R3G220-AD17-18

EC centrifugal fan

backward-curved, single-intake

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Nominal data

Type	**R3G220-AD17-18**
Motor	**M3G055-CF**

Phase		1~
Nominal voltage	VAC	230
Frequency	Hz	50/60
Speed (rpm)	min^{-1}	2740
Power consumption	W	100
Current draw	A	0.75
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

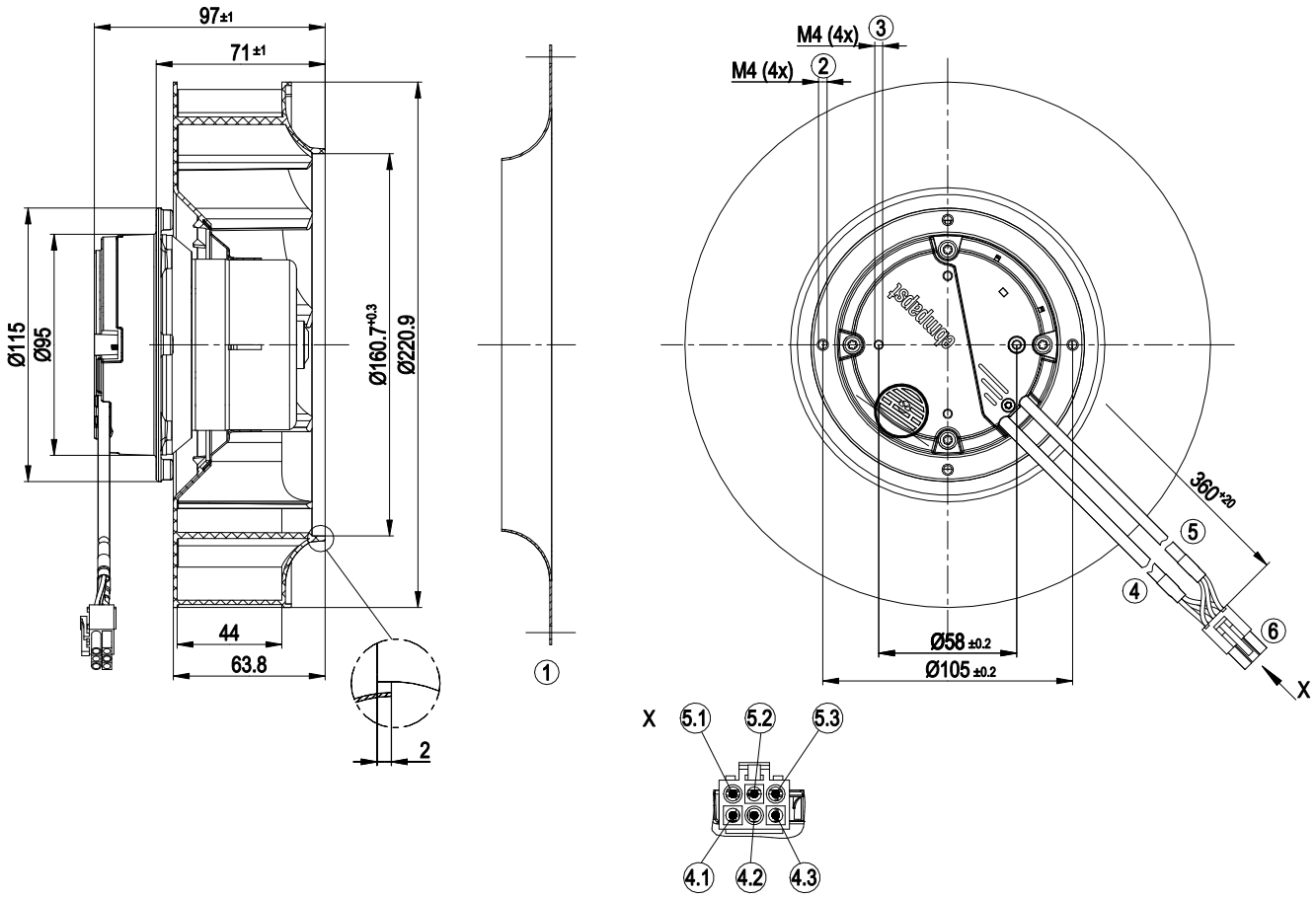
Weight	1.4 kg
Fan size	220 mm
Rotor surface	Galvanized
Electronics housing material	Die-cast aluminum
Impeller material	PA plastic
Number of blades	7
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	IP44
Insulation class	"B"
Moisture (F) / Environmental (H) protection class	F3-1
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	- Tach output - Power limit - Motor current limitation - Soft start - Set value input Lin 0-10 VDC / PWM (1.4 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
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

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Product drawing



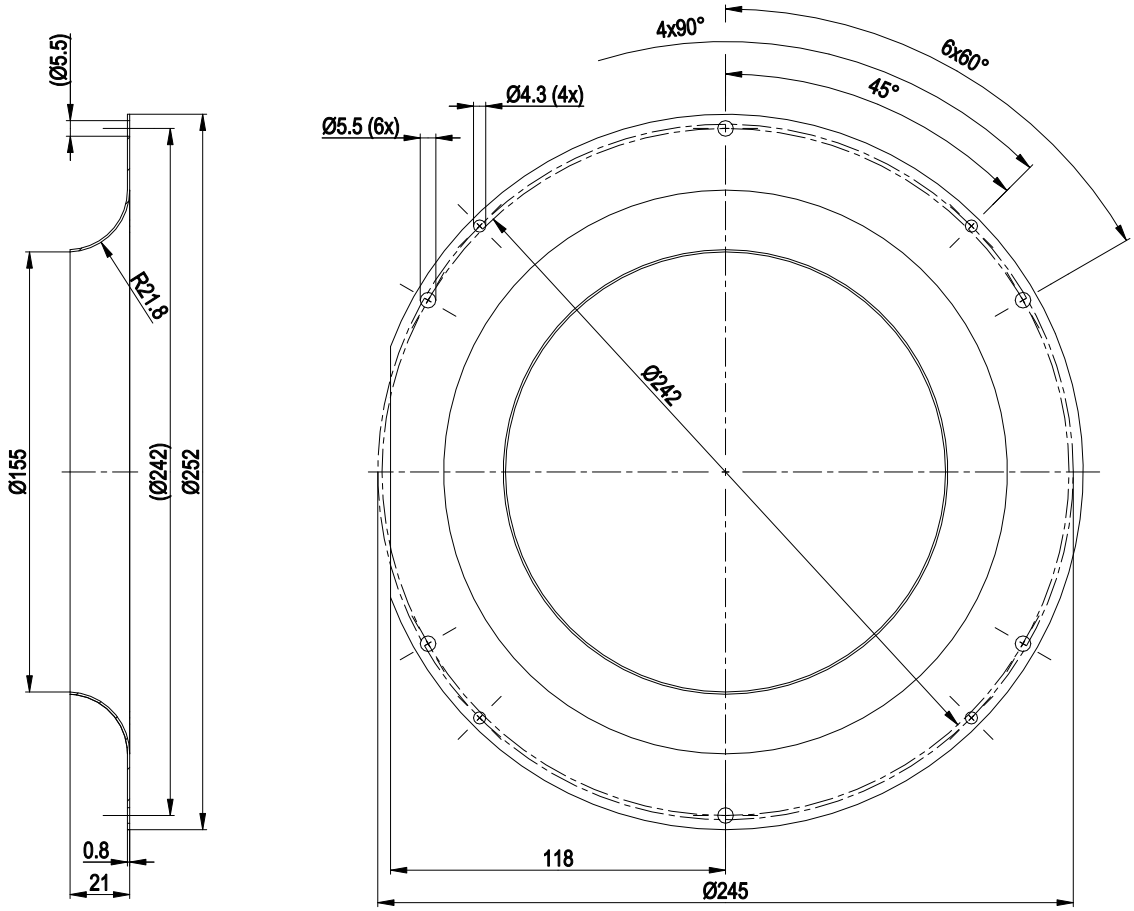
1	Accessory part: inlet ring 09609-2-4013 not included in scope of delivery
2	Max. clearance for screw 6 mm
3	Max. clearance for screw 5 mm
4	Cable PVC 3G 0.5 mm², 3x crimped socket JST SLF 41T P1.3E
4.1	green/yellow
4.2	blue
4.3	brown
5	Cable PVC 3x 0.25 mm², 3x crimped socket JST SLF 01T P1.3E
5.1	blue
5.2	yellow
5.3	white
6	Connector housing JST ELP 06V

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Accessory part

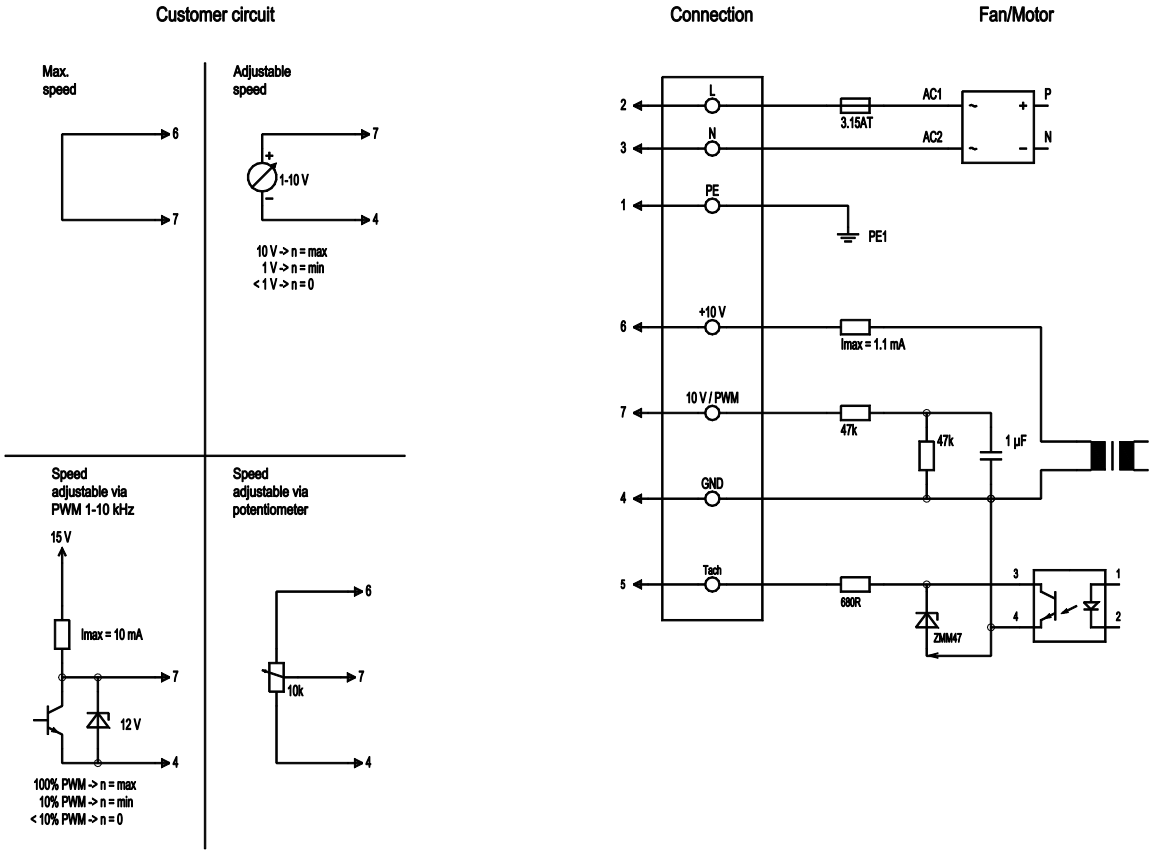


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Connection diagram



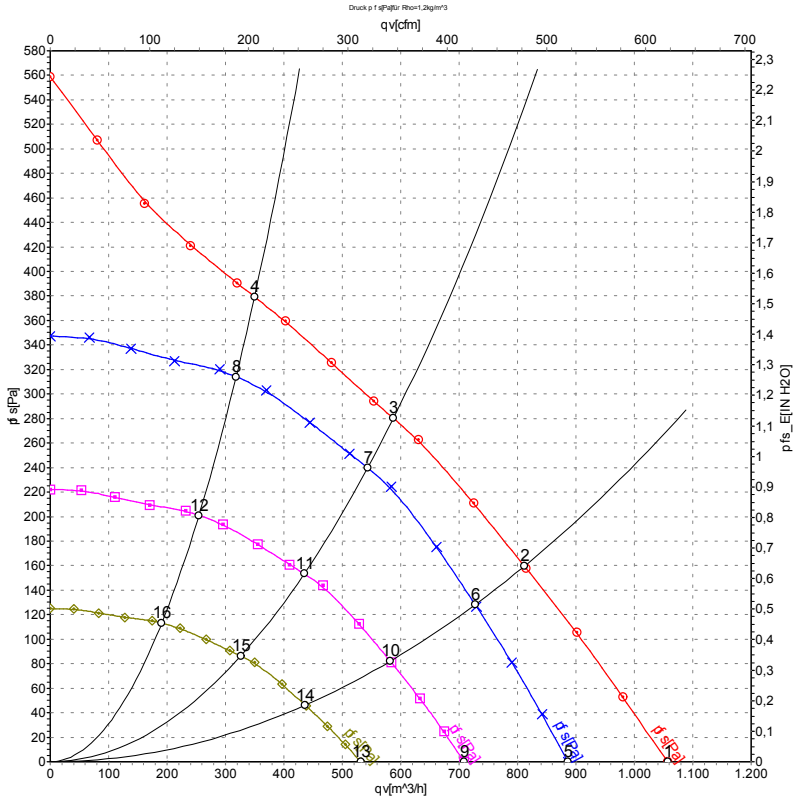
No.	Conn.	Designation	Color	Function/assignment
	2	L	brown	Power supply 230 VAC, 50-60 Hz, see nameplate for voltage range
	3	N	blue	Neutral conductor
	1	PE	green/yellow	Protective earth
	7	0-10V PWM	yellow	Control input 0-10 V or PWM, electrically isolated
	5	Tacho	white	Tach output: Open collector, 1 pulse per revolution, electrically isolated, Isink_max = 10 mA
	6	10V/ max 1.1mA	red	Voltage output 10 V / 1.1 mA, electrically isolated
	4	GND	blue	GND connection for control interface

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Curves: Air performance 50 Hz



Measurement: LU-107164-1

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	230	50	2985	80	0.59	1055	0	620	0.00
2	230	50	2790	96	0.71	810	160	480	0.64
3	230	50	2740	100	0.75	590	280	345	1.12
4	230	50	2745	98	0.74	350	380	205	1.53
5	230	50	2500	47	0.35	885	0	520	0.00
6	230	50	2500	69	0.51	730	128	430	0.51
7	230	50	2500	81	0.60	545	240	320	0.96
8	230	50	2500	74	0.56	320	314	185	1.26
9	230	50	2000	24	0.18	710	0	415	0.00
10	230	50	2000	36	0.26	580	82	345	0.33
11	230	50	2000	42	0.31	435	153	255	0.61
12	230	50	2000	38	0.29	255	201	150	0.81
13	230	50	1500	10	0.08	530	0	315	0.00
14	230	50	1500	15	0.11	435	46	255	0.18
15	230	50	1500	18	0.13	325	86	190	0.35
16	230	50	1500	16	0.12	190	113	110	0.45

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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