EC centrifugal fan

backward curved, single inlet

R1G310-AD33-15 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	**R1G310-AD33-15**	
Motor	**M1G074-CF**	
Nominal voltage	VDC	48
Nominal voltage range	VDC	36 .. 57
Type of data definition		fa
Speed	min-1	1600
Power input	W	90
Current draw	A	2.2
Max. ambient temperature	°C	+ 45

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	2.6 kg
Size	310 mm
Surface of rotor	Coated in black
Material of impeller	Sheet aluminum, laser-welded, coated in black
Number of blades	6
Direction of rotation	Clockwise, seen on rotor
Type of protection	IP 44
Insulation class	"B"
Humidity class	F4-2
Max. permissible ambient motor temp. (transp./ storage)	+80 °C
Min. permissible ambient motor temp. (transp./storage)	-40 °C
Mounting position	Any
Condensate discharge holes	None
Operation mode	S1
Motor bearing	Ball bearing
Technical features	- Control input 0-10 VDC / PWM - Tach output - Motor current limit - Soft start
EMC interference immunity	Acc. to EN 61000-6-2 (industrial environment)
EMC interference emission	Acc. to EN 61000-6-3
Motor protection	Reverse polarity and locked-rotor protection
Cable exit	Variable
Product conforming to standard	EN 60950-1
Approval	CCC; CSA C22.2 Nr.77; UL 1004-1

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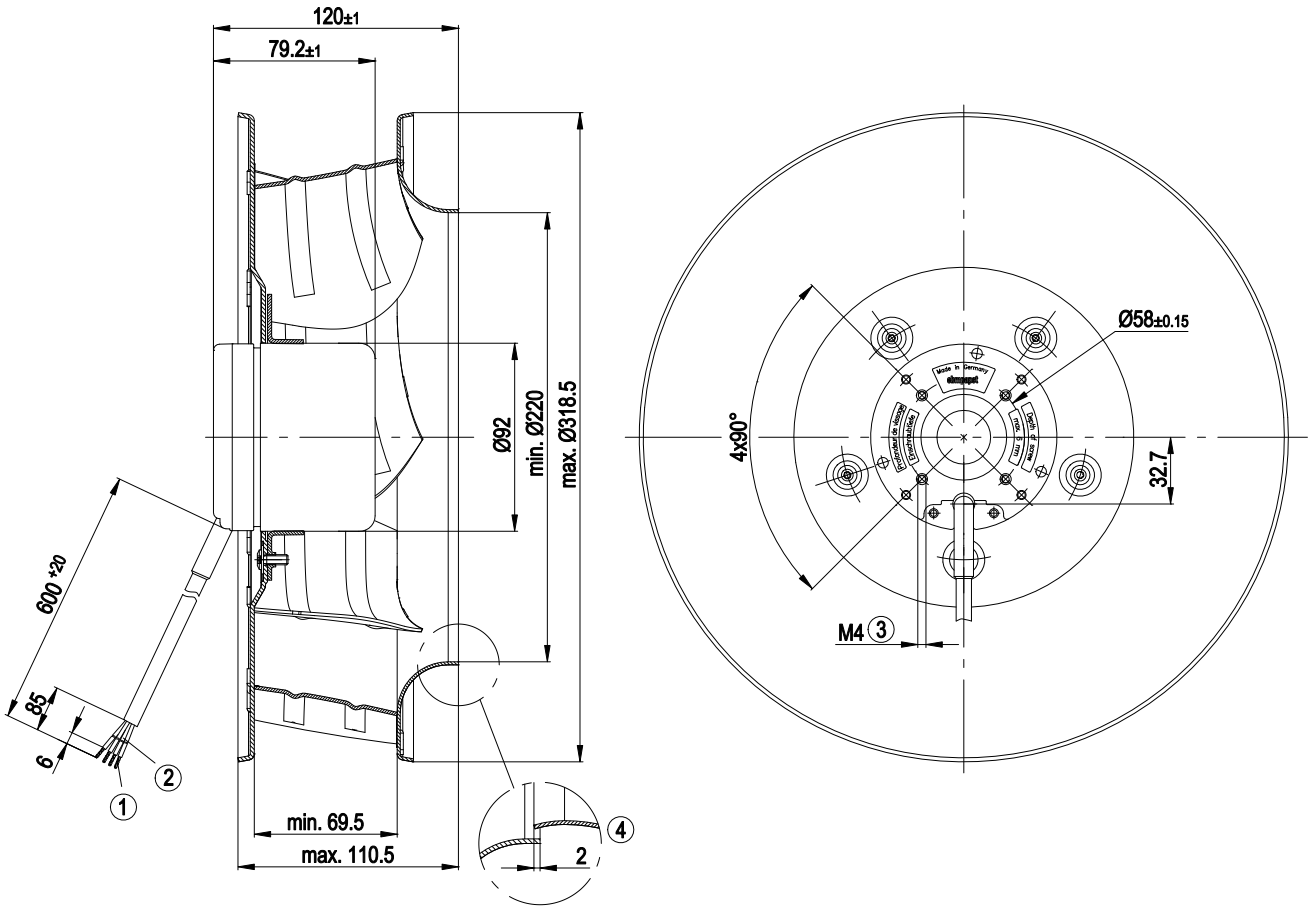
Product drawing



1	Brass lead tips
2	Connection line 4 x AWG20: red = +, yellow = 0-10 VDC, white = speed monitoring, blue = GND
3	Screw depth max. 6 mm
4	Accessory part: Inlet nozzle 31050-2-4013, not included in the standard scope of delivery

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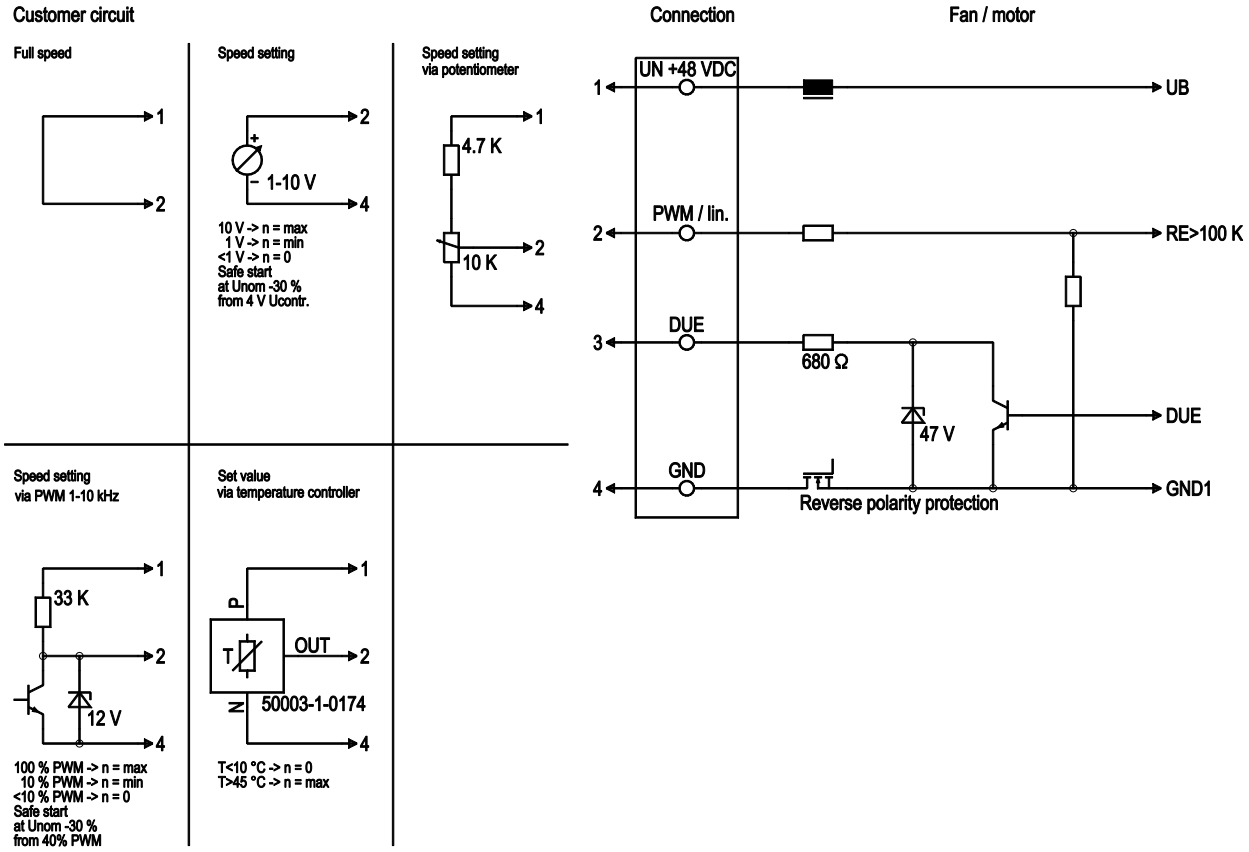
Connection screen



Line	No.	Signal	Colour	Function / assignment
1	1	Un +48 VDC	red	Power supply 48 VDC, residual ripple 3.5 %
1	2	PWM / lin	yellow	PWM / lin. control input, 0-10 V
1	3	DUE	white	Speed monitoring output, 3 pulses per rotation, Isink max = 10 mA
1	4	GND	blue	Reference mass

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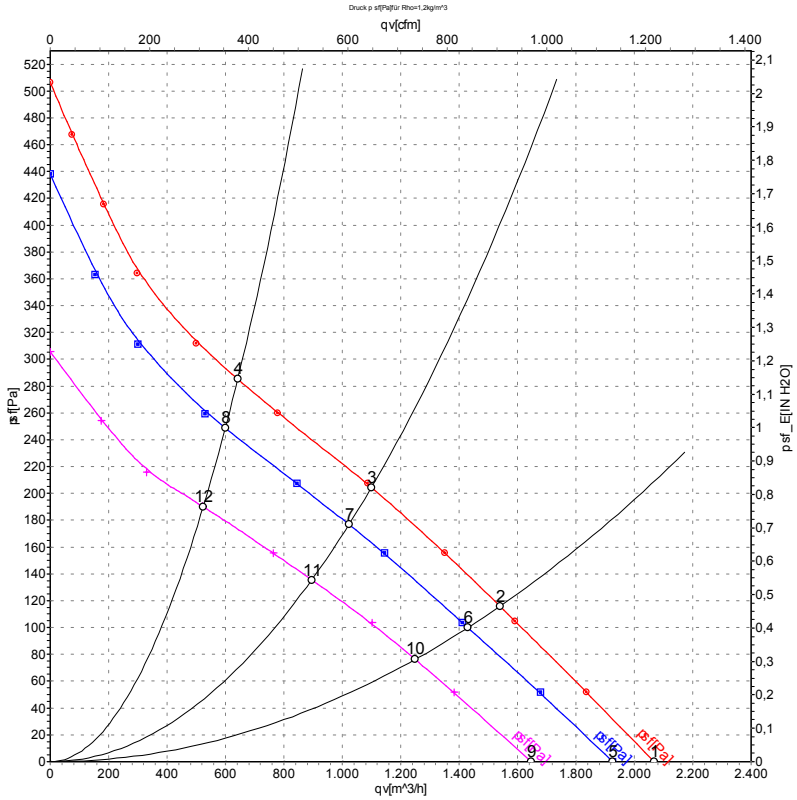
Charts: Air flow



Measurement: LU-55399
Measurement: LU-55398
Measurement: LU-55400

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	n	P_e	I	LpA_{in}	qv	p_{sf}
	V	min^{-1}	W	A	dB(A)	m^3/h	Pa
1	57	1725	113	2.40	66	2065	0
2	57	1550	122	2.66	60	1540	116
3	57	1490	125	2.77	59	1100	205
4	57	1545	122	2.67	63	640	285
5	48	1600	90	2.20	64	1925	0
6	48	1445	96	2.38	58	1430	100
7	48	1390	99	2.47	58	1025	175
8	48	1440	97	2.39	61	600	250
9	36	1375	57	1.79	60	1650	0
10	36	1265	65	2.02	55	1250	76
11	36	1225	67	2.09	54	895	136
12	36	1255	65	2.05	58	525	190