R3G225-AE19-14

EC centrifugal fan

backward curved, single inlet

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Nominal data

Type	**R3G225-AE19-14**
Motor	**M3G055-CF**

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

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

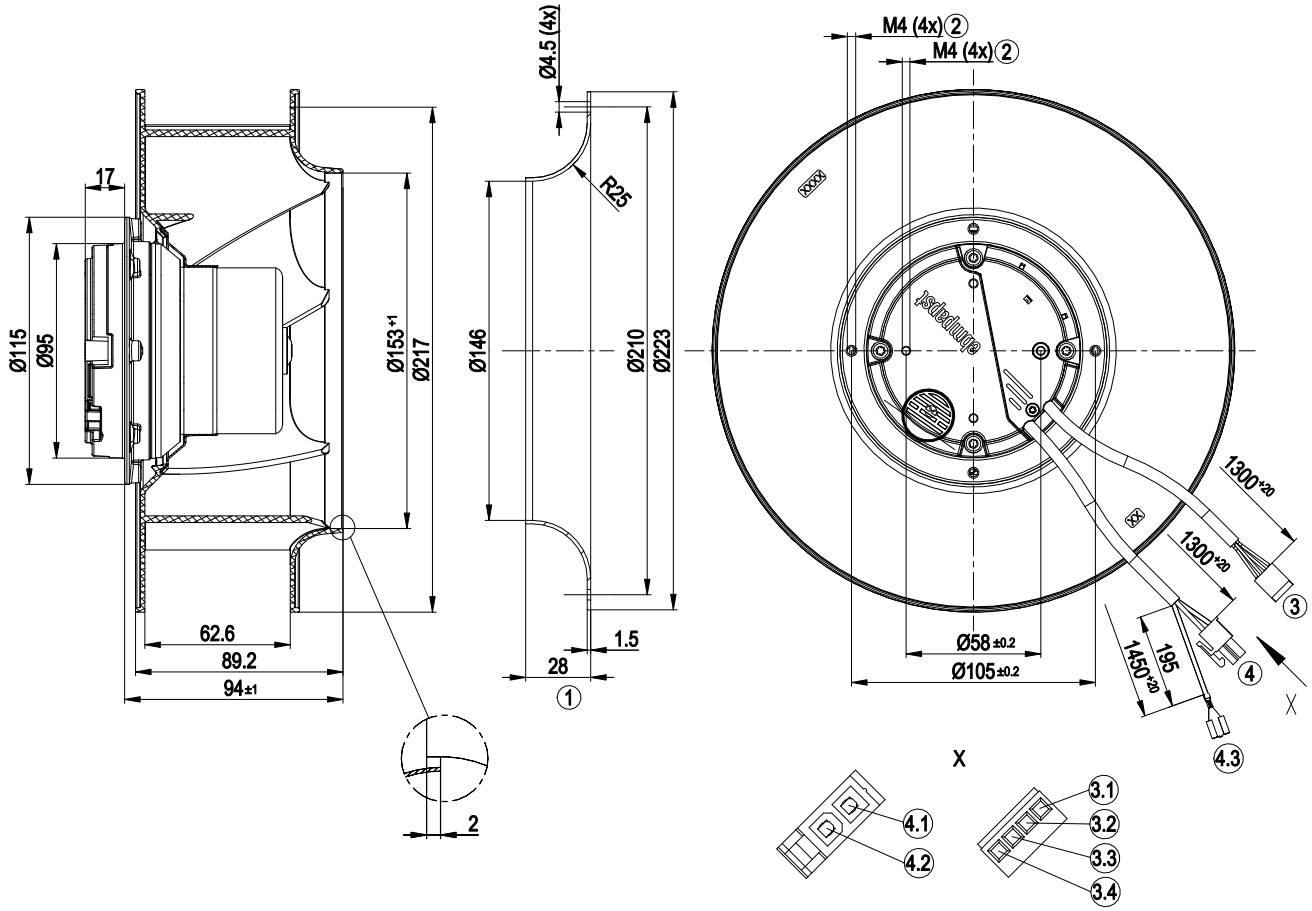
Mass	1.6 kg
Size	225 mm
Surface of rotor	Thick layer passivated
Material of electronics housing	Die-cast aluminium
Material of impeller	PA plastic
Number of blades	7
Direction of rotation	Clockwise, seen on rotor
Type of protection	IP 44; Depending on installation and position as per EN 60034-5
Insulation class	"B"
Humidity class	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 - Output limit - Motor current limit - 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 the mains - Over-temperature protected motor
EMC interference immunity	Acc. to EN 61000-6-2 (industrial environment)
EMC harmonics	Acc. to EN 61000-3-2/3
EMC interference emission	Acc. to EN 61000-6-3 (household environment)
Touch current acc. IEC 60990 (measuring network Fig. 4, TN system)	<= 3.5 mA
Motor protection	Thermal overload protector (TOP) wired internally
Cable exit	Variable
Protection class	I (if protective earth is connected by customer)

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Product drawing



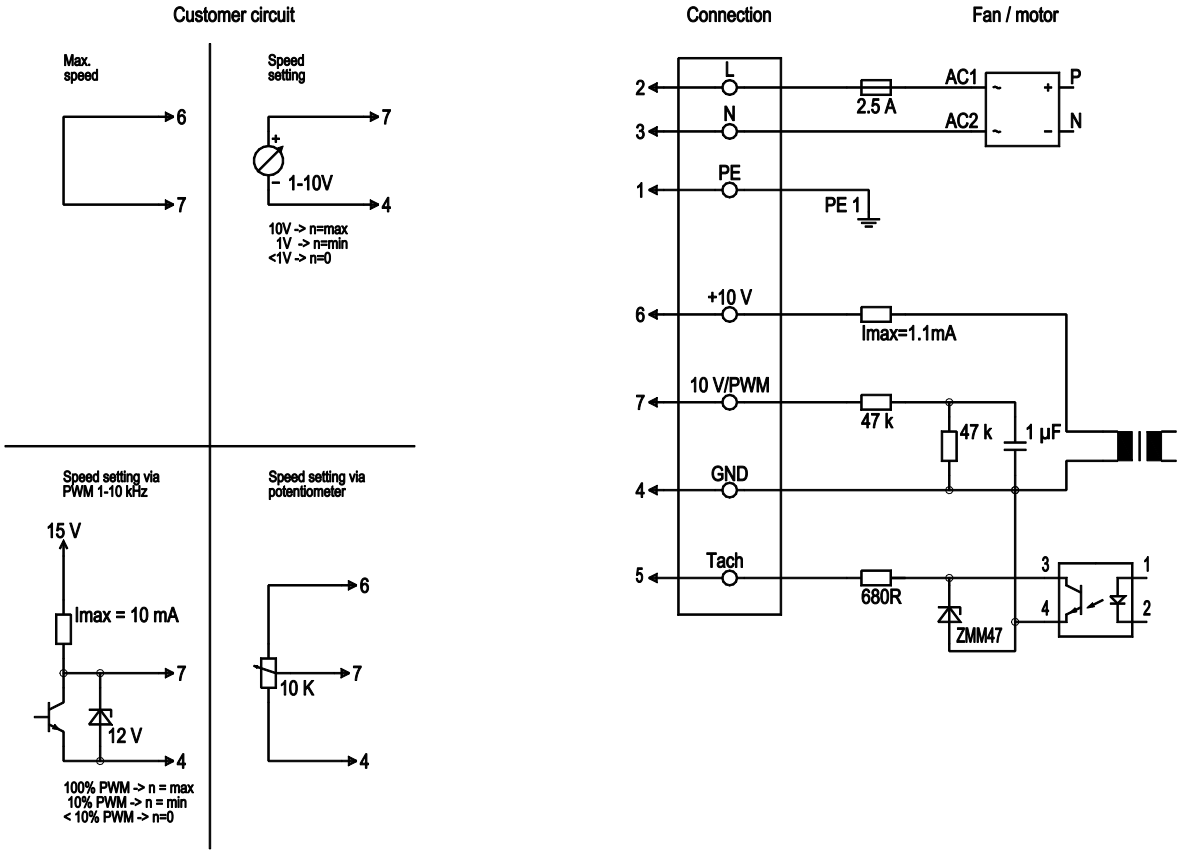
	Thread reach max. 6 mm
1	Accessory part: Inlet nozzle 96358-2-4013 not included in scope of delivery
3	Connection line PVC 4x 0.25 mm², connector housing 4-pole Molex 10-11-2043, 4x plug pin Molex 08-50-0004
3.1	GND (blue)
3.2	+10 V (red)
3.3	0-10 V PWM (yellow)
3.4	Tach (white)
4	Connection line PVC 3G 0.5 mm², connector housing 2-pole Molex 39-01-2025, 2x plug pin Molex 39-00-0059
4.1	L (brown)
4.2	N (blue)
4.3	Threaded pin 6.3 x 0.8 (PE)

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Connection screen



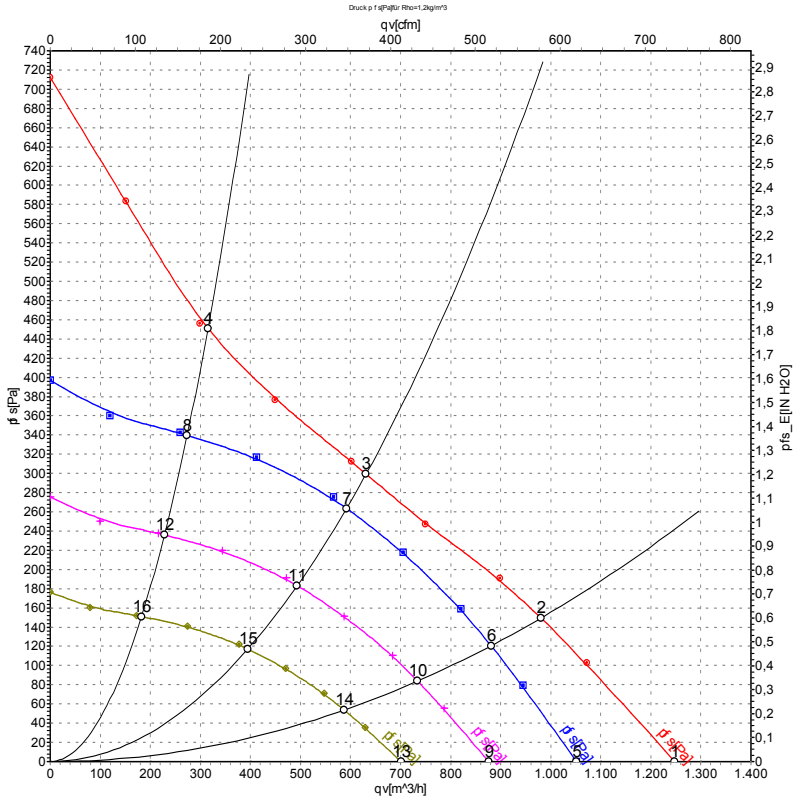
No.	Conn.	Designation	Colour	Function / assignment
	2	L	brown	Power supply 230 VAC, 50-60 Hz, see type plate for voltage range
	3	N	blue	Neutral conductor
	1	PE	green/yellow	Protective earth
	7	0-10 V PWM	yellow	Control input 0 - 10 V or PWM, electrically isolated
	5	Tach	white	Tach output: Open Collector,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

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Charts: Air flow 50 Hz



Measurement: LU-67965

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}
	V	Hz	min^{-1}	W	A	m^3/h	Pa
1	230	50	2850	117	0.90	1250	0
2	230	50	2675	117	0.90	980	150
3	230	50	2560	120	0.90	630	300
4	230	50	2750	117	0.90	315	450
5	230	50	2400	70	0.53	1050	0
6	230	50	2400	85	0.64	880	121
7	230	50	2400	96	0.74	590	264
8	230	50	2400	77	0.60	275	340
9	230	50	2000	40	0.31	875	0
10	230	50	2000	49	0.37	735	84
11	230	50	2000	56	0.43	495	184
12	230	50	2000	45	0.35	230	236
13	230	50	1600	21	0.16	700	0
14	230	50	1600	25	0.19	585	54
15	230	50	1600	29	0.22	395	118
16	230	50	1600	23	0.18	180	151

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

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