EC centrifugal fan - RadiCal

backward-curved, single-intake

R1G190-RD61-02 ebmpapst Datesheet

sales@fansco.com

www.fansco.com

Nominal data

Type	**R1G190-RD61-02**
Motor	**M1G074-BF**

Nominal voltage	VDC	12
Nominal voltage range	VDC	8 .. 16
Method of obtaining data		fa
Status		prelim.
Speed (rpm)	min^{-1}	3300
Power consumption	W	74
Current draw	A	6.4
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	70

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

EC centrifugal fan - RadiCal

backward-curved, single-intake

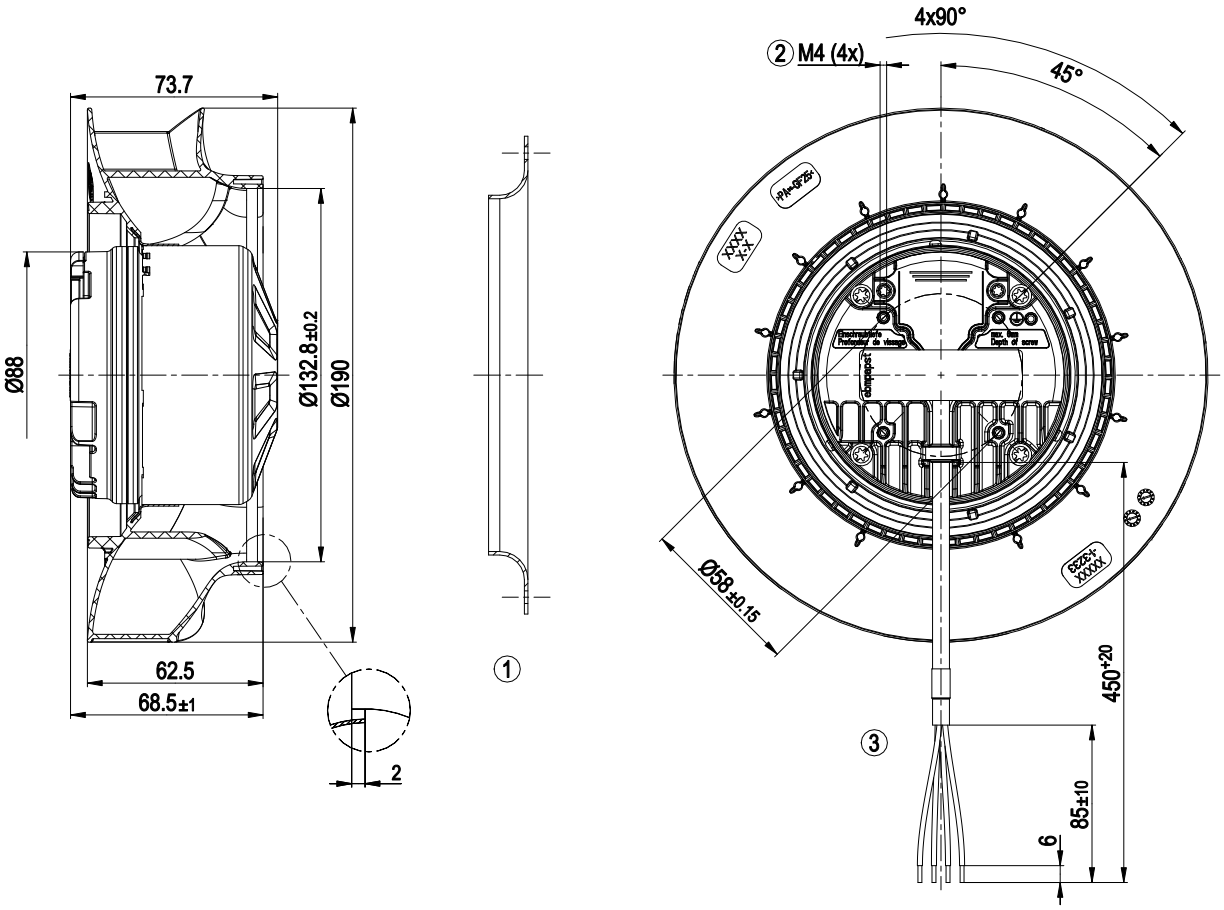
Technical description

Weight	1.45 kg
Size	190 mm
Motor size	74
Rotor surface	Galvanized
Electronics housing material	Die-cast aluminum, painted black
Impeller material	PA 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 - Reverse polarity protection
With cable	Axial
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. If there is a PE connection point on the housing, it must not be visible after installation.
Approval	CSA C22.2 No. 113; UL 507; EAC

EC centrifugal fan - RadiCal

backward-curved, single-intake

Product drawing

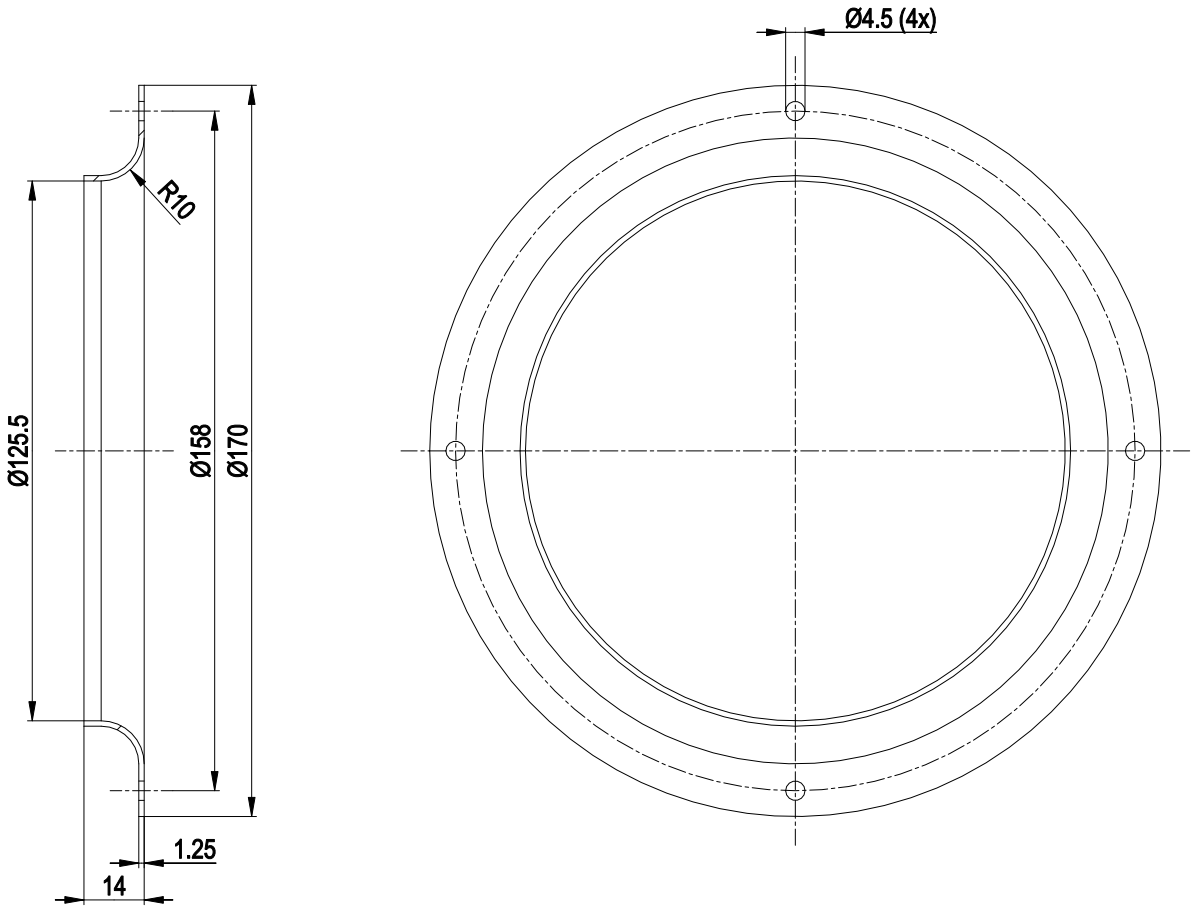


1	Accessory part: inlet ring 09576-2-4013 not included in scope of delivery
2	Max. clearance for screw 6 mm
3	Cable PVC 4x AWG18, insulating hose
	4x splice

EC centrifugal fan - RadiCal

backward-curved, single-intake

Accessory part

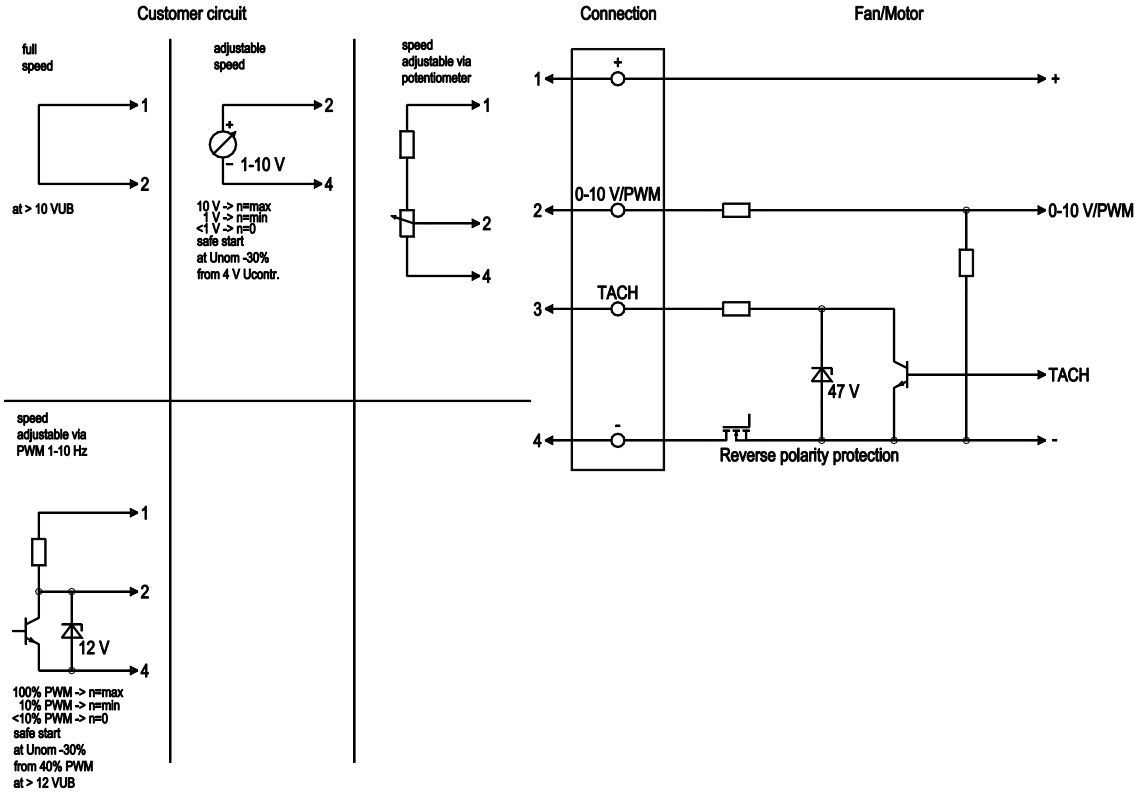


Inlet ring 09576-2-4013

EC centrifugal fan - RadiCal

backward-curved, single-intake

Connection diagram

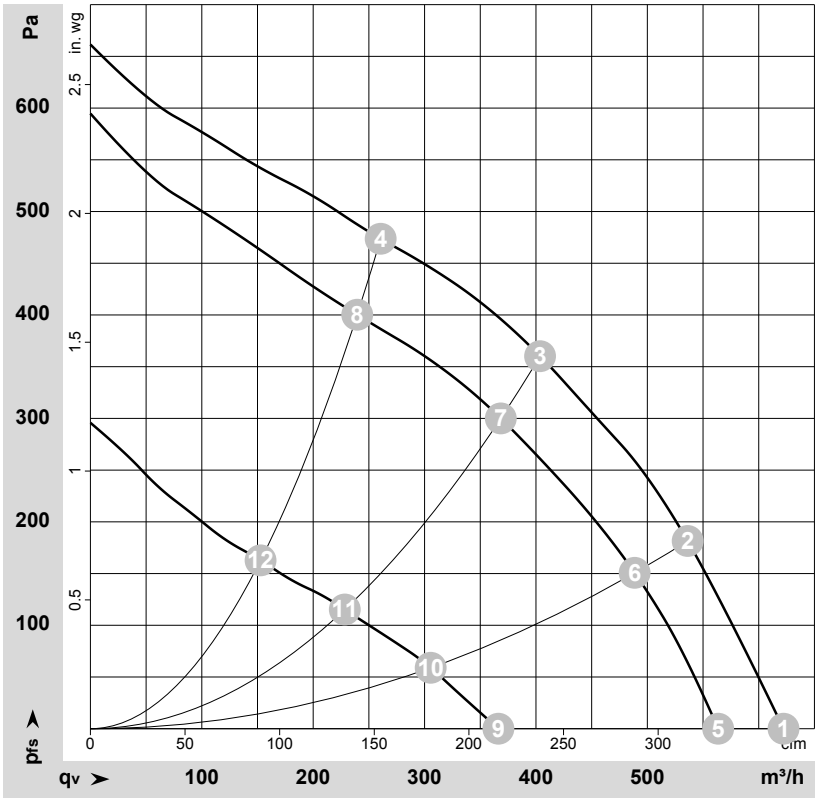


No.	Conn.	Designation	Color	Function/assignment
	1	Un +12VDC	red	Power supply 12 VDC, see nameplate for voltage range, maximum ripple 3.5%
	2	PWM/LIN	yellow	Control input Re > 40k (PWM 1-10 kHz / 0-10 V)
	3	Tacho	white	Tach output, 3 pulses per revolution, Isink max = 10 mA
	4	GND	blue	Reference ground

EC centrifugal fan - RadiCal

backward-curved, single-intake

Curves: Air performance



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-183614-1
Measurement: LU-183524-1
Measurement: LU-183628-1

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	q_V	p_{fs}	q_V	p_{fs}
	V	min^{-1}	W	A	m^3/h	Pa	cfm	in. wg
1	16	3565	89	5.72	620	0	365	0.00
2	16	3505	95	6.15	535	182	315	0.73
3	16	3470	102	6.67	405	361	240	1.45
4	16	3535	97	6.28	260	473	155	1.90
5	12	3300	74	6.40	565	0	330	0.00
6	12	3245	78	6.71	490	150	290	0.60
7	12	3175	80	7.05	370	300	215	1.20
8	12	3250	78	6.72	240	400	140	1.61
9	8	2160	27	4.50	365	0	215	0.00
10	8	2105	26	4.60	305	60	180	0.24
11	8	2005	24	4.47	230	115	135	0.46
12	8	2080	26	4.52	155	163	90	0.65

U = Voltage · n = Speed (rpm) · P_{ed} = Power consumption · I = Current draw · q_V = Air flow · p_{fs} = Pressure increase