R1G146-AA07-52

EC centrifugal fan

forward-curved, single-intake

R1G146-AA07-52 ebmpapst Datesheet

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Nominal data

Type	**R1G146-AA07-52**
Motor	**M1G074-BF**

Nominal voltage	VDC	24
Nominal voltage range	VDC	16 .. 28
Method of obtaining data		fa
Speed (rpm)	min^{-1}	2200
Power consumption	W	100
Current draw	A	5.0
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	1.35 kg
Size	146 mm
Motor size	74
Rotor surface	Painted black
Impeller material	Sheet steel, galvanized
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	IP42
Insulation class	"B"
Moisture (F) / Environmental (H) protection class	H0 - dry environment
Max. permitted ambient temp. for motor (transport/storage)	+60 °C
Min. permitted ambient temp. for motor (transport/storage)	-25 °C
Installation position	Any
Mode	S1
Motor bearing	Ball bearing
Technical features	- Tach output - Motor current limitation - Soft start - Control input 0-10 VDC / PWM - Reverse polarity protection
EMC immunity to interference	According to EN 61000-6-2 (industrial environment)
EMC interference emission	According to EN 61000-6-3 (household environment)
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. If there is a PE connection point on the housing, it must not be visible after installation.
Conformity with standards	EN 62368-1
Approval	CSA C22.2 No. 77; EAC; UL 1004-1

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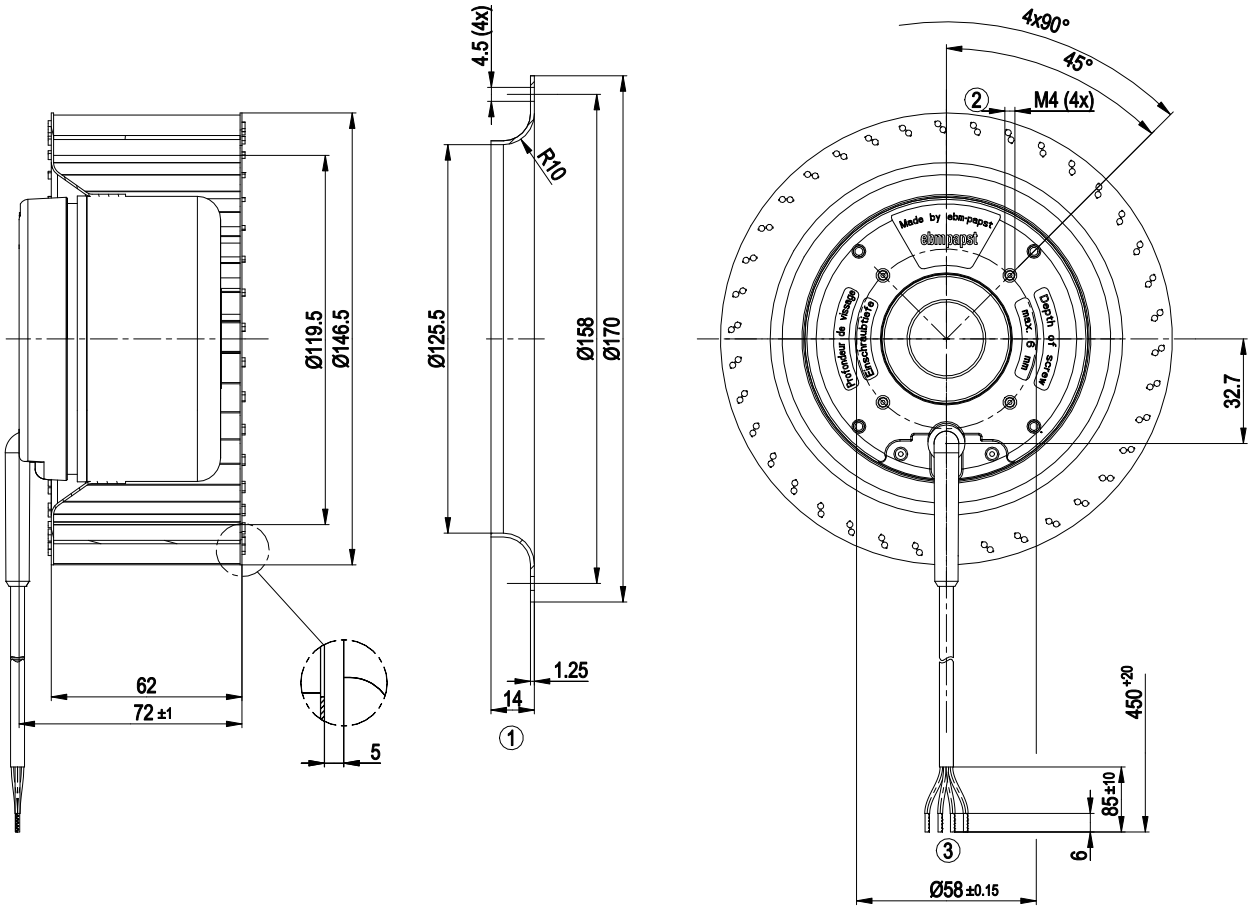
Product drawing



1	Accessory part: inlet ring 09576-2-4013 not included in scope of delivery
2	Max. clearance for screw 6 mm
3	Cable PVC AWG20, 4x crimped splices

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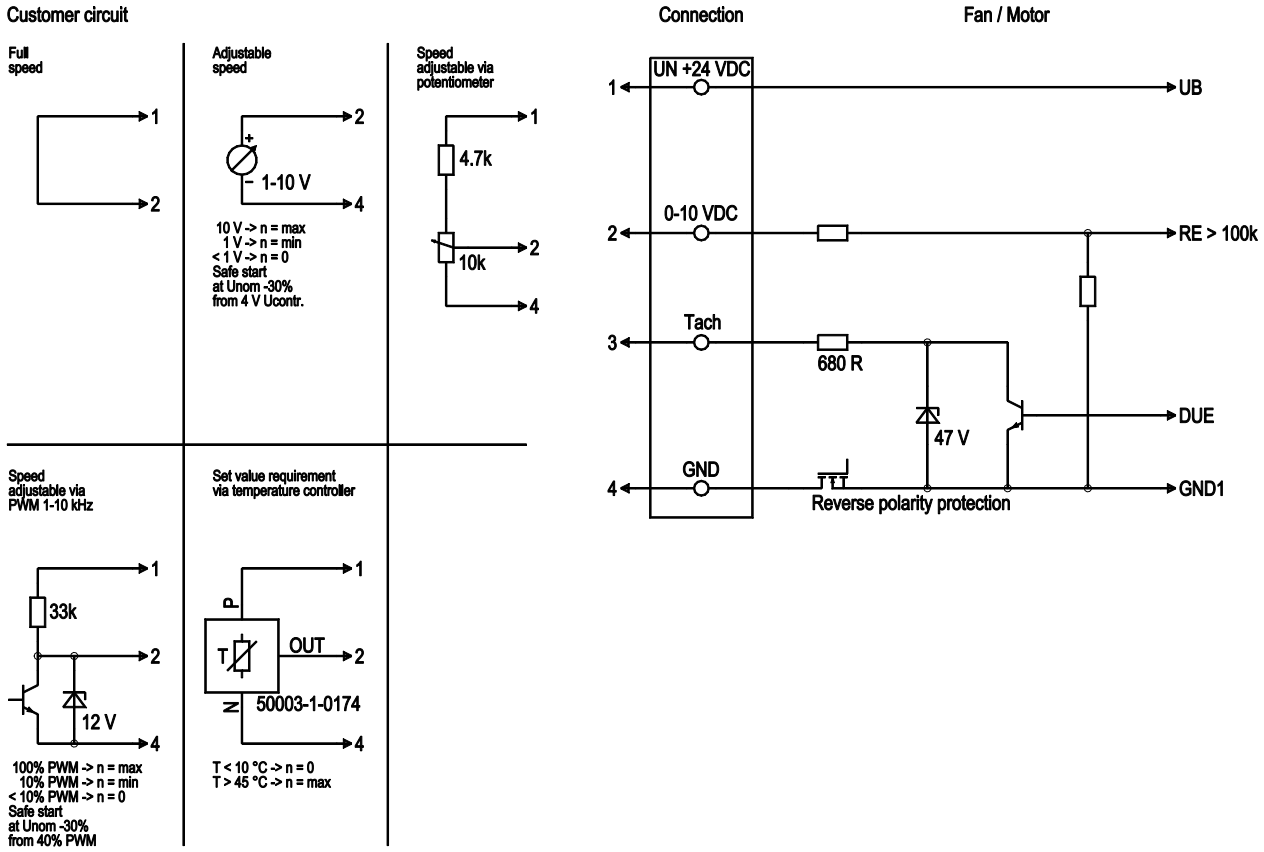
Connection diagram



No.	Conn.	Designation	Color	Function/assignment
1	1	Un +24 VDC	red	Power supply 24 VDC, maximum ripple 3.5 %
1	2	0-10 VDC	yellow	Control input Re > 100k
1	3	Tach	white	Tach output, 3 pulses per revolution, Isink max = 10 mA
1	4	GND	blue	Reference ground

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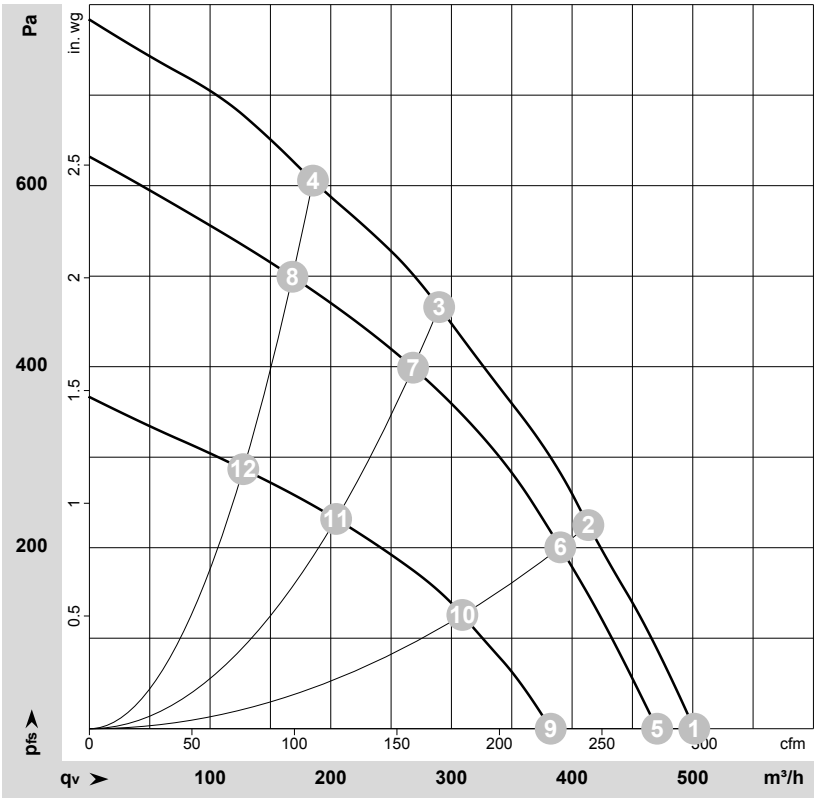
Curves: Air performance



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-49675-1
Measurement: LU-49674-1
Measurement: LU-49676-1

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	28	2350	124	5.54	500	0	295	0.00
2	28	2600	117	5.00	415	224	245	0.90
3	28	3010	109	4.42	290	466	170	1.87
4	28	3370	96	3.80	185	605	110	2.43
5	24	2200	100	5.00	470	0	275	0.00
6	24	2440	97	4.64	390	200	230	0.80
7	24	2790	86	3.99	270	400	160	1.61
8	24	3070	72	3.32	170	500	100	2.01
9	16	1810	56	3.89	380	0	225	0.00
10	16	1955	50	3.43	310	126	180	0.51
11	16	2165	40	2.83	205	232	120	0.93
12	16	2350	34	2.46	130	287	75	1.15

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