R1G280-RC71-02

EC centrifugal fan - RadiCal

backward-curved, single-intake

R1G280-RC71-02 ebmpapst Datesheet

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Nominal data

Type	**R1G280-RC71-02**
Motor	**M1G074-CF**

Nominal voltage	VDC	24
Nominal voltage range	VDC	16 .. 28
Method of obtaining data		fa
Status		prelim.
Speed (rpm)	min^{-1}	1700
Power consumption	W	105
Current draw	A	4.4
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	60

ml = Max. load · me = Max. efficiency · fa = Free air · cs = Customer specification · ce = Customer equipment
Subject to change

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Technical description

Weight	2.3 kg
Size	280 mm
Motor size	74
Rotor surface	Galvanized
Electronics housing material	Die-cast aluminum, painted black
Impeller material	PP plastic
Number of blades	7
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	Motor IP24 KM, electronics IP6K9K (mating connector installed)
Insulation class	"B"
Moisture (F) / Environmental (H) protection class	H2+
Max. permitted ambient temp. for motor (transport/storage)	+80 °C
Min. permitted ambient temp. for motor (transport/storage)	-40 °C
Installation position	Shaft horizontal or rotor on bottom; rotor on top on request
Condensation drainage holes	On rotor side
Mode	S1
Motor bearing	Ball bearing; (sealed)
Technical features	- Tach output - Motor current limitation - Soft start - Control input 0-10 VDC / PWM - Overvoltage detection - Thermal overload protection for electronics - Reverse polarity protection
With cable	Variable
Protection class assignment	III; Requires supply with safety extra-low voltage SELV. This component for installation may have several local protection classes. This information relates to this component's basic design. The final protection class is based on the component's intended installation and connection.
Approval	CSA C22.2 No. 113; UL 507; EAC

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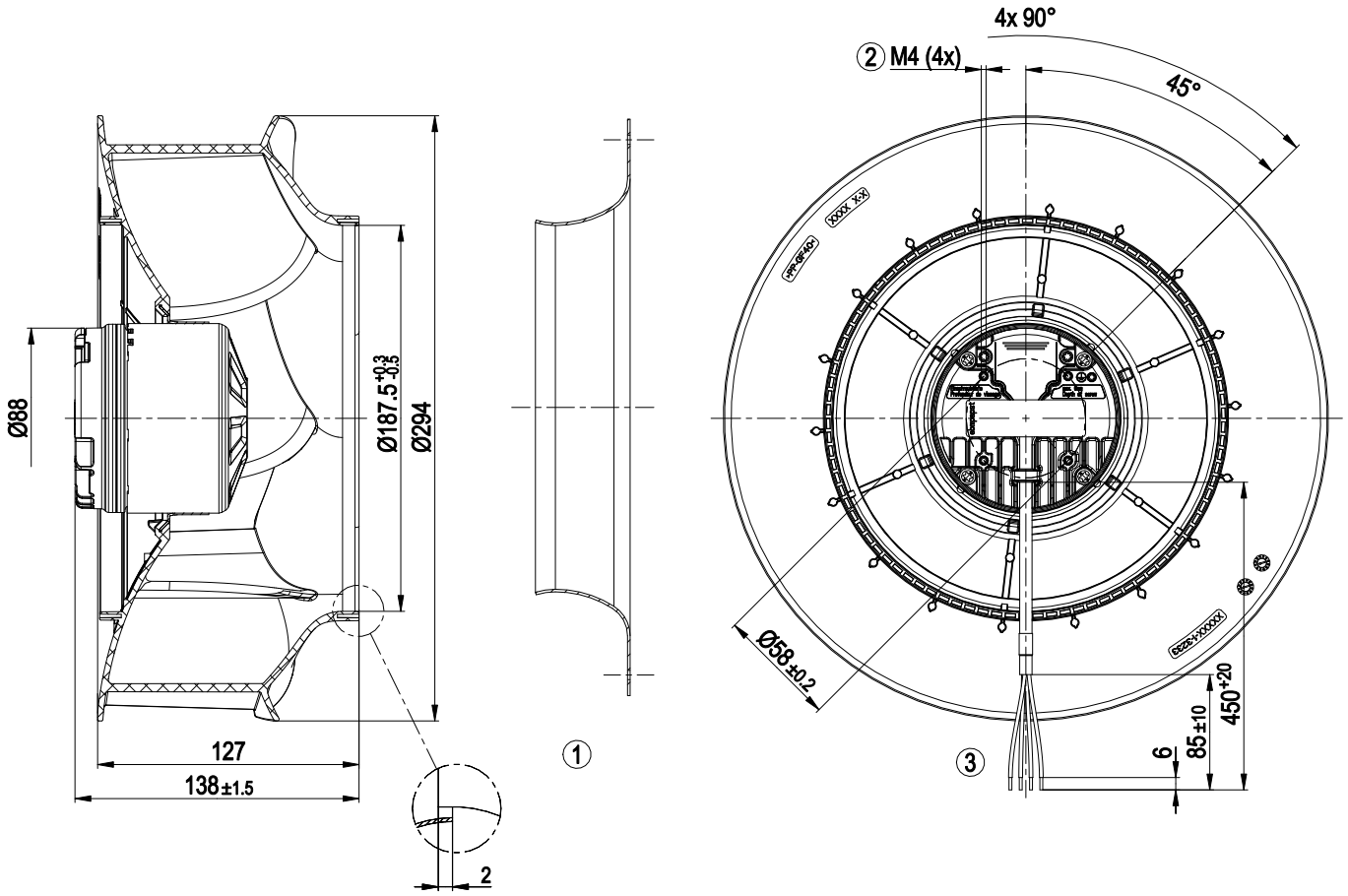
Product drawing



1	Accessory part: inlet ring 28000-2-4013 not included in scope of delivery
2	Max. clearance for screw 6 mm
3	Cable PVC 4x AWG18, insulating hose
	4x splice

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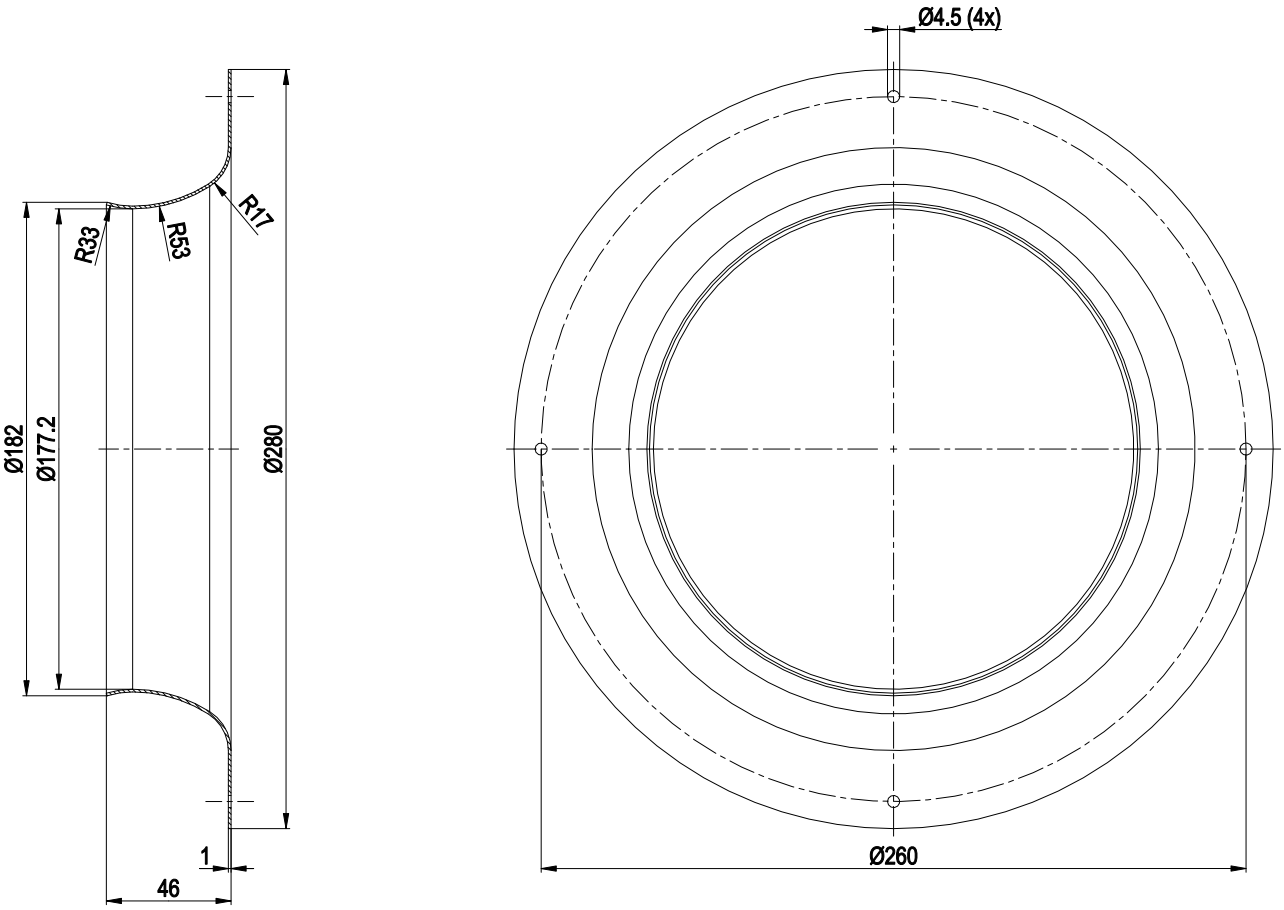
Accessory part



Inlet ring 28000-2-4013

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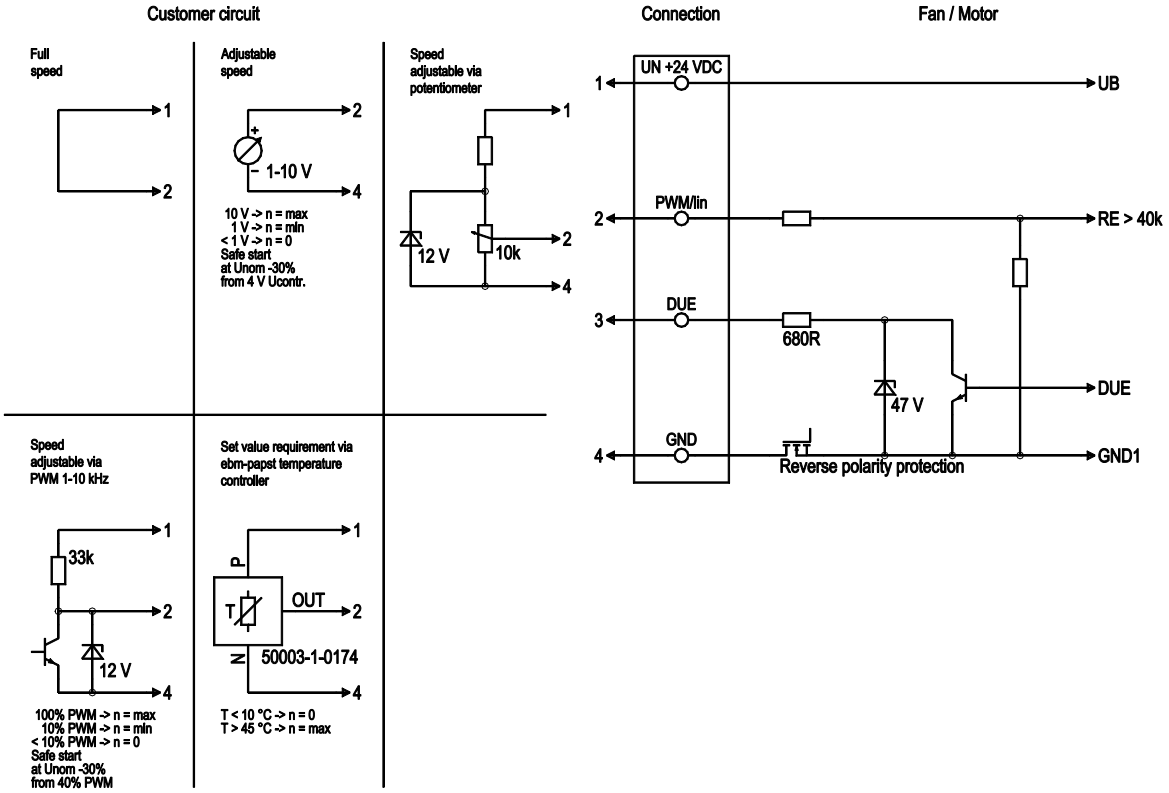
Connection diagram



No.	Conn.	Designation	Color	Function/assignment
	1	UN +24 VDC	red	Power supply 24 VDC, maximum ripple 3.5%
	2	PWM/LIN	yellow	Control input Re > 40k
	3	DUE	white	Tach output, 3 pulses per revolution, Isink max = 10 mA
	4	GND	blue	Reference ground

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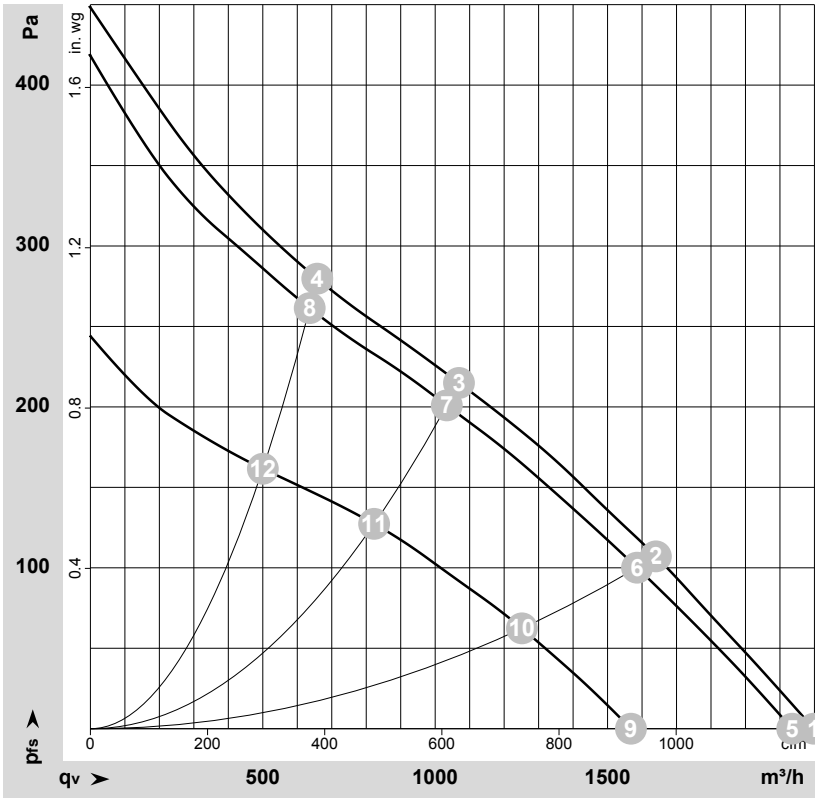
Curves: Air performance



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-184544-1
Measurement: LU-184415-1
Measurement: LU-184543-1

Air performance measured according to ISO 5801 installation category A. For detailed information on the measurement setup, contact ebm-papst. Intake sound level: Sound power level according to ISO 13347 / sound pressure level measured at 1 m distance from fan axis. The values given are valid under the specified measuring conditions and may vary due to conditions of installation. For deviations from the standard configuration, the parameters have to be checked on the installed unit.

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	in. wg
1	28	1765	117	4.18			2100	0	1235	0.00
2	28	1635	123	4.41			1640	108	965	0.43
3	28	1600	126	4.49			1070	215	630	0.86
4	28	1685	121	4.31			660	280	385	1.12
5	24	1700	105	4.40	63	70	2035	0	1200	0.00
6	24	1595	111	4.60	57	65	1585	100	935	0.40
7	24	1550	112	4.68	52	60	1035	200	610	0.80
8	24	1635	109	4.52	57	65	635	260	375	1.04
9	16	1330	50	3.12			1570	0	925	0.00
10	16	1260	55	3.45			1250	62	735	0.25
11	16	1240	57	3.54			825	127	485	0.51
12	16	1290	53	3.32			500	162	295	0.65

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