R3G190-AB15-02

EC centrifugal fan

backward-curved, single-intake



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Nominal data

Type	**R3G190-AB15-02**
Motor	**M3G055-CF**

Phase		1~
Nominal voltage	VAC	115
Frequency	Hz	50/60
Method of obtaining data		fa
Speed (rpm)	min^{-1}	3300
Power consumption	W	73
Current draw	A	1.1
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

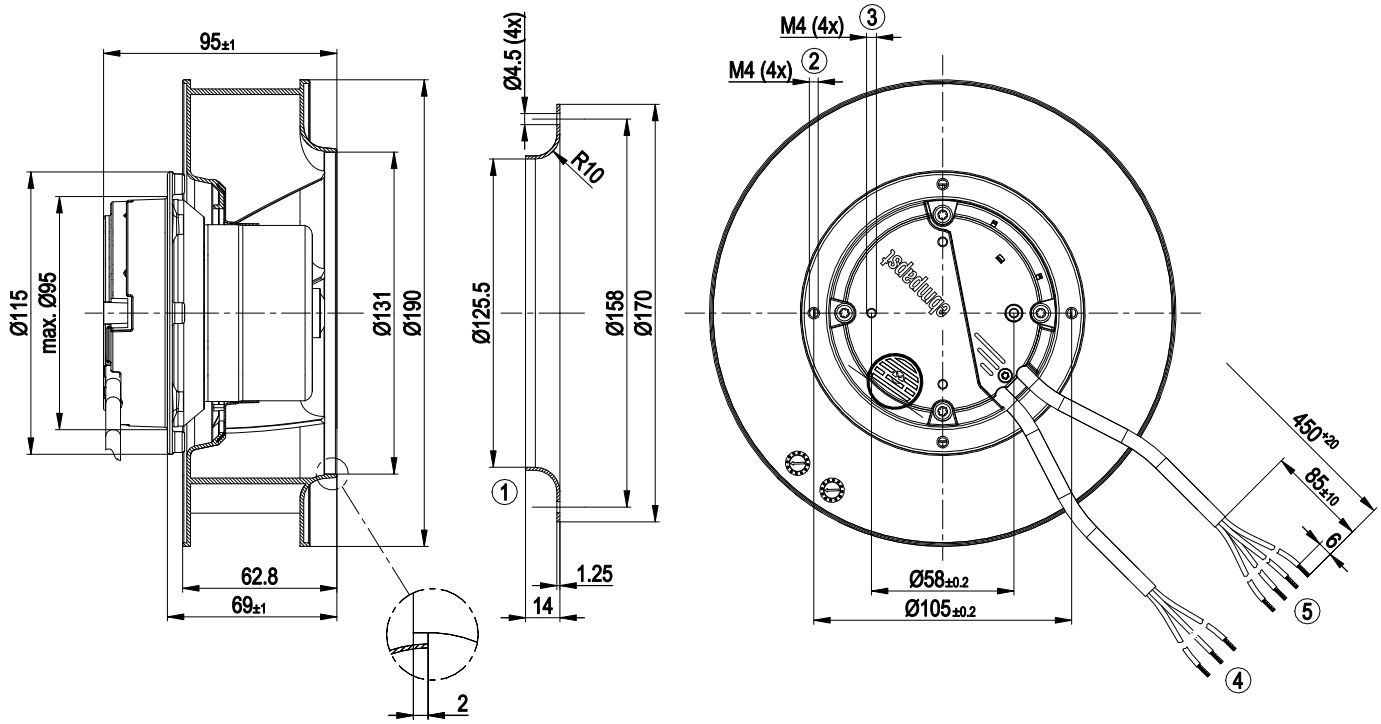
Weight	1.3 kg
Fan size	190 mm
Rotor surface	Thick-film passivated
Impeller material	PA plastic
Number of blades	7
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	IP44
Insulation class	"B"
Moisture (F) / Environmental (H) protection class	F3-1
Max. permitted ambient temp. for motor (transport/storage)	+ 80 °C
Min. permitted ambient temp. for motor (transport/storage)	- 40 °C
Installation position	Any
Condensation drainage holes	On rotor side
Mode	S1
Motor bearing	Ball bearing
Technical features	- Output 10 VDC, max. 1.1 mA - Tach output - Motor current limitation - Soft start - Set value input Lin 0-10 VDC / PWM (1.7 V corresponds to V=min, 10 V corresponds to V=max) - Control interface with SELV potential safely disconnected from supply - Thermal overload protection for motor
Touch current according to IEC 60990 (measuring circuit Fig. 4, TN system)	<= 3.5 mA
Motor protection	Thermal overload protector (TOP) internally connected
With cable	Variable
Protection class	I (with customer connection of protective earth)
Approval	UL 2111

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Product drawing



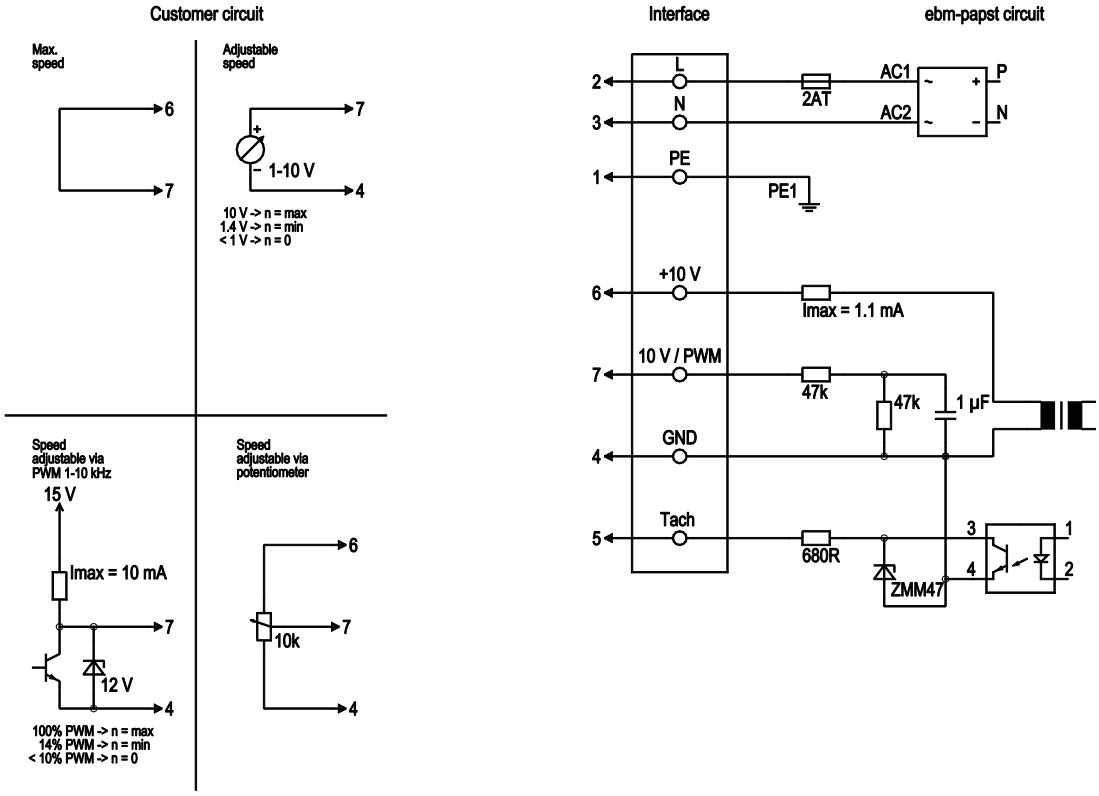
1	Accessory part: inlet ring 09576-2-4013 not included in scope of delivery
2	Max. clearance for screw 6 mm
3	Max. clearance for screw 6 mm
4	Cable PVC 3G AWG20, 3x crimped splices
5	Cable PVC 4x AWG22, 4x crimped splices

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Connection diagram



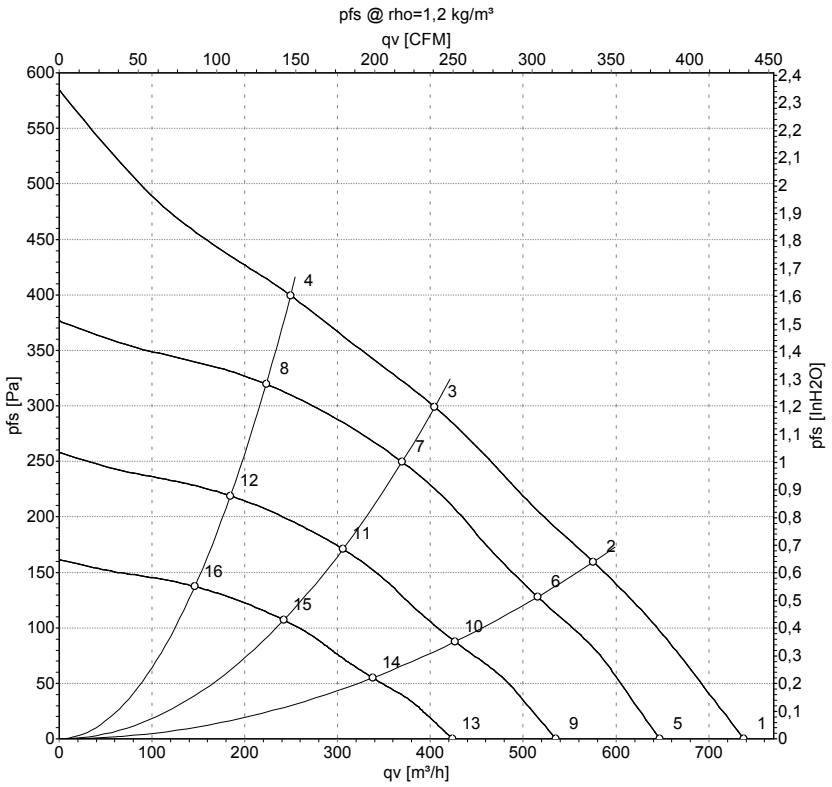
No.	Conn.	Designation	Color	Function/assignment
	1	PE	green/yellow	Protective earth
	2	L	brown	Power supply 115 VAC, 50-60 Hz, see nameplate for voltage range
	3	N	blue	Neutral conductor
	4	GND	blue	GND connection for control interface
	5	Tach	white	Tach output: open collector, 1 pulse per revolution,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

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Curves: Air performance 50 Hz



Measurement: LU-72378-1

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	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	3300	73	1.10	740	0	435	0.00
2	115	50	3245	81	1.18	575	160	340	0.64
3	115	50	3150	85	1.20	405	300	240	1.20
4	115	50	3240	81	1.16	250	400	145	1.61
5	115	50	2900	49	0.71	645	0	380	0.00
6	115	50	2900	58	0.84	515	127	305	0.51
7	115	50	2900	65	0.94	370	250	220	1.00
8	115	50	2900	58	0.83	225	321	130	1.29
9	115	50	2400	28	0.40	535	0	315	0.00
10	115	50	2400	33	0.48	425	87	250	0.35
11	115	50	2400	37	0.53	305	171	180	0.69
12	115	50	2400	33	0.47	185	220	110	0.88
13	115	50	1900	14	0.20	425	0	250	0.00
14	115	50	1900	16	0.24	340	55	200	0.22
15	115	50	1900	18	0.27	240	107	140	0.43
16	115	50	1900	16	0.23	145	138	85	0.55

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

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