

R3G175-AF19-02

# EC centrifugal fan

backward curved, single inlet



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## Nominal data

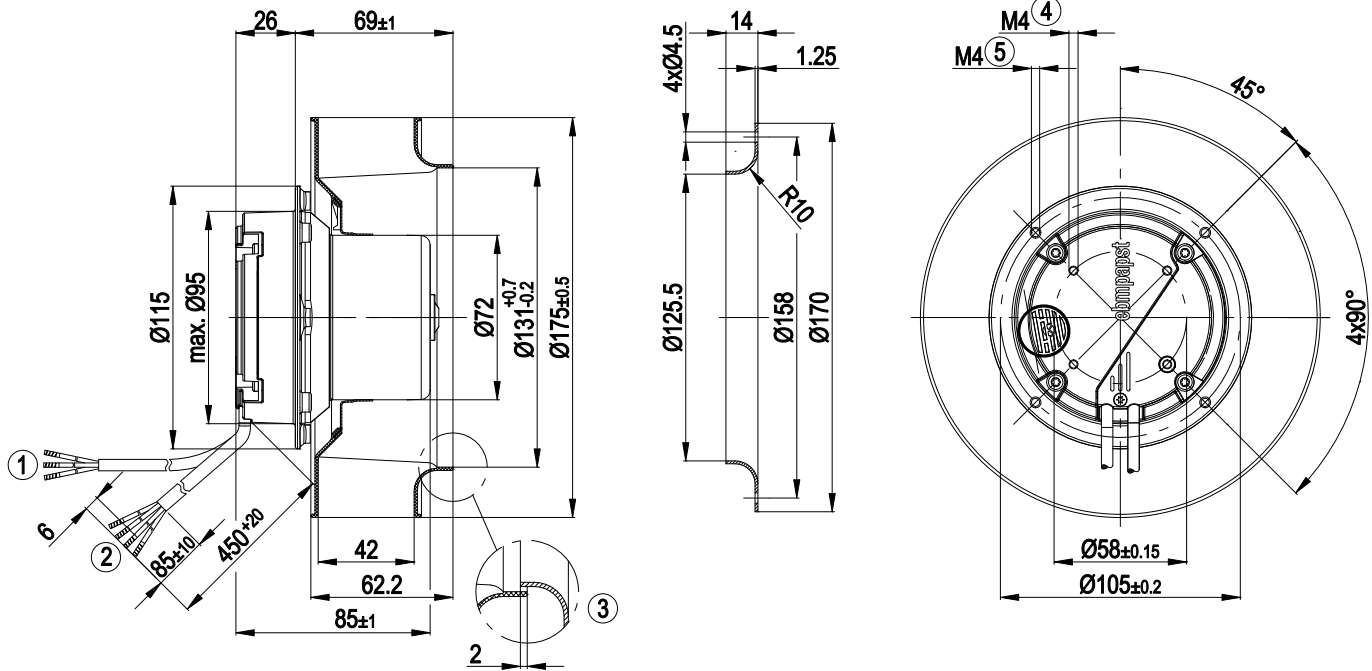
Type	R3G175-AF19-02	
Motor	M3G055-CF	
Phase		1~
Nominal voltage	[VAC]	230
Frequency	[Hz]	50/60
Type of data definition		ml
Speed	[min <sup>-1</sup> ]	4500
Power input	[W]	104
Current draw	[A]	0.8
Min. ambient temperature	[°C]	-25
Max. ambient temperature	[°C]	60

ml = max. load · me = max. efficiency · rfa = running at free air · cs = customer specs · cu = customer unit  
Subject to alterations

### Technical features

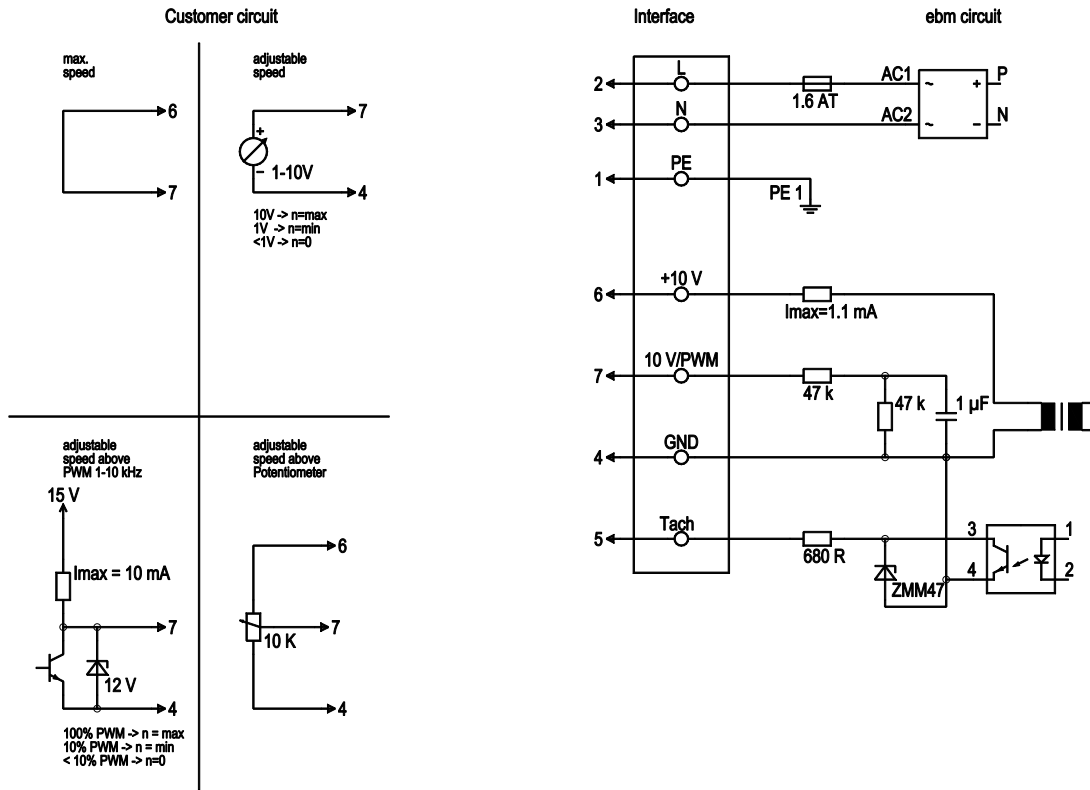
Leakage current	<= 3.5 mA
General description	Integrated electronics
Size	175 mm
Operation mode	S1
Direction of rotation	Clockwise, seen on rotor
Mounting position	Any
EMC harmonics	Acc. to EN 61000-3-2/3
EMC interference emission	Acc. to EN 61000-6-3
EMC interference immunity	Acc. to EN 61000-6-2
Insulation class	"B"
Cable exit	Variable
Condensate discharge holes	Rotor-side
Bearing motor	Ball bearing
Mass	1.23 kg
Material of electronics housing	Die-cast aluminium
Material of impeller	Plastic PA66, fibreglass-reinforced
Motor protection	Thermal overload protector (TOP) wired internally
Product conforming to standard	EN 60335-1
Surface of rotor	Thick layer passivated
Number of blades	7
Type of protection	IP 44
Protection class	I
Technical features	- Control input 0-10 VDC / PWM - Output 10 VDC max. 1.1 mA - Tach output
Max. permissible ambient motor temp. (transp./ storage)	+80 °C
Min. permissible ambient motor temp. (transp./storage)	-40 °C

## Product drawing



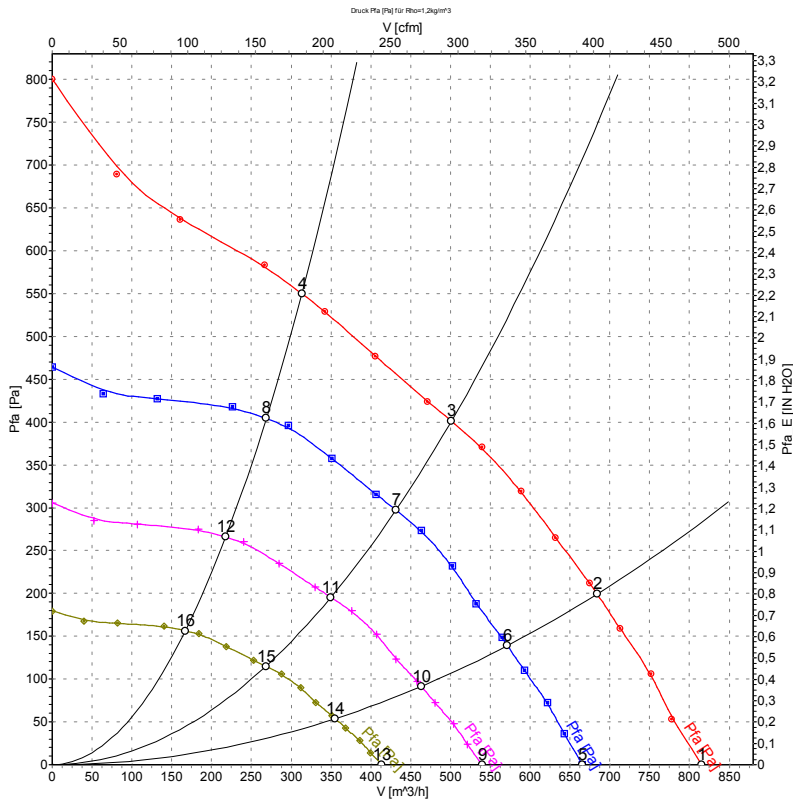
1	Connection line H03VV-F3G0.5, 3 x brass lead tips crimped
2	Connection line A03VV-F4x0.25, 4 x brass lead tips crimped
3	Accessory part: Inlet nozzle 09576-2-4013, not included in the standard scope of delivery
4	Depth of screw max. 6 mm
5	Depth of screw max. 6 mm

## Connection screen



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

## Charts: Air flow 50 Hz



## Measured values

	U	f	n	P <sub>1</sub>	I	Ŷ	P <sub>fa</sub>
	[V]	[Hz]	[min <sup>-1</sup> ]	[W]	[A]	[m <sup>3</sup> /h]	[Pa]
1	230	50	4535	104	0.80	815	0
2	230	50	4430	112	0.84	685	200
3	230	50	4295	119	0.89	500	400
4	230	50	4315	120	0.89	315	550
5	230	50	3700	56	0.42	665	0
6	230	50	3700	65	0.49	570	139
7	230	50	3700	76	0.57	430	297
8	230	50	3700	76	0.56	270	405
9	230	50	3000	30	0.22	540	0
10	230	50	3000	35	0.26	465	92
11	230	50	3000	41	0.30	350	196
12	230	50	3000	40	0.30	220	266
13	230	50	2300	14	0.10	415	0
14	230	50	2300	16	0.12	355	54
15	230	50	2300	18	0.14	270	115
16	230	50	2300	18	0.13	165	156