EC centrifugal fan

forward-curved, single-intake

Nominal data

Type	**R1G108-AB17-02**
Motor	**M1G055-BD**

Nominal voltage	VDC	24
Nominal voltage range	VDC	16 .. 28
Frequency	Hz	-
Method of obtaining data		fa
Speed (rpm)	min^{-1}	3000
Power consumption	W	42
Current draw	A	2.0
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	0.7 kg
Size	108 mm
Motor size	55
Rotor surface	Painted black
Impeller material	Sheet steel, galvanized
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	IP22
Insulation class	"B"
Moisture (F) / Environmental (H) protection class	H0 - dry environment
Max. permitted ambient temp. for motor (transport/storage)	+80 °C
Min. permitted ambient temp. for motor (transport/storage)	-40 °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 55022 (Class B, 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.
Approval	EAC

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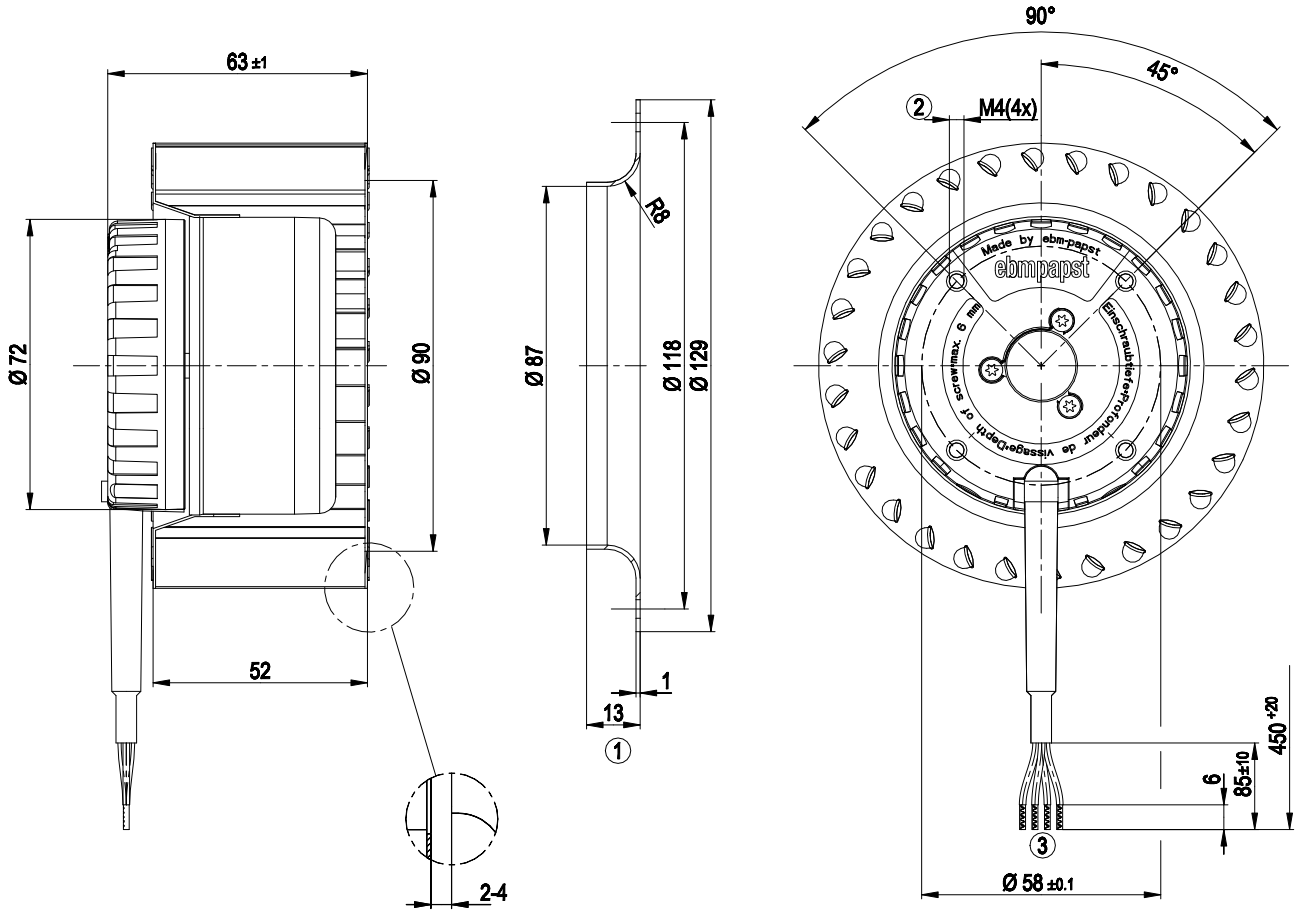
Product drawing



1	Accessory part: Inlet ring 09566-2-4013 not included in scope of delivery
2	Max. clearance for screw 6 mm
3	Cable PVC AWG20, 4x crimped splices

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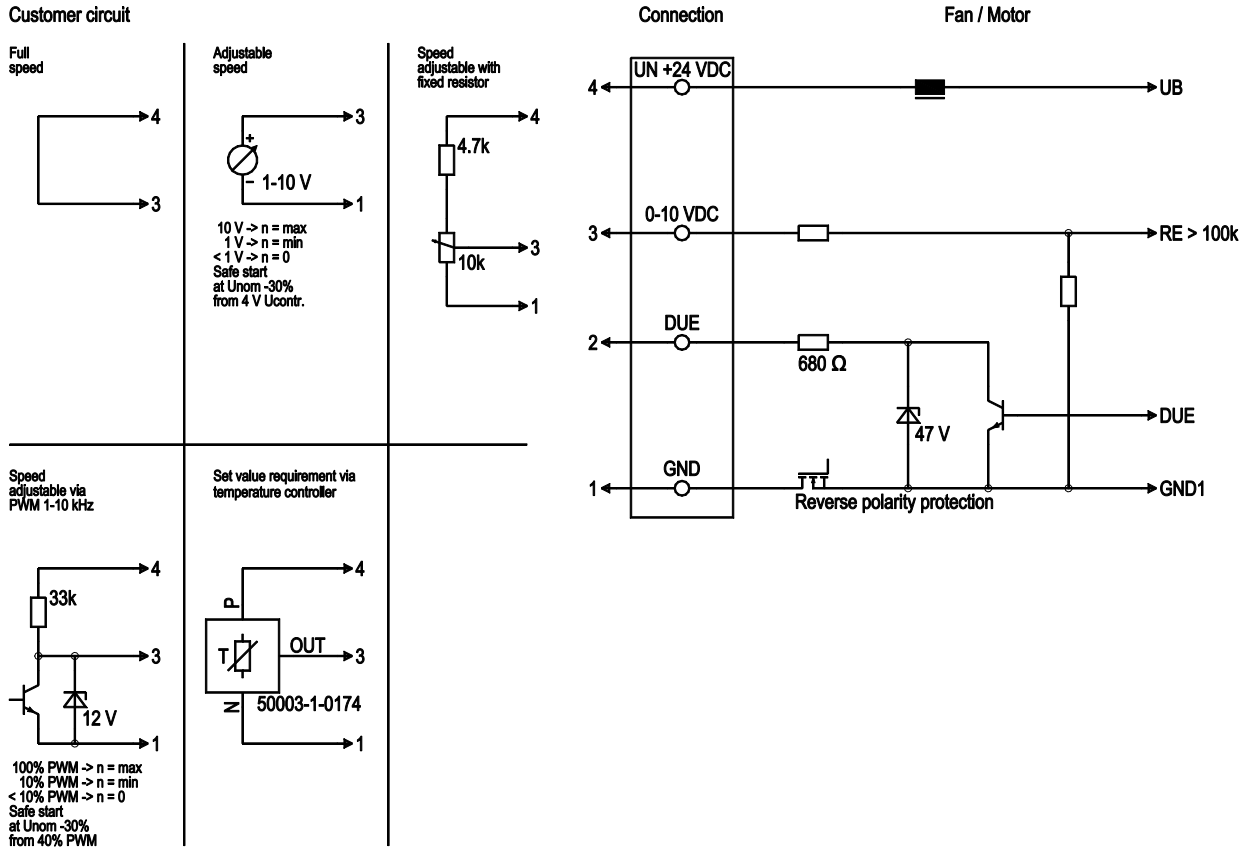
Connection diagram



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

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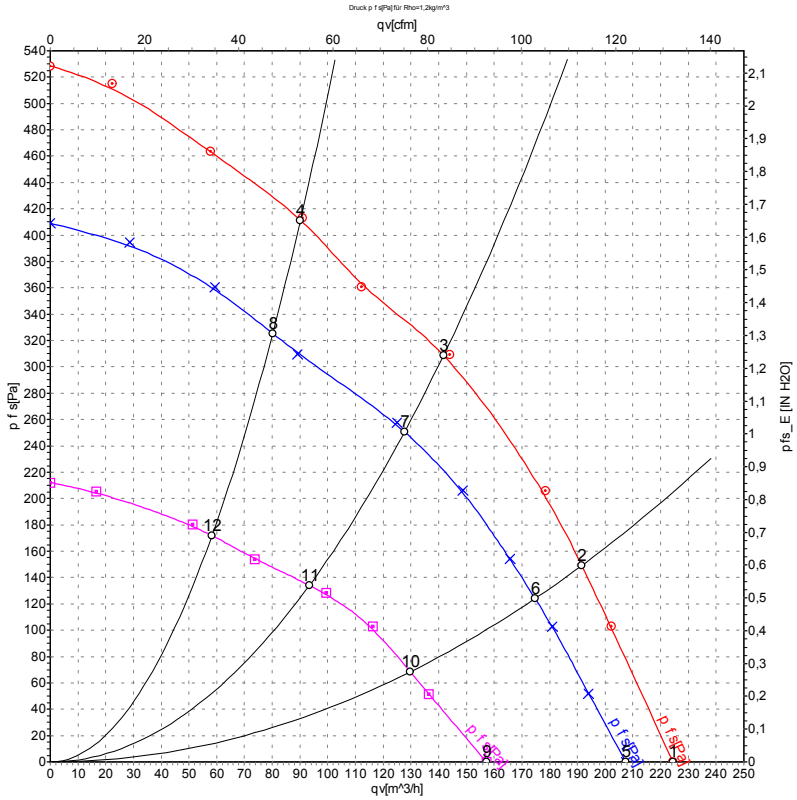
Curves: Air performance



Measurement: LU-47851-1
Measurement: LU-47850-1
Measurement: LU-47852-1

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	3235	55	2.26	225	0	130	0.00
2	28	3480	51	2.06	190	149	115	0.60
3	28	3800	44	1.76	140	313	85	1.26
4	28	4055	38	1.49	90	414	55	1.66
5	24	3000	42	2.00	205	0	120	0.00
6	24	3170	39	1.80	175	125	105	0.50
7	24	3415	33	1.50	130	250	75	1.00
8	24	3625	28	1.28	80	325	45	1.30
9	16	2290	19	1.33	155	0	90	0.00
10	16	2400	17	1.19	130	68	75	0.27
11	16	2540	14	1.00	95	134	55	0.54
12	16	2670	12	0.88	60	172	35	0.69

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