R3G175-AF25-16

EC centrifugal fan

backward curved

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Nominal data

Type	**R3G175-AF25-16**
Motor	**M3G055-CF**

Phase		1~
Nominal voltage	VAC	115
Nominal voltage range	VAC	100 .. 130
Frequency	Hz	50/60
Type of data definition		ml
Speed (rpm)	min^{-1}	3750
Power input	W	84
Current draw	A	1.2
Min. ambient temperature	°C	-25
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

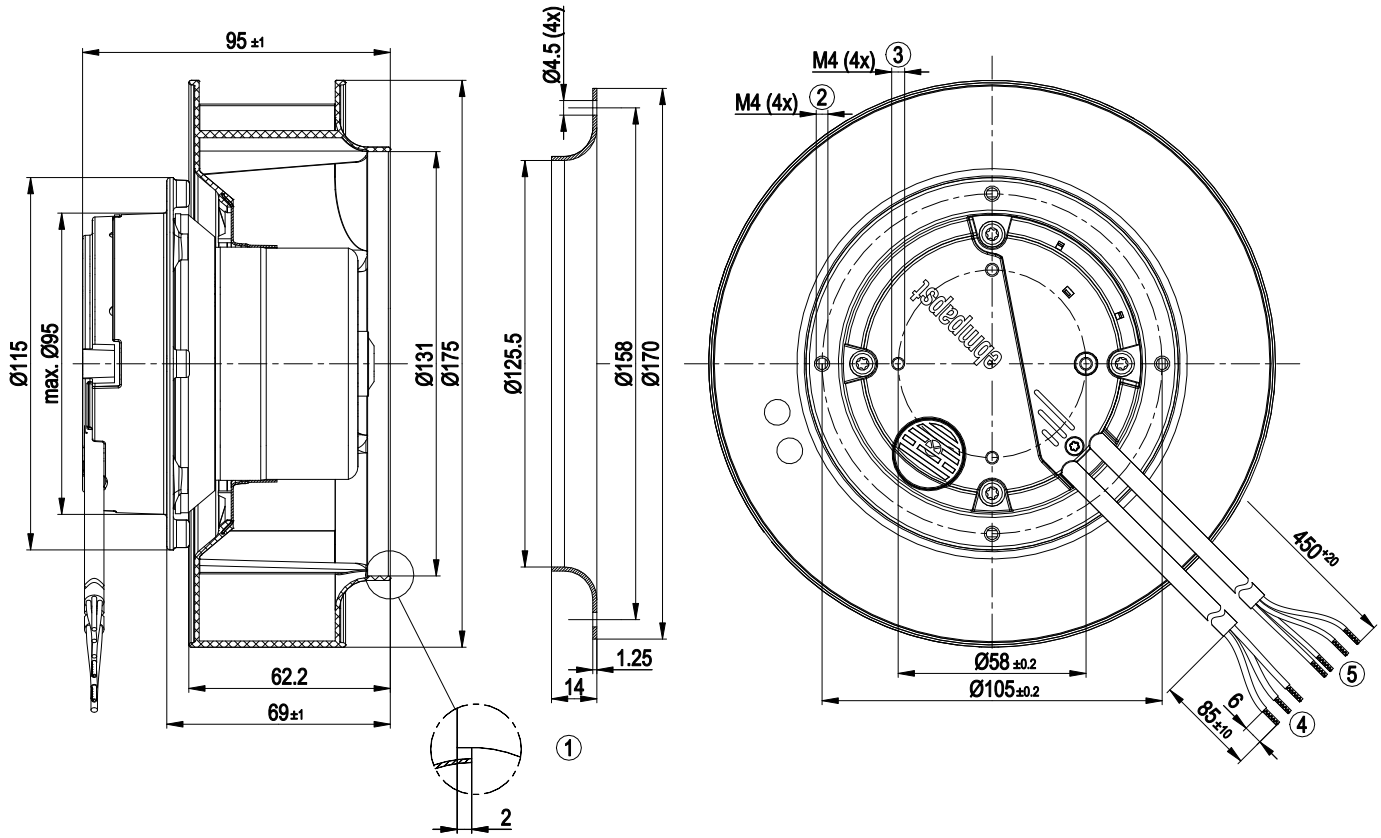
Mass	1.3 kg
Size	175 mm
Surface of rotor	Thick layer passivated
Material of electronics housing	Die-cast aluminium
Material of impeller	PA plastic
Number of blades	7
Direction of rotation	Clockwise, seen on rotor
Type of protection	IP 44
Insulation class	"B"
Humidity (F)/environmental protection class (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
Touch current acc. IEC 60990 (measuring network Fig. 4, TN system)	<= 3.5 mA
Motor protection	Thermal overload protector (TOP) wired internally
Protection class	I (if protective earth is connected by customer)
Product conforming to standard	EN 60335-1
Approval	CSA C22.2 No.77; EAC; UL 2111

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Product drawing



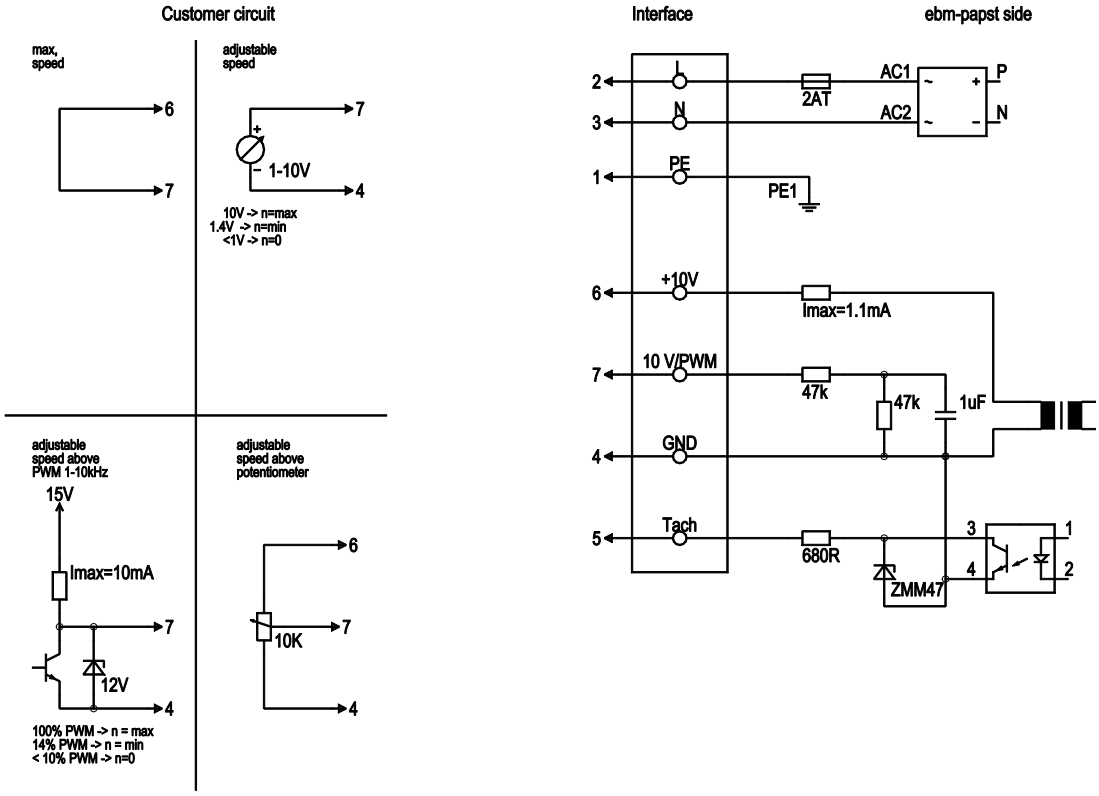
1	Connection line H03VV-F3G0.5, 3 x brass lead tips crimped
2	Connection line A03VV-F4x0.25, 4 x brass lead tips crimped
3	Accessory part: Inlet nozzle 09576-2-4013, not included in the standard scope of delivery
4	Depth of screw max. 6 mm
5	Depth of screw max. 6 mm

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Connection screen



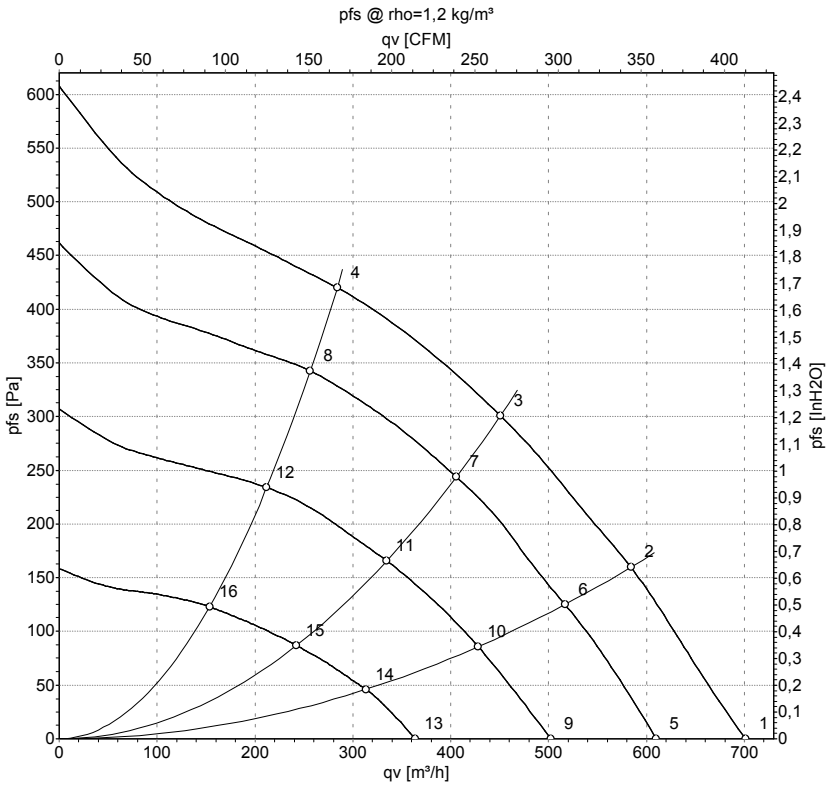
No.	Conn.	Designation	Colour	Function / assignment
	1	PE	green/yellow	Protective earth
	2	L	brown	Power supply 115 VAC, 50-60 Hz, see type plate for voltage range
	3	N	blue	Neutral conductor
	4	GND	blue	GND - Connection for control interface
	5	Tach	white	Tach output: open collector, 1 pulse per revolution, electrically isolated
	6	10V/ max. 1,1mA	red	Voltage output 10 V/ 1.1 mA, electrically isolated
	7	0-10V PWM	yellow	Control input 0 - 10 V or PWM, electrically isolated

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Charts: Air flow 50 Hz



Measurement: LU-109322-1
Measurement: LU-109330-1
Measurement: LU-109331-1
Measurement: LU-109333-1

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	qv	p_{fs}	qv	p_{fs}
	V	Hz	min^{-1}	W	A	m^3/h	Pa	CFM	inH2O
1	115	50	3960	70	1.01	700	0	415	0.00
2	115	50	3865	75	1.10	585	160	345	0.64
3	115	50	3750	84	1.20	450	300	265	1.20
4	115	50	3800	83	1.20	285	420	165	1.69
5	115	50	3520	51	0.74	610	0	360	0.00
6	115	50	3485	57	0.84	515	125	305	0.50
7	115	50	3425	62	0.91	405	244	240	0.98
8	115	50	3440	62	0.90	255	343	150	1.38
9	115	50	2905	31	0.46	505	0	295	0.00
10	115	50	2875	35	0.53	430	86	250	0.35
11	115	50	2840	37	0.54	335	166	195	0.67
12	115	50	2870	38	0.56	210	234	125	0.94
13	115	50	2105	14	0.23	365	0	215	0.00
14	115	50	2090	16	0.25	315	46	185	0.18
15	115	50	2070	17	0.27	240	87	140	0.35
16	115	50	2070	17	0.27	155	123	90	0.49

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

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