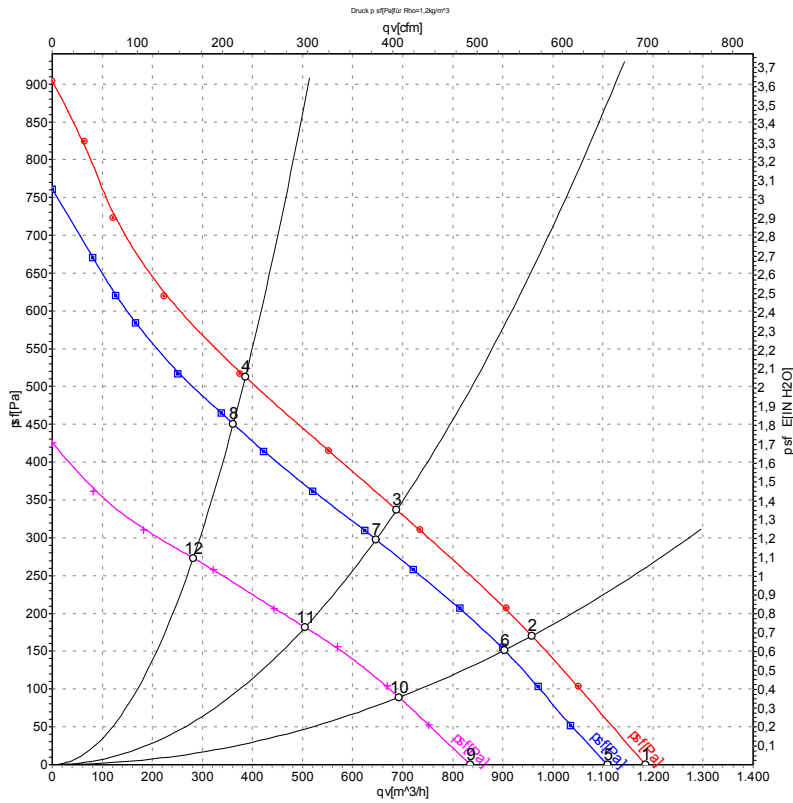
Connection

Fan / motor



Line	No.	Signal	Colour	Function / assignment
1	1	Un +24 VDC	red	Power supply 24 VDC, residual ripple 3.5 %
1	2	PWM	black	PWM control input
1	3	DUE	white	Speed monitoring output, 3 pulses per revolution, Isink max = 10 mA
1	4	GND	blue	Reference mass

## Charts: Air flow



Measurement: LU-62053  
 Measurement: LU-62052  
 Measurement: LU-62055

Air performance measured as per ISO 5801 Installation category A. For detailed information on the measuring set-up, please contact ebmpapst. 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	n	P <sub>e</sub>	I	qv	p <sub>sf</sub>
	V	min <sup>-1</sup>	W	A	m <sup>3</sup> /h	Pa
1	30	3580	145	5.64	1185	0
2	30	3335	150	5.97	960	170
3	30	3190	153	6.20	690	337
4	30	3210	152	6.17	385	511
5	26	3350	120	5.20	1110	0
6	26	3135	124	5.51	905	152
7	26	2990	127	5.71	645	298
8	26	3025	126	5.65	360	451
9	16	2535	54	3.80	835	0
10	16	2415	58	4.10	695	89
11	16	2340	61	4.30	505	182
12	16	2365	60	4.22	280	273

