R1G175-AB63-59

EC centrifugal fan

backward-curved, single-intake

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Nominal data

Type	**R1G175-AB63-59**	
Motor	**M1G055-BD**	
Nominal voltage	VDC	24
Nominal voltage range	VDC	16 .. 28
Method of obtaining data		fa
Speed (rpm)	min^{-1}	3100
Power consumption	W	34
Current draw	A	1.6
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	0.85 kg
Size	175 mm
Motor size	55
Rotor surface	Painted black
Impeller material	PA 6.6 plastic, glass-fiber reinforced, sheet-metal plate painted black
Number of blades	7
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	IP44
Insulation class	"B"
Moisture (F) / Environmental (H) protection class	F4-2
Max. permitted ambient temp. for motor (transport/storage)	+80 °C
Min. permitted ambient temp. for motor (transport/storage)	-40 °C
Installation position	Any
Condensation drainage holes	None
Mode	S1
Motor mounting	Ball bearing
Technical features	- Control input 0-10 VDC / PWM - Tach output - Soft start
EMC immunity to interference	According to EN 61000-6-2
EMC interference emission	According to EN 61000-6-3
Motor protection	Reverse polarity and locked-rotor protection
With cable	Variable

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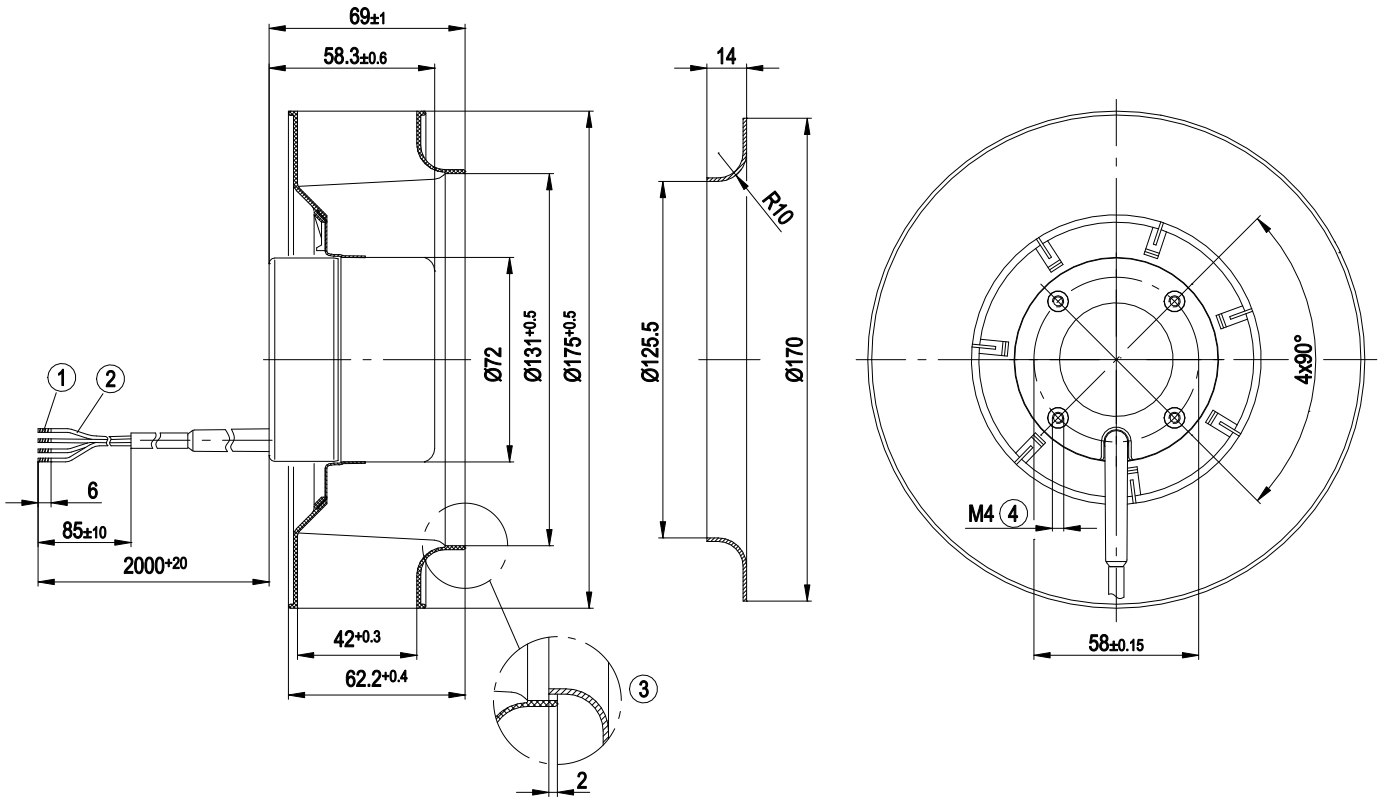
Product drawing



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

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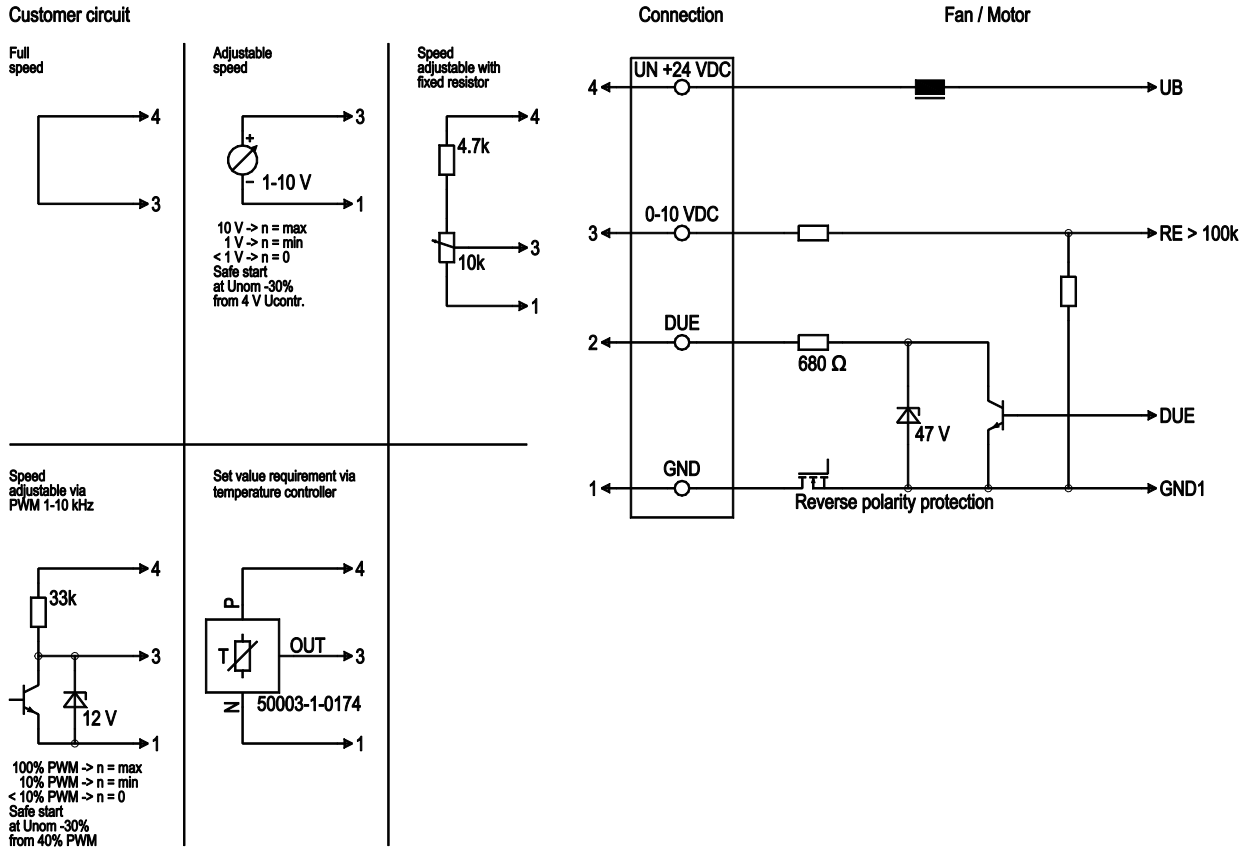
Connection diagram



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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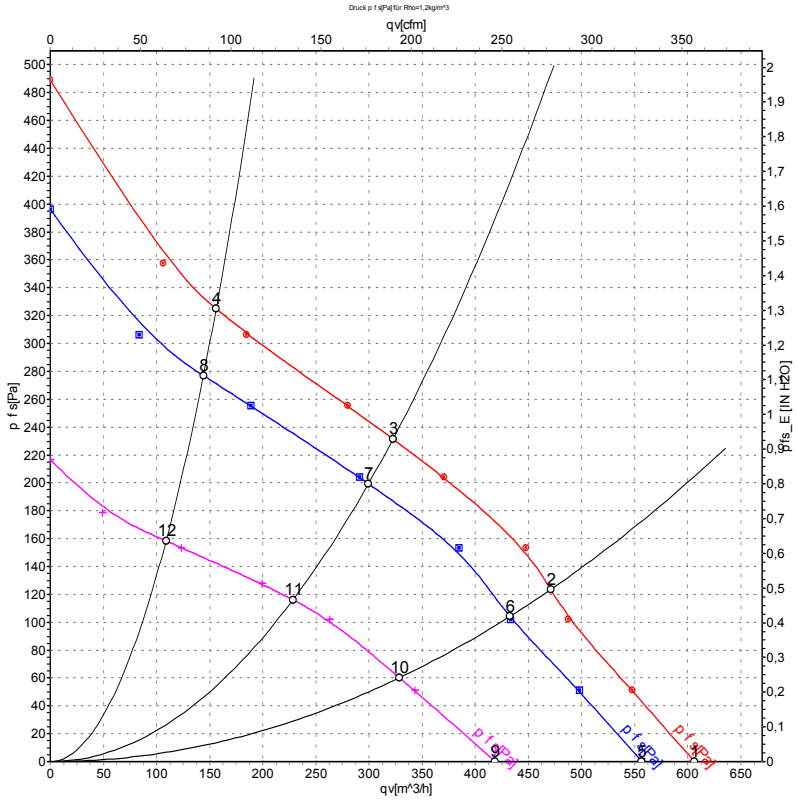
Curves: Air performance



Measurement: LU-44776-1
Measurement: LU-44775-1
Measurement: LU-44777-1

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	3375	46	1.83	605	0	355	0.00
2	28	3170	48	1.97	470	123	275	0.49
3	28	3105	49	2.01	325	231	190	0.93
4	28	3255	47	1.91	155	325	90	1.30
5	24	3100	34	1.60	555	0	330	0.00
6	24	2915	39	1.79	435	100	255	0.40
7	24	2885	39	1.82	300	200	175	0.80
8	24	3010	37	1.69	145	275	85	1.10
9	16	2320	16	1.10	420	0	245	0.00
10	16	2225	17	1.21	330	60	195	0.24
11	16	2205	18	1.24	230	116	135	0.47
12	16	2270	16	1.15	110	158	65	0.63

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

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