R1G175-AB15-65

EC centrifugal fan

backward-curved, single-intake



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Nominal data

Type	**R1G175-AB15-65**	
Motor	**M1G055-BD**	
Nominal voltage	VDC	48
Method of obtaining data		fa
Speed (rpm)	min^{-1}	3150
Power consumption	W	37
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

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Technical description

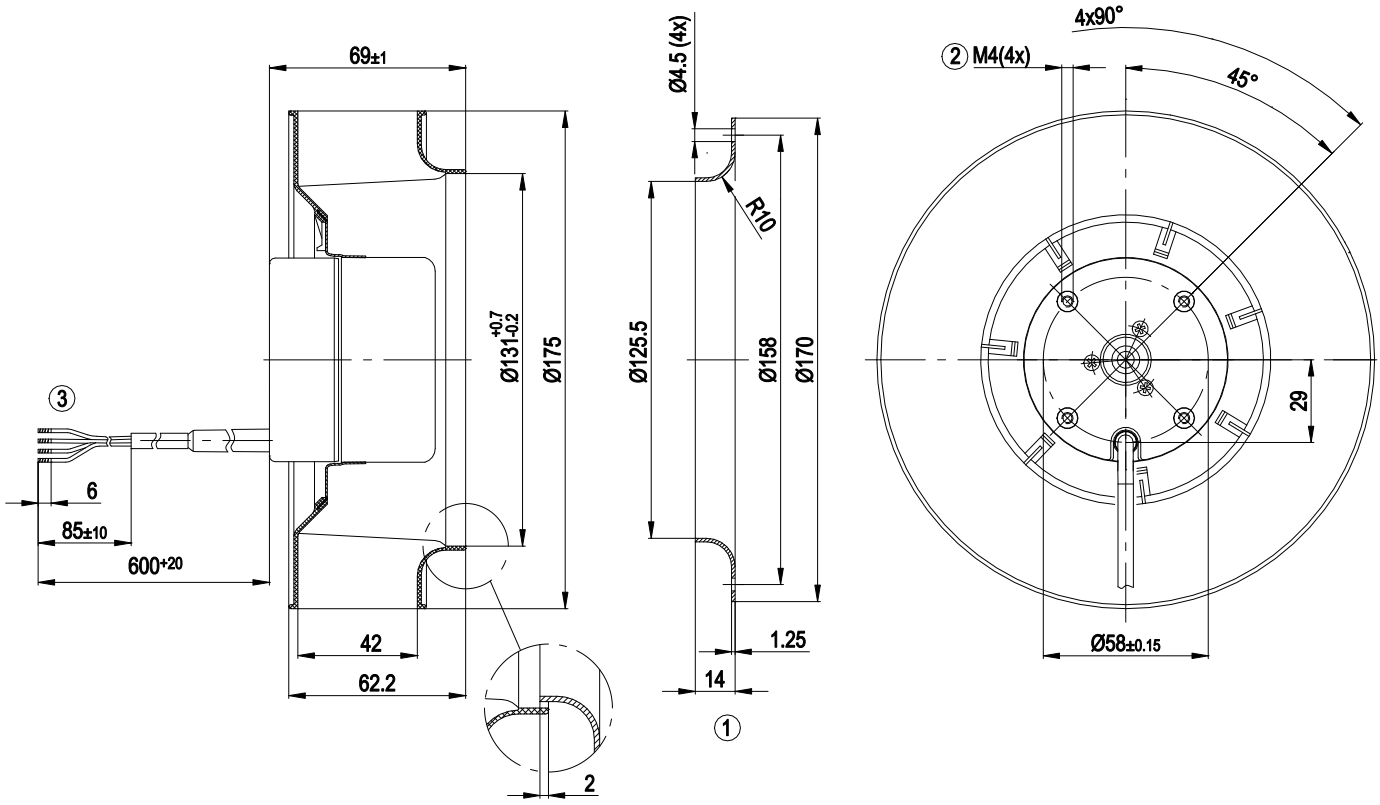
Weight	0.8 kg
Fan size	175 mm
Rotor surface	Painted black
Impeller material	PA plastic, sheet-metal plate painted black
Number of blades	7
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	IP44
Insulation class	"B"
Moisture (F) / Environmental (H) protection class	F4-2
Max. permitted 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 bearing	Ball bearing
Motor protection	Reverse polarity and locked-rotor protection
With cable	Variable
Protection class	I (with customer connection of protective earth)
Conformity with standards	EN 60950-1
Approval	UL 1004-1

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Product drawing



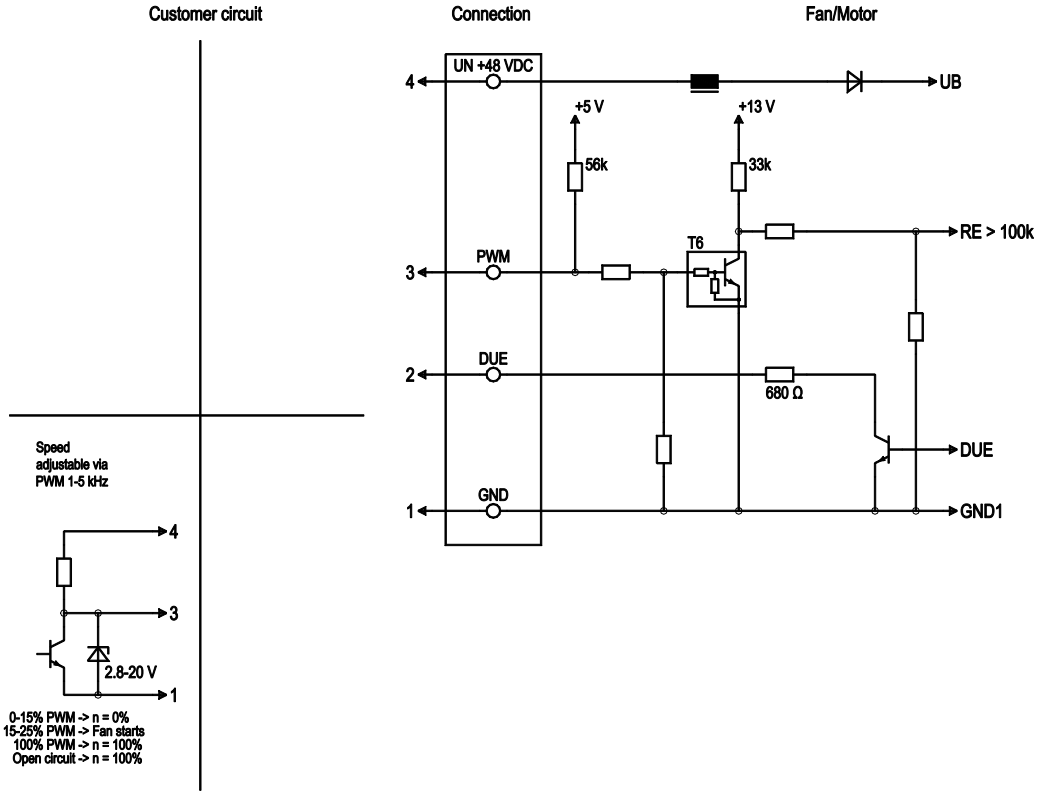
1	Accessory part: inlet ring 09576-2-4013 not included in scope of delivery
2	Max. clearance for screw 6 mm
3	Cable AWG20, 4x crimped splices

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Connection diagram



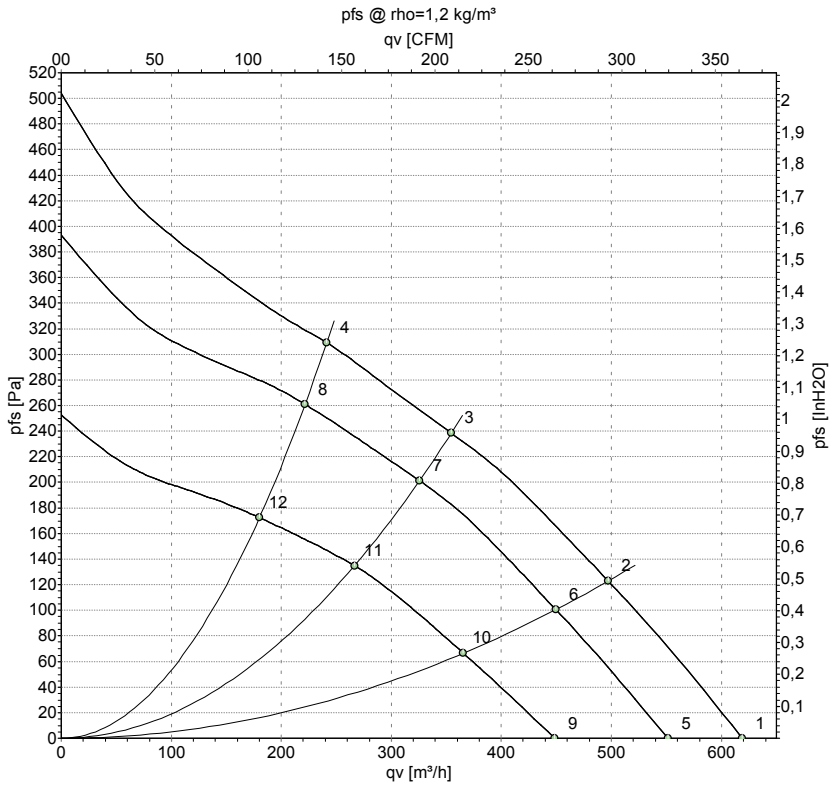
No.	Conn.	Designation	Color	Function/assignment
	1	GND	blue	Reference ground
	2	DUE	white	Tach output, 2 pulses per revolution, Isink max = 10 mA
	3	PWM	black	Control input PWM, 1-5 kHz, 2.8-20 V
	4	UN +48 VDC	red	Power supply 48 VDC, see nameplate for voltage range, maximum ripple 3.5%

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Curves: Air performance



Measurement: LU-123691-1
Measurement: LU-123690-1
Measurement: LU-123693-1

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}	qv	p_{fs}	qv	p_{fs}
	V	min^{-1}	W	A	dB(A)	dB(A)	m^3/h	Pa	CFM	inH2O
1	57	3550	50	0.98			620	0	365	0.00
2	57	3350	52	1.04			495	123	295	0.49
3	57	3220	54	1.09			355	239	210	0.96
4	57	3250	54	1.08			240	310	140	1.24
5	48	3150	37	0.85	64	72	550	0	325	0.00
6	48	3045	40	0.93	60	68	450	100	265	0.40
7	48	2970	42	0.97	57	65	325	200	190	0.80
8	48	2975	42	0.96	62	70	220	260	130	1.04
9	36	2560	20	0.62			450	0	265	0.00
10	36	2485	23	0.70			365	66	215	0.26
11	36	2430	24	0.73			265	135	155	0.54
12	36	2455	23	0.72			180	172	105	0.69

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

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