R3G175-AF01-15

EC centrifugal fan

backward curved, single inlet



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Nominal data

Type	**R3G175-AF01-15**
Motor	**M3G055-CF**

Phase		1~
Nominal voltage	VAC	230
Frequency	Hz	50/60
Type of data definition		fa
Speed (rpm)	min^{-1}	4070
Power input	W	78
Current draw	A	0.6
Min. ambient temperature	°C	-30
Max. ambient temperature	°C	60

ml = Max. load · me = Max. efficiency · fa = Running at free air · cs = Customer specs · cu = Customer unit
Subject to alterations

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Technical features

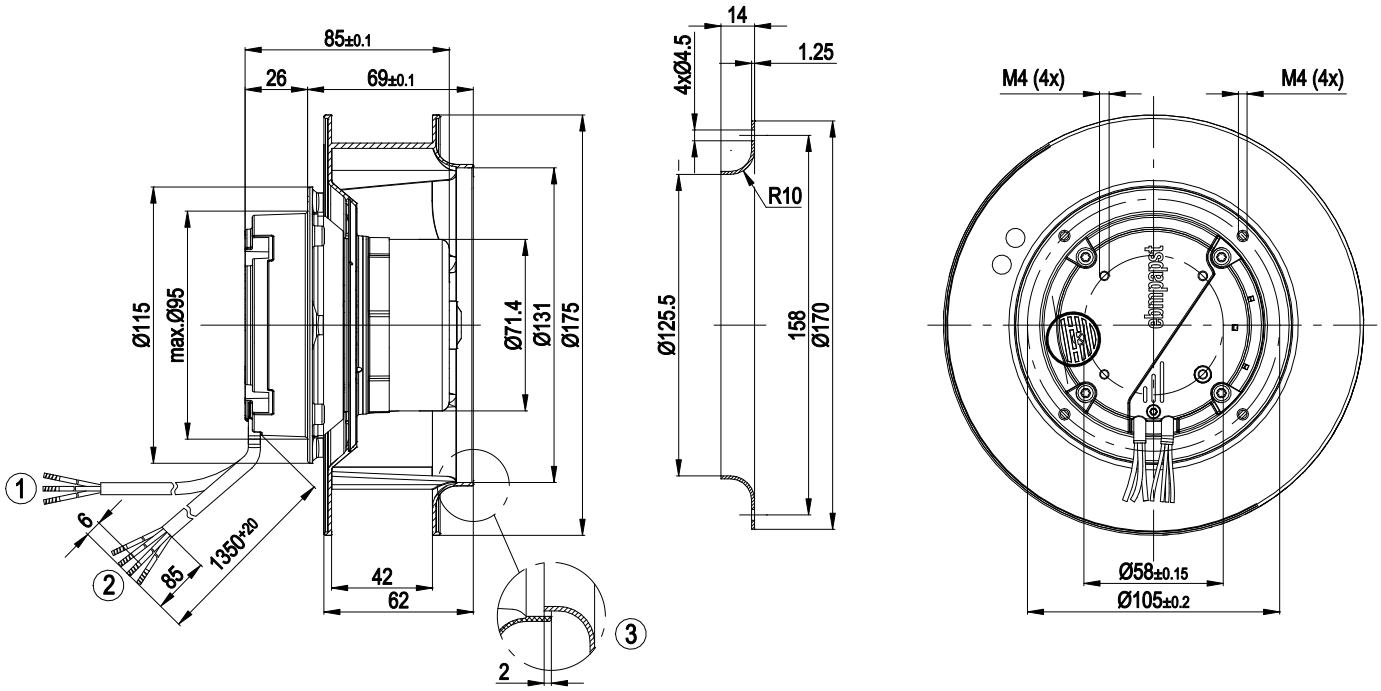
Mass	1.3 kg
Size	175 mm
Surface of rotor	Thick layer passivated
Material of electronics housing	Die-cast aluminium
Material of impeller	PA plastic
Number of blades	7
Direction of rotation	Clockwise, seen on rotor
Type of protection	IP 44
Insulation class	"B"
Humidity (F)/environmental protection class (H)	F3-1
Max. permissible ambient motor temp. (transp./ storage)	+ 80 °C
Min. permissible ambient motor temp. (transp./storage)	- 40 °C
Mounting position	Any
Condensate discharge holes	Rotor-side
Operation mode	S1
Motor bearing	Ball bearing
Technical features	- Output 10 VDC, max. 1.1 mA - Tach output - Motor current limit - Soft start - Control input 0-10 VDC / PWM - Control interface with SELV potential safely disconnected from the mains - Over-temperature protected motor
EMC interference immunity	Acc. to EN 61000-6-2 (industrial environment)
EMC harmonics	Acc. to EN 61000-3-2/3
EMC interference emission	Acc. to EN 61000-6-3 (household environment)
Touch current acc. IEC 60990 (measuring network Fig. 4, TN system)	<= 3.5 mA
Motor protection	Thermal overload protector (TOP) wired internally
Cable exit	Variable
Protection class	I (if protective earth is connected by customer)
Product conforming to standard	EN 60335-1
Approval	EAC

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Product drawing



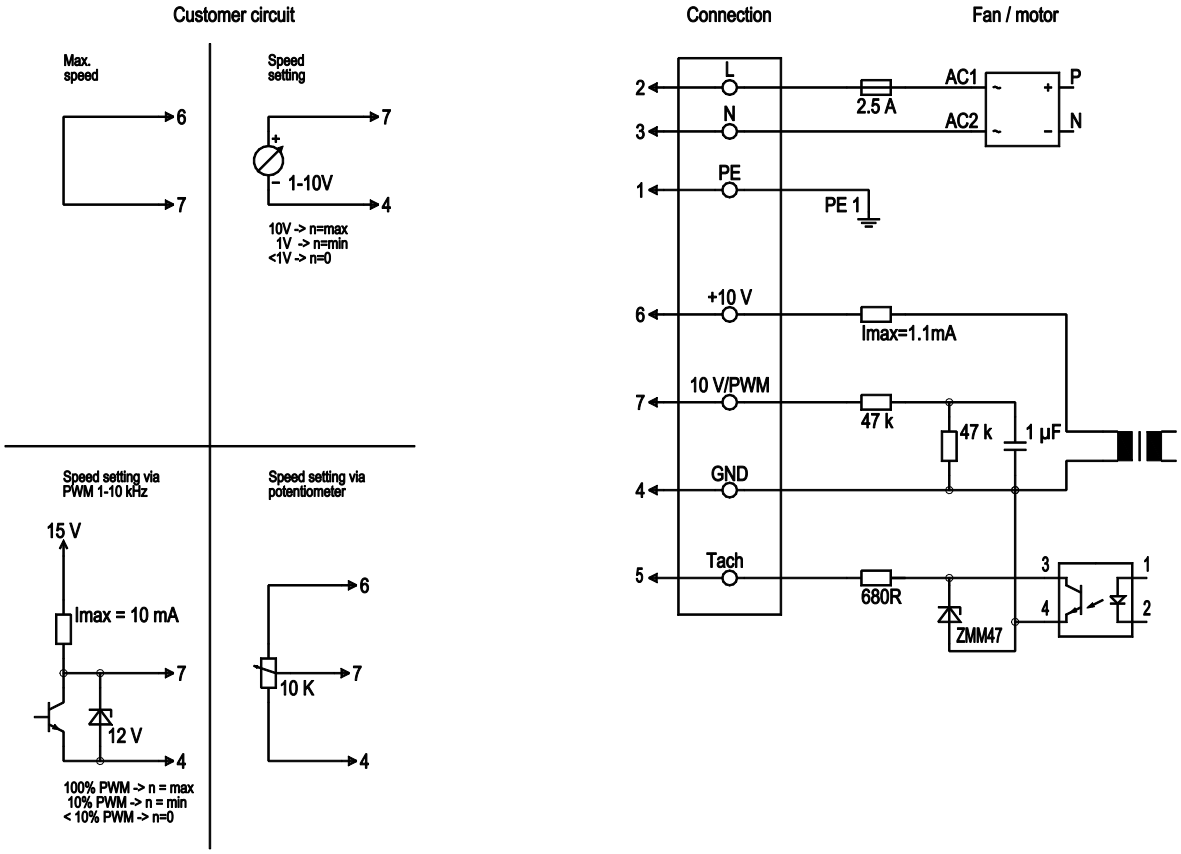
1	Connection line VDE, 3x brass lead tips crimped
2	Connection line VDE, 4x brass lead tips crimped
3	Accessory part: Inlet nozzle 09576-2-4013 (not included in the standard scope of delivery)

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Connection screen



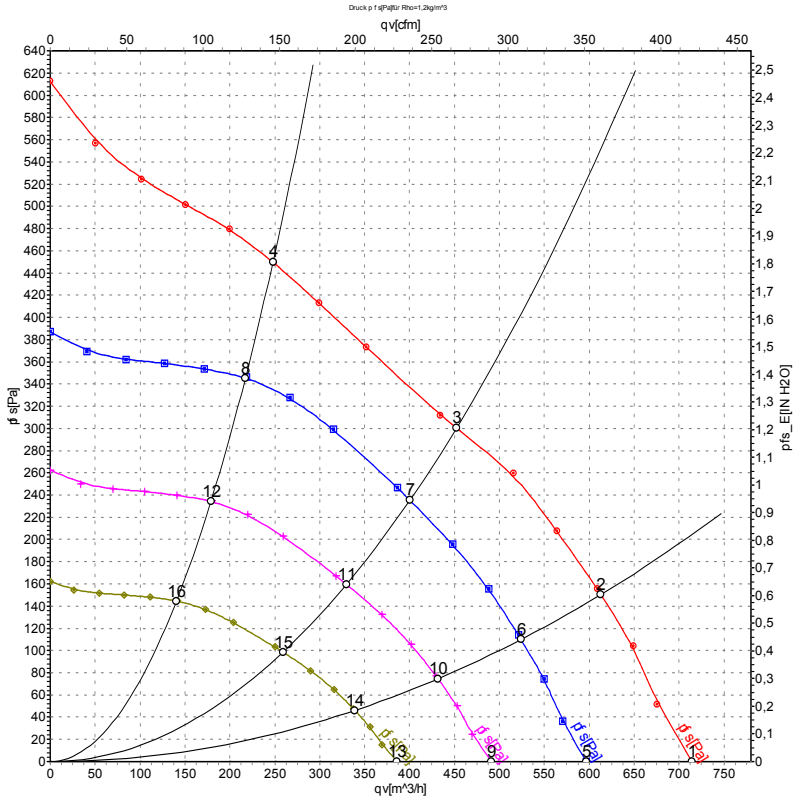
No.	Conn.	Designation	Colour	Function / assignment
	2	L	brown	Power supply 230 VAC, 50-60 Hz, see type plate for voltage range
	3	N	blue	Neutral conductor
	1	PE	green/yellow	Protective earth
	7	0-10 V PWM	yellow	Control input 0 - 10 V or PWM, electrically isolated
	5	Tach	white	Tach output: Open Collector, 1 pulse per revolution, electrically isolated
	6	10V / max. 1.1 mA	red	Voltage output 10V / 1.1mA, electrically isolated, not short-circuit-proof
	4	GND	blue	GND - Connection for control interface

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Charts: Air flow 50 Hz



Measurement: LU-70125-1

Air performance measured as per ISO 5801 Installation category A. For detailed information on the measuring set-up, please contact ebm-papst. Suction-side noise levels: LwA measured as per ISO 13347 / LpA measured with 1m distance to fan axis. The values given are valid under the measuring conditions mentioned above and may vary according to the actual installation situation. With any deviation from the standard set-up, the specific values have to be checked and reviewed with the unit installed.

Measured values

	U	f	n	P_{ed}	I	q_V	p_{fs}	q_V	p_{fs}
	V	Hz	min^{-1}	W	A	m^3/h	Pa	cfm	inH2O
1	230	50	4070	78	0.60	715	0	420	0.00
2	230	50	3975	83	0.63	615	150	360	0.60
3	230	50	3840	86	0.65	450	300	265	1.20
4	230	50	3875	85	0.65	250	450	145	1.81
5	230	50	3400	45	0.34	595	0	350	0.00
6	230	50	3400	52	0.39	525	110	310	0.44
7	230	50	3400	59	0.45	400	236	235	0.95
8	230	50	3400	57	0.44	215	346	130	1.39
9	230	50	2800	25	0.19	490	0	290	0.00
10	230	50	2800	29	0.22	430	75	255	0.30
11	230	50	2800	33	0.25	330	160	195	0.64
12	230	50	2800	32	0.24	180	235	105	0.94
13	230	50	2200	12	0.09	385	0	225	0.00
14	230	50	2200	14	0.11	340	46	200	0.18
15	230	50	2200	16	0.12	260	99	150	0.40
16	230	50	2200	16	0.12	140	145	85	0.58

U = Supply voltage · f = Frequency · n = Speed (rpm) · P_{ed} = Power input · I = Current draw · q_V = Air flow · p_{fs} = Pressure increase

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