R3G225-RH05-20

EC centrifugal fan

backward curved, single inlet

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Nominal data

Type	**R3G225-RH05-20**
Motor	**M3G055-CF**

Phase		1~
Nominal voltage	VAC	230
Nominal voltage range	VAC	200 .. 240
Frequency	Hz	50/60
Type of data definition		ml
Speed (rpm)	min^{-1}	2120
Power input	W	73
Current draw	A	0.63
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	50

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

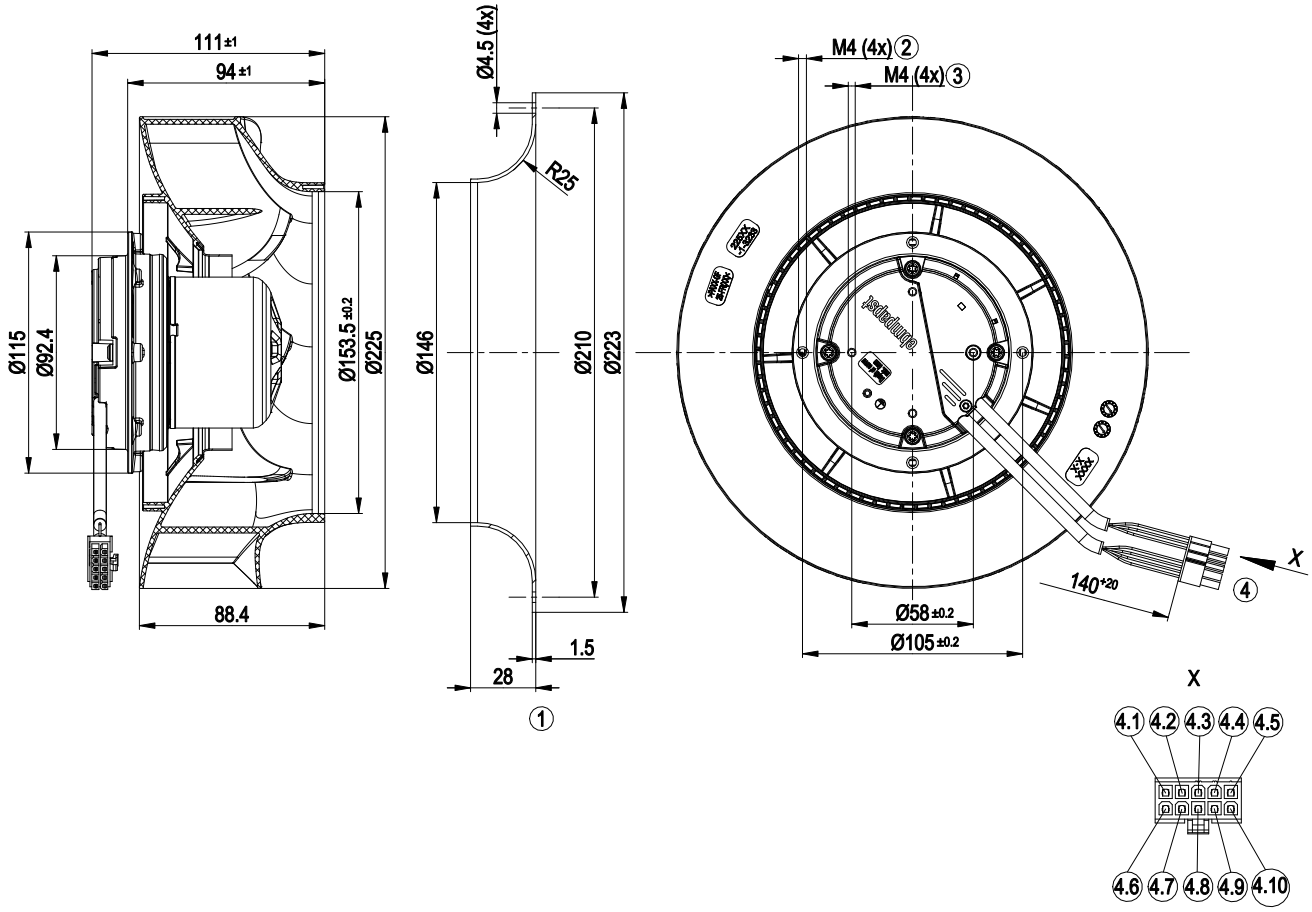
Mass	1.5 kg
Size	225 mm
Surface of rotor	Thick layer passivated
Material of impeller	PA plastic
Number of blades	7
Direction of rotation	Clockwise, seen on rotor
Type of protection	IP 54
Insulation class	"B"
Max. permissible ambient motor temp. (transp./ storage)	+ 80 °C
Min. permissible ambient motor temp. (transp./storage)	- 40 °C
Mounting position	Any
Condensate discharge holes	None, open rotor
Operation mode	S1
Motor bearing	Ball bearing
Technical features	- Output 10 VDC, max. 10 mA - Tach output - Output limit - Motor current limit - Soft start - Control input 0-10 VDC / PWM - Control interface with SELV potential safely disconnected from the mains - Overvoltage detection - Over-temperature protected electronics / motor - Line undervoltage detection
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
Electrical leads	With plug
Motor protection	Locked-rotor protection
Cable exit	Variable
Protection class	I (if protective earth is connected by customer)
Product conforming to standard	EN 60335-1; CE

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Product drawing



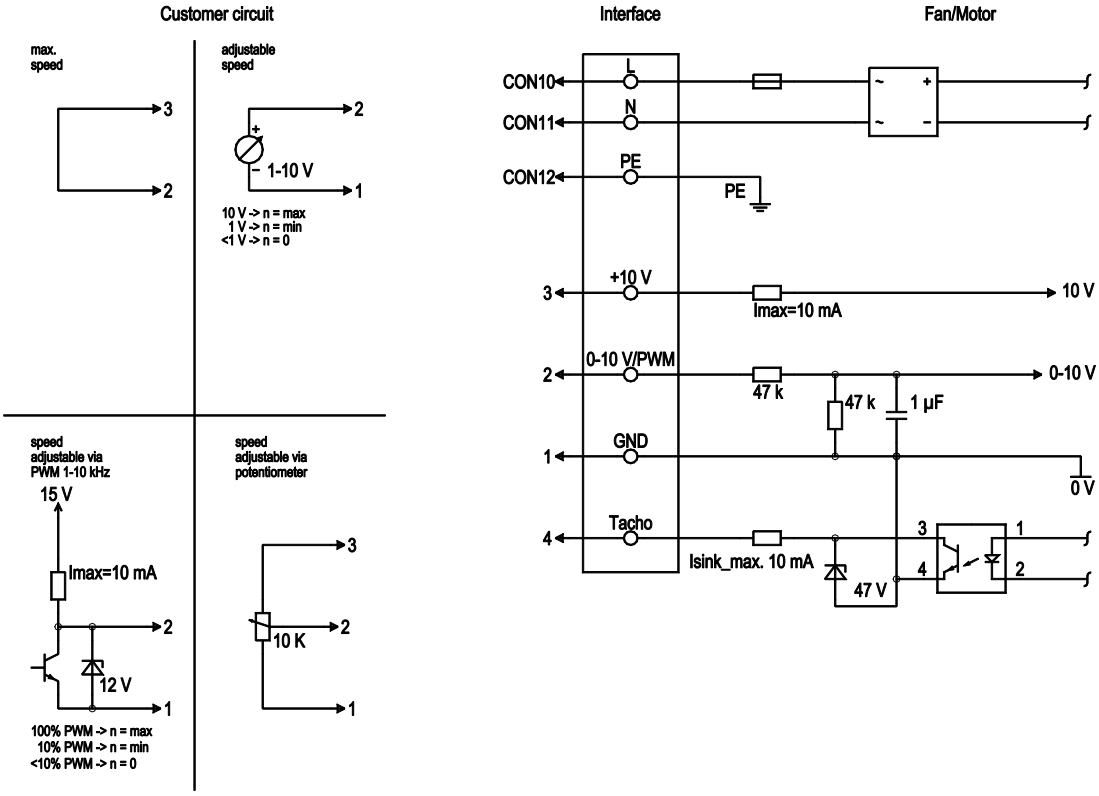
1	Accessory part: Inlet nozzle 96358-2-4013 not included in scope of delivery
2	Thread reach max. 6 mm
3	Thread reach max. 6 mm
4	Connection line PVC 3G 0.5 mm², connection line 4x 0.25 mm², connector housing 10-pole Molex 39-00-2100, 7x plug pin Molex 39-00-0059
4.1	N (blue)
4.2	PE (green/yellow)
4.3	not used
4.4	+10 V (red)
4.5	GND (blue)
4.6	L (brown)
4.7	not used
4.8	not used
4.9	Tach (white)
4.10	0-10 V PWM (yellow)

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Connection screen



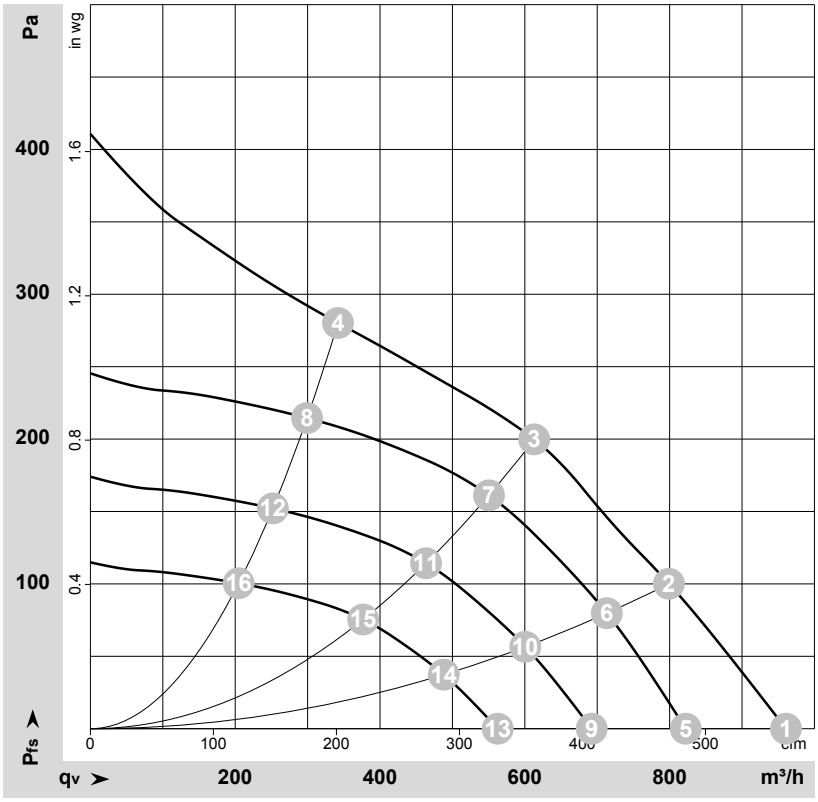
No.	Conn.	Designation	Colour	Function / assignment
	CON10	L	brown	Mains connection, power supply, phase, see type plate for voltage range
	CON11	N	blue	Mains connection, power supply, neutral conductor, see type plate for voltage range
	CON12	PE	green/yellow	Earth connection
	2	0- 10V PWM	yellow	0-10 V/PWM control input, Ri=100 kΩ, SELV
	4	Tach	white	Speed monitoring output, open collector, 1 pulse per revolution, Isink max = 10 mA, SELV
	3	+10 V	red	Fixed voltage output 10 VDC +/-3 %, Imax. 10 mA, short-circuit-proof, power supply for ext. devices (e.g. potentiometer), SELV
	1	GND	blue	Signal ground for control interface, SELV

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Charts: Air flow 50 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-169301-1

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	LpA_{in}	LwA_{in}	q_V	p_{fs}	q_V	p_{fs}
	V	Hz	min^{-1}	W	A	dB(A)	dB(A)	m^3/h	Pa	cfm	inH2O
1	230	50	2220	64	0.56	62	69	960	0	565	0.00
2	230	50	2125	72	0.63	58	66	800	100	470	0.40
3	230	50	2120	73	0.63	53	61	615	200	360	0.80
4	230	50	2170	68	0.60	57	65	340	280	200	1.12
5	230	50	1900	40	0.35	58	65	820	0	485	0.00
6	230	50	1900	52	0.45	56	63	715	81	420	0.33
7	230	50	1900	53	0.46	51	58	550	161	325	0.65
8	230	50	1900	46	0.40	53	61	300	215	175	0.86
9	230	50	1600	24	0.21	54	61	690	0	405	0.00
10	230	50	1600	31	0.27	51	59	600	57	355	0.23
11	230	50	1600	31	0.27	46	54	465	114	275	0.46
12	230	50	1600	27	0.24	49	57	250	152	150	0.61
13	230	50	1300	13	0.11	48	56	565	0	330	0.00
14	230	50	1300	17	0.14	46	53	490	38	285	0.15
15	230	50	1300	17	0.15	41	49	375	76	220	0.31
16	230	50	1300	15	0.13	44	52	205	100	120	0.40

U = Supply voltage · f = Frequency · n = Speed (rpm) · P_{ed} = Power input · I = Current draw · LpA_{in} = Sound pressure level inlet side · LwA_{in} = Sound power level inlet side · q_V = Air flow
p_{fs} = Pressure increase

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