R1G225-RD02-02

EC centrifugal fan - RadiCal

backward curved, single inlet

R1G225-RD02-02 ebmpapst Datasheet
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Nominal data

Type	**R1G225-RD02-02**	
Motor	**M1G074-BF**	
Nominal voltage	VDC	48
Nominal voltage range	VDC	36 .. 57
Type of data definition		fa
State		prelim.
Speed (rpm)	min^{-1}	2640
Power input	W	110
Current draw	A	3.2
Min. ambient temperature	°C	-40
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	1.6 kg
Size	225 mm
Surface of rotor	Galvanised
Material of electronics housing	Die-cast aluminium, coated in black
Material of impeller	PA plastic
Number of blades	7
Direction of rotation	Clockwise, seen on rotor
Type of protection	IP 24 KM; Electronics IP 66 / 69 K
Insulation class	"B"
Humidity (F)/environmental protection class (H)	H2+
Note ambient temperature	Occasional start-up between -40°C and -25°C is permissible. For continuous operation at ambient temperatures below -25°C (e.g. refrigeration applications) we recommend our fan version with special low-temperature bearings.
Max. permissible ambient motor temp. (transp./ storage)	+70 °C
Min. permissible ambient motor temp. (transp./storage)	-40 °C
Mounting position	Shaft horizontal or rotor on bottom; rotor on top on request
Condensate discharge holes	Rotor-side
Operation mode	S1
Motor bearing	Ball bearing; (sealed)
Technical features	- Tach output - Motor current limit - Soft start - Control input 0-10 VDC / PWM - Overvoltage detection - Over-temperature protected electronics
Motor protection	Reverse polarity and locked-rotor protection
Cable exit	Axial
Approval	UL 507; EAC

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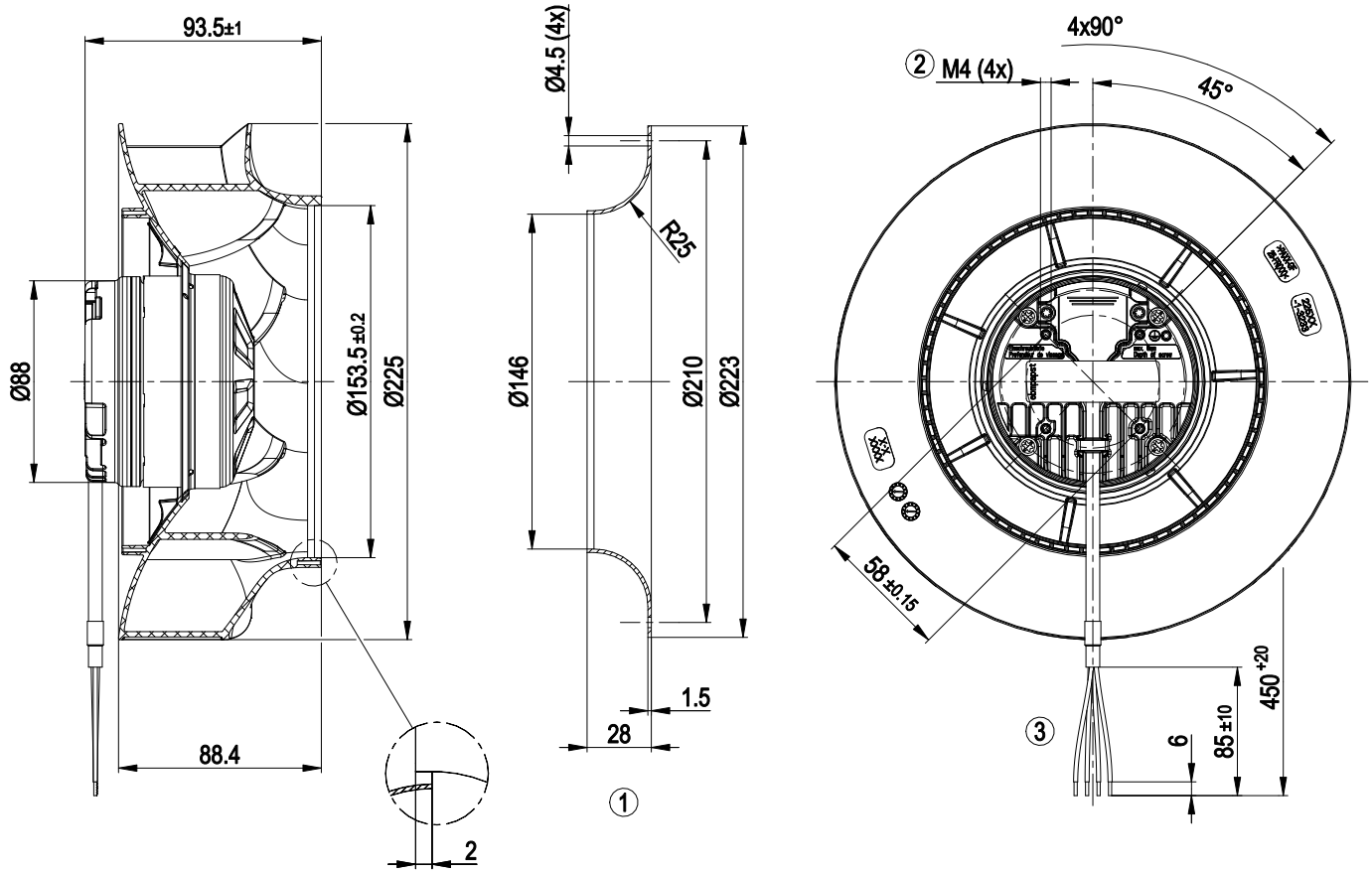
Product drawing



1	Accessory part: Inlet nozzle 96358-2-4013 not included in scope of delivery
2	Thread reach max. 6 mm
3	Connection line PVC 4x AWG18, insulating sleeve, 4x lead tips crimped

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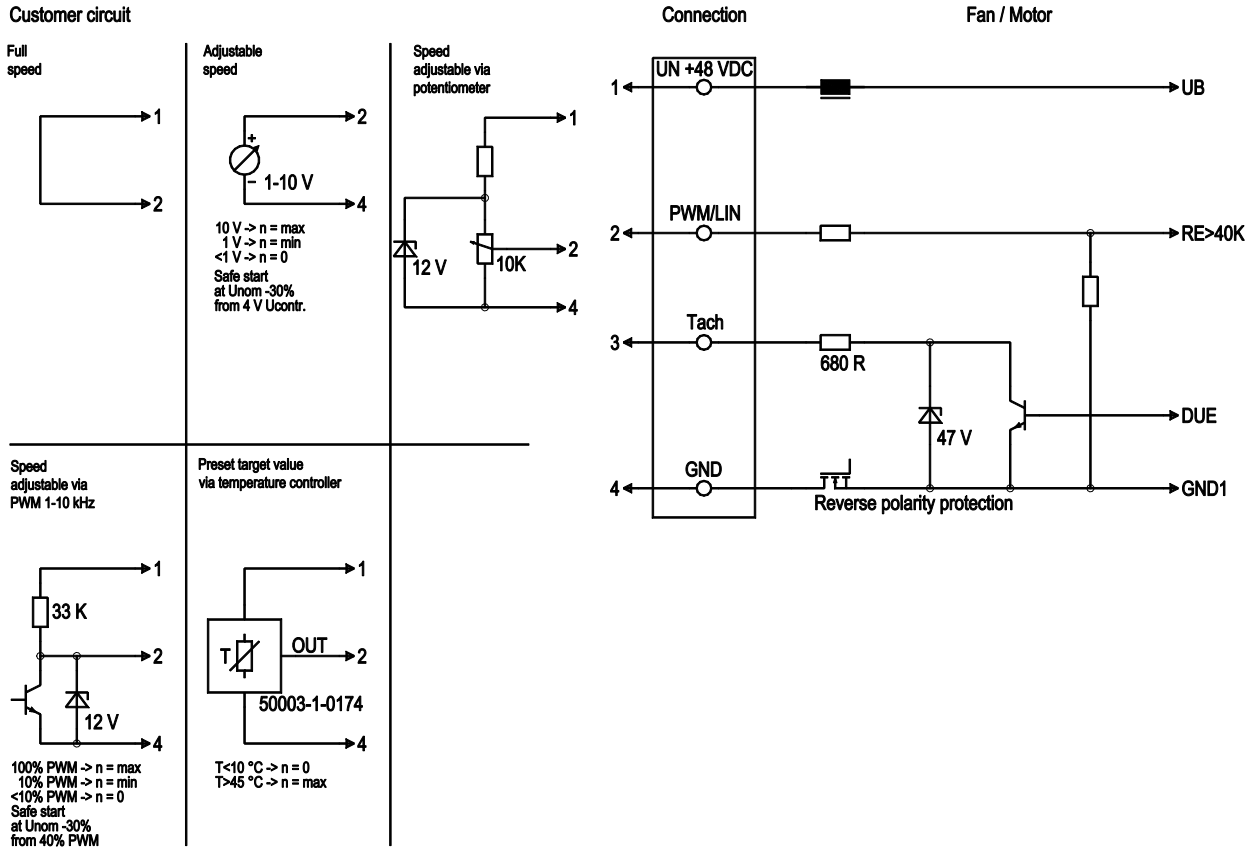
Connection screen



No.	Conn.	Designation	Colour	Function / assignment
1	1	UN +48 VDC	red	Power supply 48 VDC, maximum ripple 3.5 %
1	2	PWM/LIN	yellow	Control input Re > 100 K
1	3	Tach	white	Speed monitoring output, 3 pulses per revolution, Isink max = 10 mA
1	4	GND	blue	Reference earth

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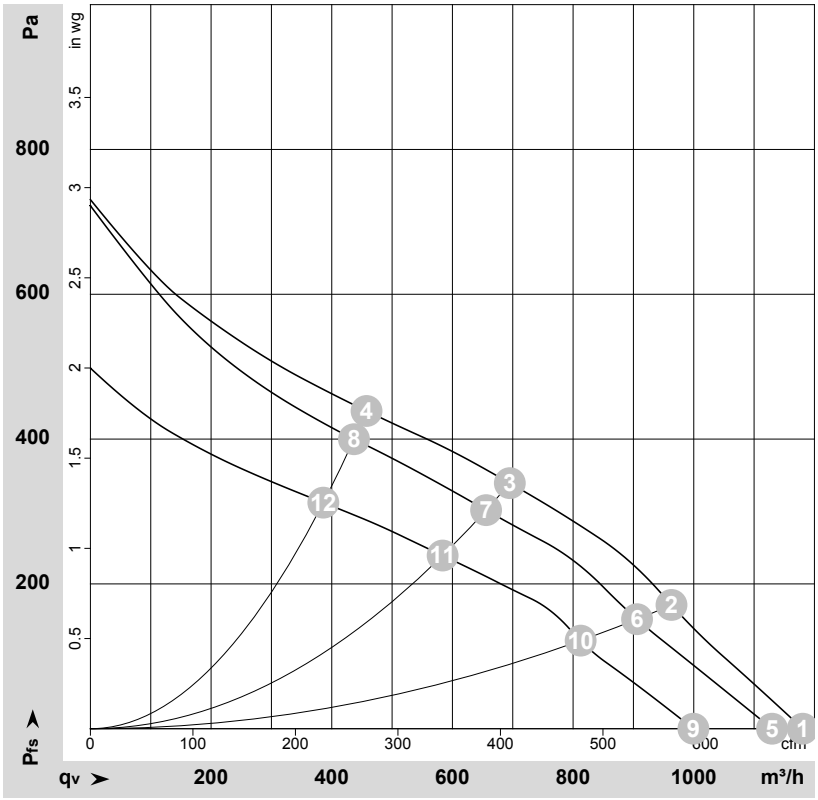
Charts: Air flow



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-167430-1
Measurement: LU-167245-1
Measurement: LU-167427-1

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_{ed}	I	LpA_{in}	LwA_{in}	q_V	p_{fs}	q_V	p_{fs}
	V	min^{-1}	W	A	dB(A)	dB(A)	m^3/h	Pa	cfm	inH2O
1	57	2760	129	3.56			1180	0	695	0.00
2	57	2655	139	3.87			965	171	565	0.69
3	57	2635	139	3.92			695	339	410	1.36
4	57	2710	133	3.71			460	439	270	1.76
5	48	2640	110	3.20	67	75	1130	0	665	0.00
6	48	2495	115	3.40	62	70	905	150	535	0.60
7	48	2505	114	3.38	59	66	655	300	385	1.20
8	48	2585	112	3.25	62	69	435	400	255	1.61
9	36	2330	74	2.63			1000	0	590	0.00
10	36	2240	77	2.79			815	121	480	0.49
11	36	2235	78	2.80			585	239	345	0.96
12	36	2300	76	2.69			385	312	225	1.25

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