R3G225-AE19-09

EC centrifugal fan

backward-curved, single-intake

ebm-papst Mulfingen GmbH & Co. KG
Bachmühle 2 · D-74673 Mulfingen
Phone +49 7938 81-0
Fax +49 7938 81-110
info1@de.ebmpapst.com
www.ebmpapst.com

Limited partnership · Headquarters Mulfingen
Amtsgericht (court of registration) Stuttgart · HRA 590344

General partner Elektrobau Mulfingen GmbH · Headquarters Mulfingen
Amtsgericht (court of registration) Stuttgart · HRB 590142

Nominal data

Type	**R3G225-AE19-09**
Motor	**M3G055-CF**

Phase		1~
Nominal voltage	VAC	230
Frequency	Hz	50/60
Method of obtaining data		fa
Speed (rpm)	min^{-1}	2850
Power consumption	W	117
Current draw	A	0.9
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	40

ml = Max. load · me = Max. efficiency · fa = Free air · cs = Customer specification · ce = Customer equipment
Subject to change

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Technical description

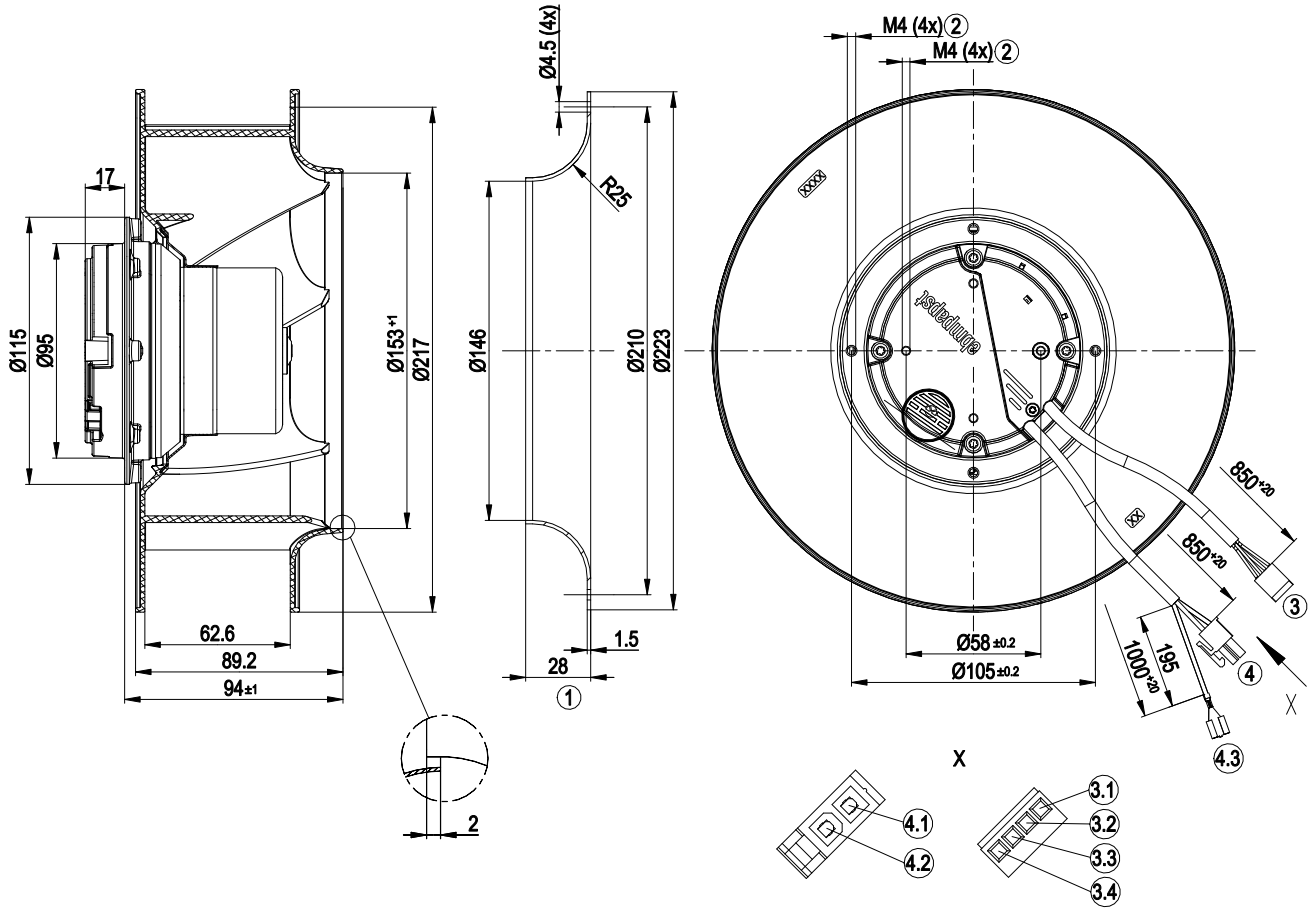
Weight	1.6 kg
Fan size	225 mm
Rotor surface	Thick-film passivated
Electronics housing material	Die-cast aluminum
Impeller material	PA plastic
Number of blades	7
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	IP44; installation- and position-dependent as per EN 60034-5
Insulation 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 - 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



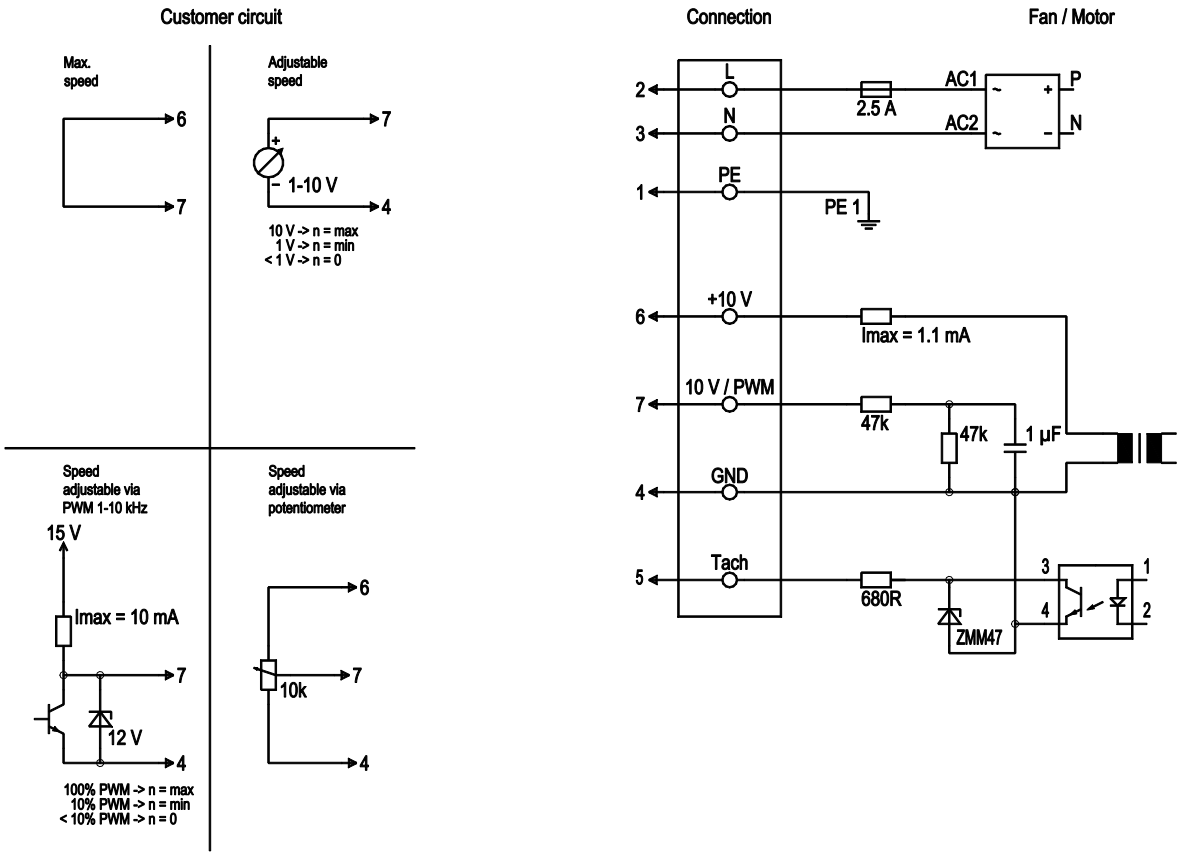
	Max. clearance for screw 6 mm
1	Accessory part: inlet ring 96358-2-4013 not included in scope of delivery
3	Cable PVC 4x 0.25 mm², 4-pole connector housing Molex 10-11-2043, 4x plug pin Molex 08-50-0004
3.1	GND (blue)
3.2	+10 V (red)
3.3	0-10 V PWM (yellow)
3.4	Tach (white)
4	Cable PVC 3G 0.5 mm², 2-pole connector housing Molex 46992-0210, 2x plug pin Molex 39-00-0059
4.1	L (brown)
4.2	N (blue)
4.3	Flat push-on receptacle 6.3 x 0.8 (PE)

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Connection diagram



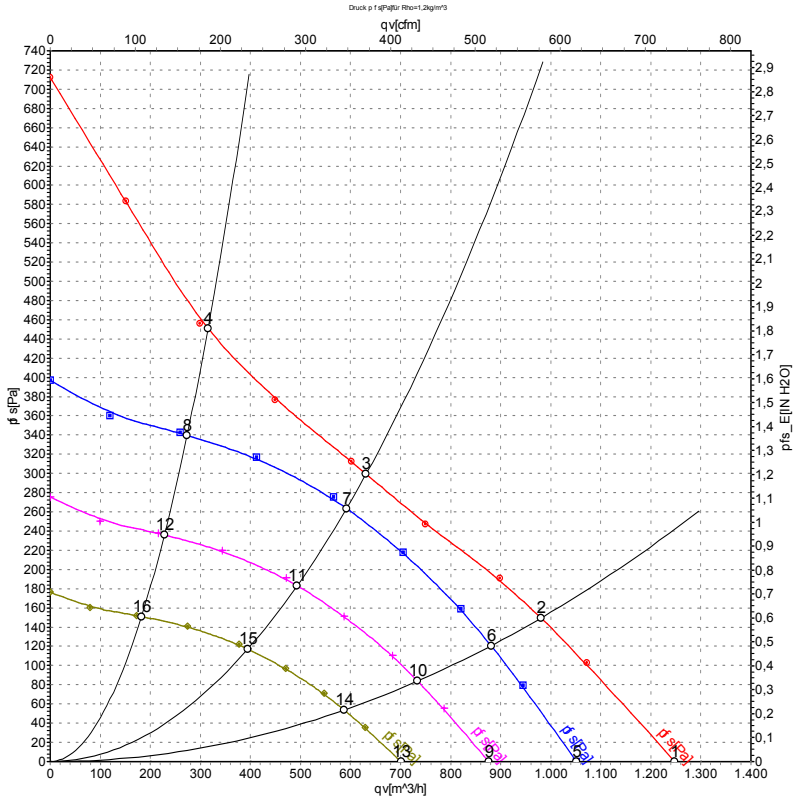
No.	Conn.	Designation	Color	Function/assignment
	2	L	brown	Power supply 230 VAC, 50-60 Hz, see nameplate for voltage range
	3	N	blue	Neutral conductor
	1	PE	green/yellow	Protective earth
	7	0-10 V PWM	yellow	Control input 0-10 V or PWM, electrically isolated
	5	Tach	white	Tach output: open collector, 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-67965-1

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	2850	117	0.90	1250	0	735	0.00
2	230	50	2675	117	0.90	980	150	575	0.60
3	230	50	2560	120	0.90	630	300	370	1.20
4	230	50	2750	117	0.90	315	450	185	1.81
5	230	50	2400	70	0.53	1050	0	620	0.00
6	230	50	2400	85	0.64	880	121	520	0.49
7	230	50	2400	96	0.74	590	264	350	1.06
8	230	50	2400	77	0.60	275	340	160	1.36
9	230	50	2000	40	0.31	875	0	515	0.00
10	230	50	2000	49	0.37	735	84	430	0.34
11	230	50	2000	56	0.43	495	184	290	0.74
12	230	50	2000	45	0.35	230	236	135	0.95
13	230	50	1600	21	0.16	700	0	415	0.00
14	230	50	1600	25	0.19	585	54	345	0.22
15	230	50	1600	29	0.22	395	118	230	0.47
16	230	50	1600	23	0.18	180	151	105	0.61

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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