R3G220-AD11-02

EC centrifugal fan

backward-curved, single-intake

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Nominal data

Type	**R3G220-AD11-02**
Motor	**M3G055-CF**

Phase		1~
Nominal voltage	VAC	230
Frequency	Hz	50/60
Method of obtaining data		fa
Speed (rpm)	min^{-1}	2700
Power consumption	W	62
Current draw	A	0.5
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

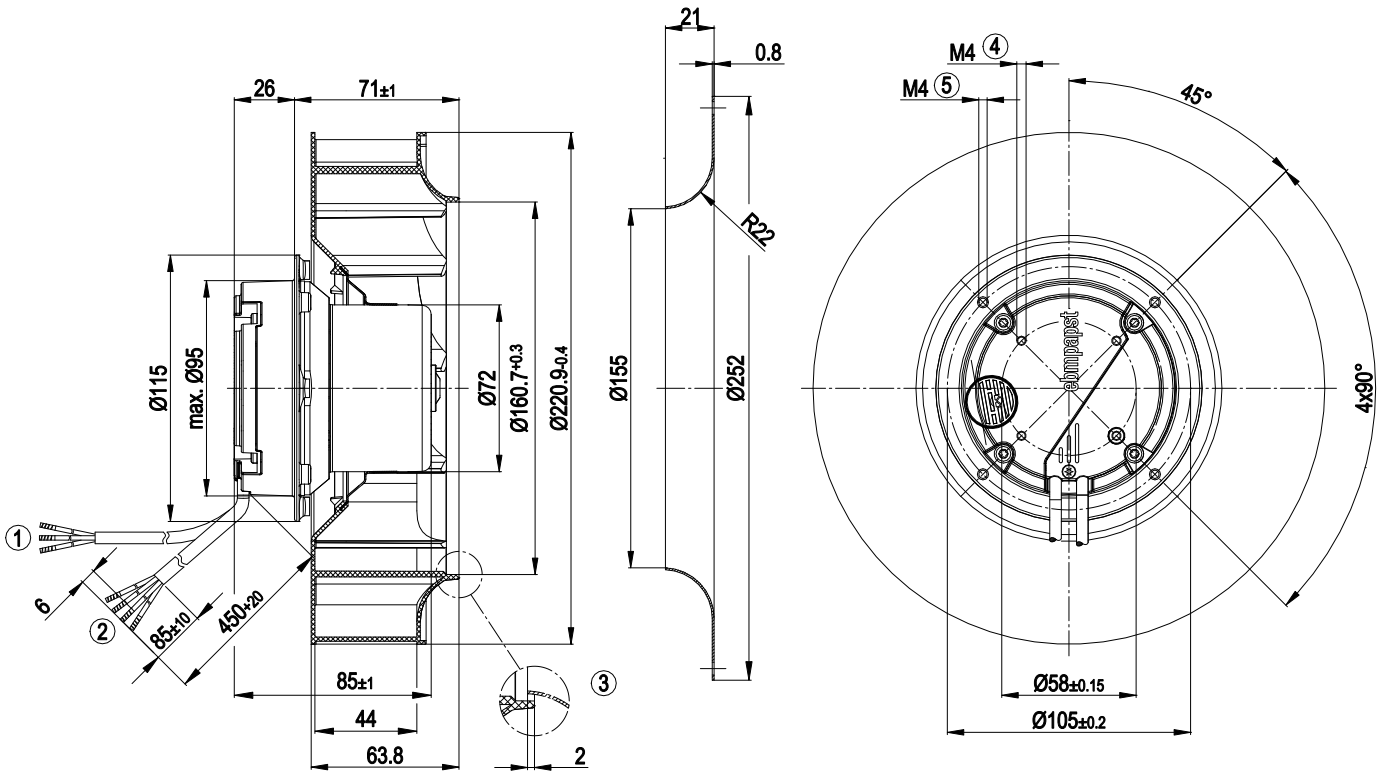
Weight	1.4 kg
Size	220 mm
Motor size	55
Rotor surface	Thick-film passivated
Electronics housing material	Die-cast aluminum
Impeller material	PA plastic
Number of blades	11
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	IP44
Insulation class	"B"
Moisture (F) / Environmental (H) protection class	F3-1; H1
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 - Control input 0-10 VDC / PWM - Control interface with SELV potential safely disconnected from supply - Thermal overload protection for motor
EMC immunity to interference	According to EN 61000-6-2 (industrial environment)
EMC circuit feedback	According to EN 61000-3-2/3
EMC interference emission	According to EN 61000-6-3 (household environment)
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)
Conformity with standards	EN 60335-1; CE
Approval	EAC

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Product drawing



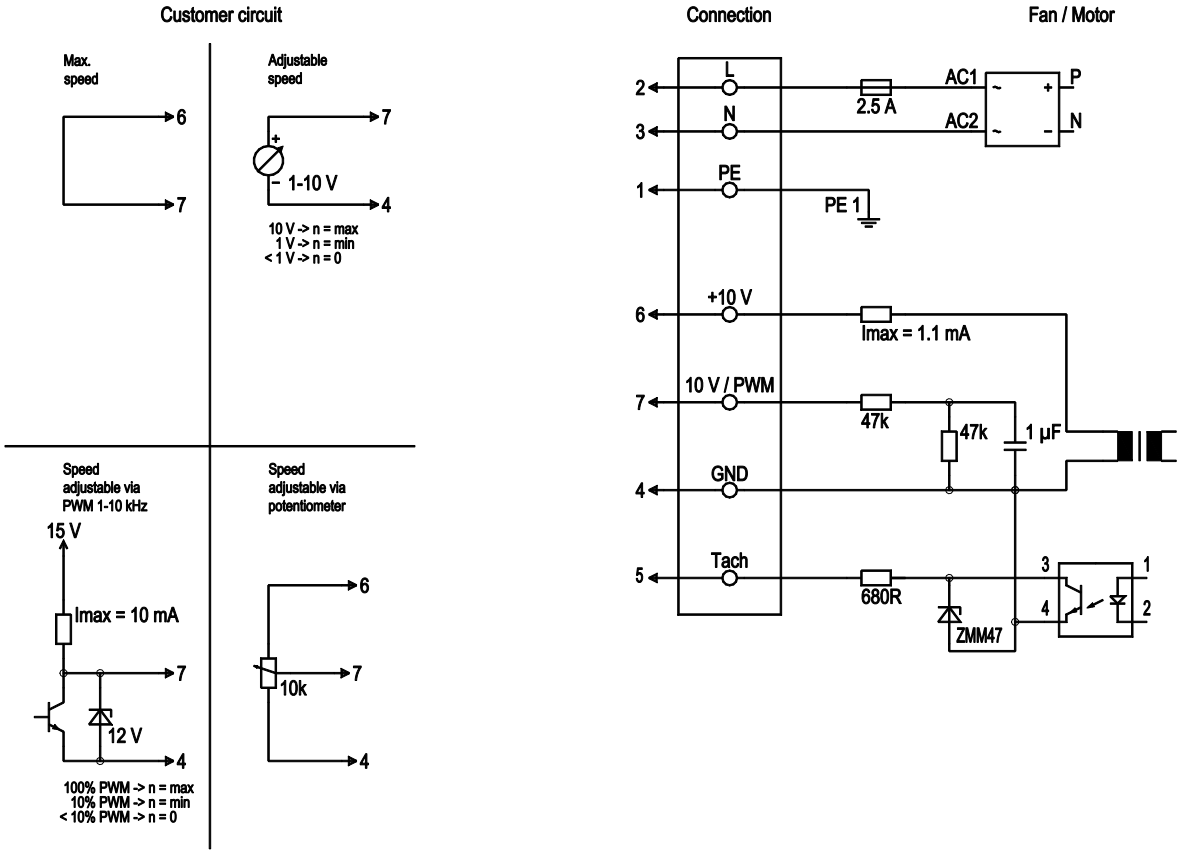
1	Cable PVC 3G 0.5 mm²; 3 x crimped splices
2	Cable PVC 4 x 0.25 mm²; 4 x crimped splices
3	Accessory part: inlet ring 09609-2-4013 not included in scope of delivery
4	Max. clearance for screw 6 mm
5	Max. clearance for screw 6 mm

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Connection diagram



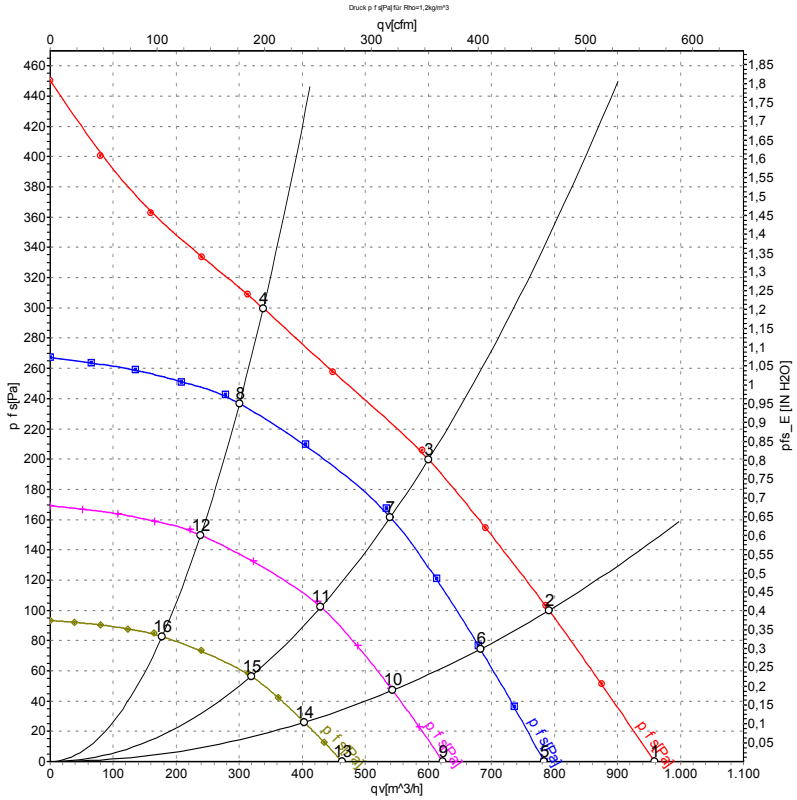
No.	Conn.	Designation	Color	Function/assignment
	2	L	brown	Power supply 230 VAC, 50-60 Hz, see nameplate for voltage range
	3	N	blue	Neutral conductor
	1	PE	green/yellow	Protective earth
	7	0-10 V PWM	yellow	Control input 0-10 V or PWM, electrically isolated
	5	Tach	white	Tach output: open collector,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

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Curves: Air performance 50 Hz



Measurement: LU-66400-1

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	q_V	p_{fs}	q_V	p_{fs}
	V	Hz	min^{-1}	W	A	m^3/h	Pa	cfm	in. wg
1	230	50	2700	62	0.50	960	0	565	0.00
2	230	50	2550	72	0.55	790	100	465	0.40
3	230	50	2445	80	0.61	600	200	355	0.80
4	230	50	2475	78	0.60	340	300	200	1.20
5	230	50	2200	34	0.26	785	0	460	0.00
6	230	50	2200	46	0.35	685	75	400	0.30
7	230	50	2200	59	0.44	540	164	320	0.66
8	230	50	2200	55	0.42	300	237	175	0.95
9	230	50	1750	17	0.13	625	0	365	0.00
10	230	50	1750	23	0.18	545	47	320	0.19
11	230	50	1750	30	0.22	430	104	250	0.42
12	230	50	1750	28	0.21	240	150	140	0.60
13	230	50	1300	7.0	0.05	465	0	275	0.00
14	230	50	1300	9.6	0.07	405	26	235	0.10
15	230	50	1300	12	0.09	320	57	190	0.23
16	230	50	1300	11	0.09	175	83	105	0.33

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

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