R3G225-AH54-12

EC centrifugal fan

backward-curved, single-intake

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Nominal data

Type	**R3G225-AH54-12**
Motor	**M3G074-CF**

Phase		1~
Nominal voltage	VAC	230
Nominal voltage range	VAC	200 .. 277
Frequency	Hz	50/60
Method of obtaining data		ml
Speed (rpm)	min^{-1}	2920
Power consumption	W	170
Current draw	A	1.27
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

Data according to Commission Regulation (EU) 327/2011

		Actual	Req. 2015
01 Overall efficiency η_{es}	%	49.4	43.1
02 Measurement category		A	
03 Efficiency category		Static	
04 Efficiency grade N		68.3	62
05 Variable speed drive		Yes	

09 Power consumption P_{ed}	kW	0.16
09 Air flow q_v	m^3/h	705
09 Pressure increase p_{fs}	Pa	363
10 Speed (rpm) n	min^{-1}	2890
11 Specific ratio*		1.00

Data obtained at optimum efficiency level.
The ErP data is determined using a motor-impeller combination in a standardized measurement setup.

* Specific ratio = 1 + p_{fs} / 100 000 Pa

LU-111834

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Technical description

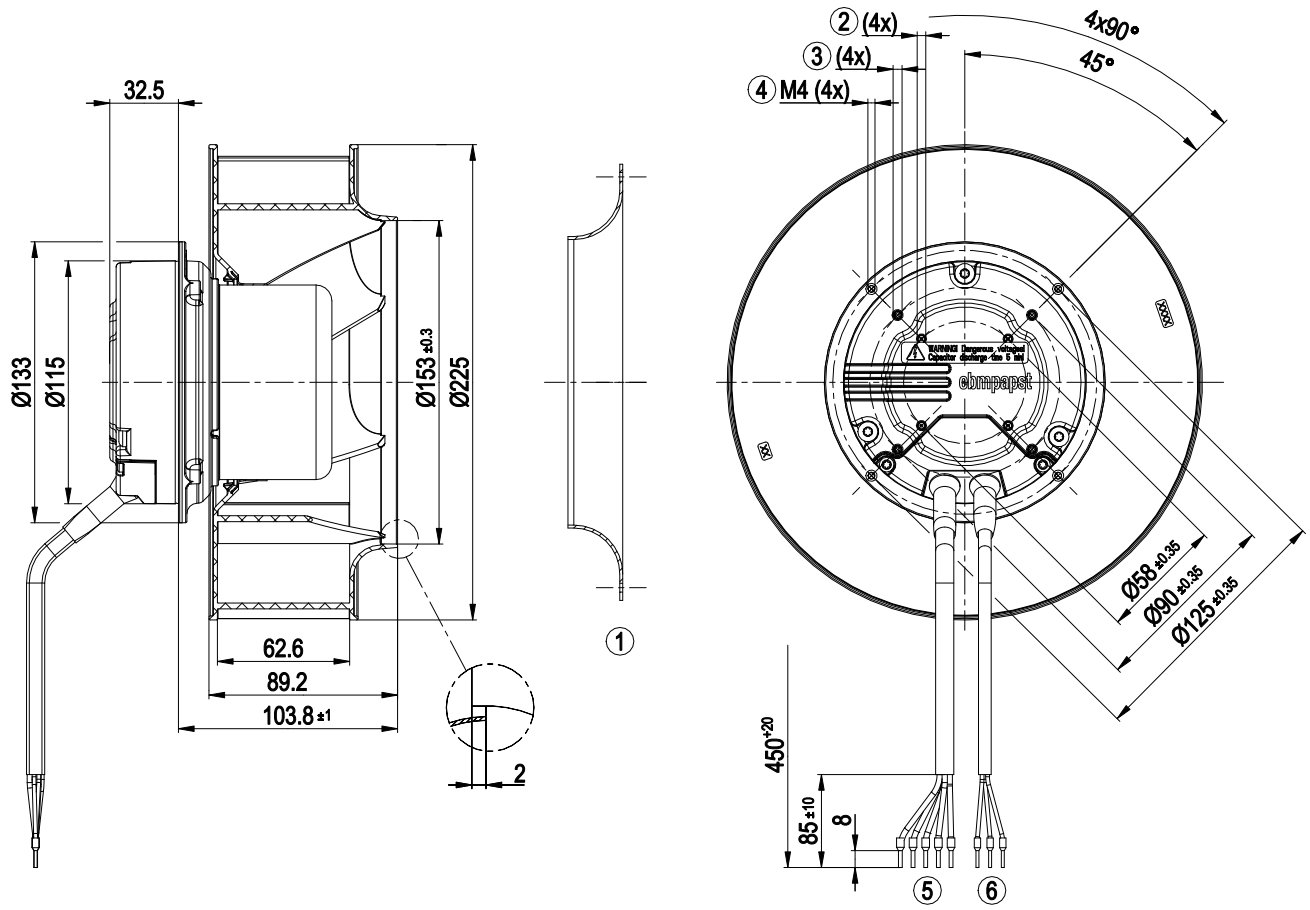
Weight	2.2 kg
Size	225 mm
Motor size	74
Rotor surface	Thick-film passivated
Impeller material	PA plastic
Number of blades	7
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	IP20
Insulation class	"B"
Max. permitted ambient temp. for motor (transport/storage)	+ 80 °C
Min. permitted ambient temp. for motor (transport/storage)	- 40 °C
Installation position	Shaft horizontal or rotor on bottom; rotor on top on request
Cooling hole/opening	On rotor side
Mode	S1
Motor bearing	Ball bearing
Technical features	- Output 10 VDC, max. 1.1 mA - Alarm relay - Power limiter - Motor current limitation - Soft start - Control input 0-10 VDC / PWM - Control interface with SELV potential safely disconnected from the mains - Overvoltage detection - Thermal overload protection for motor - Line undervoltage detection
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 60034-1; EN 60204-1; EN 60335-1; CE

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Product drawing



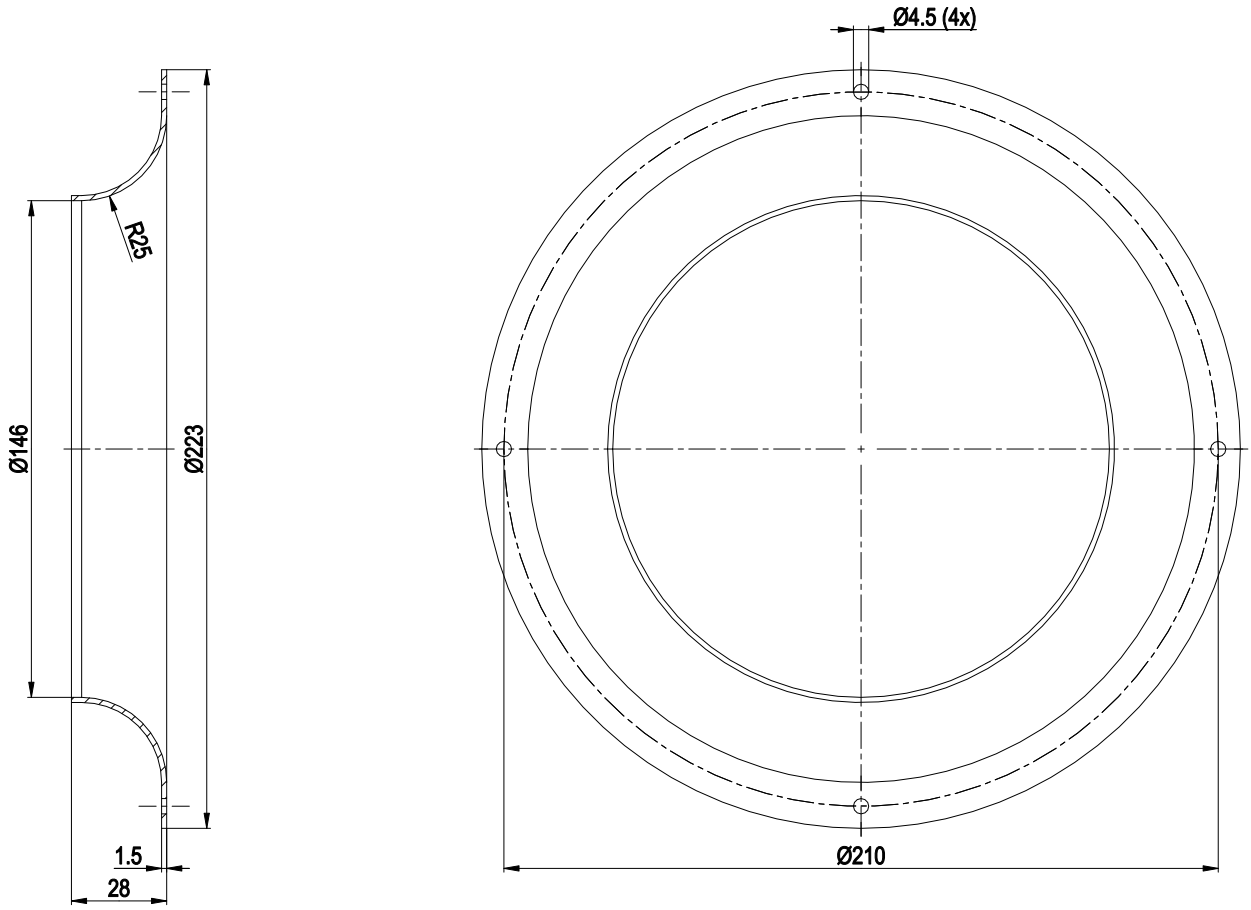
1	Accessory part: inlet ring 96358-2-4013 not included in scope of delivery
2	Tapping hole prepared for self-tapping M4 screw, max. clearance for screw 8 mm
3	Tapping hole prepared for self-tapping M4 screw, max. clearance for screw 6 mm
4	Max. clearance for screw 10 mm
5	Cable PVC AWG18
	5x wire-end ferrule
6	Cable PVC AWG22
	3x wire-end ferrule

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Accessory part



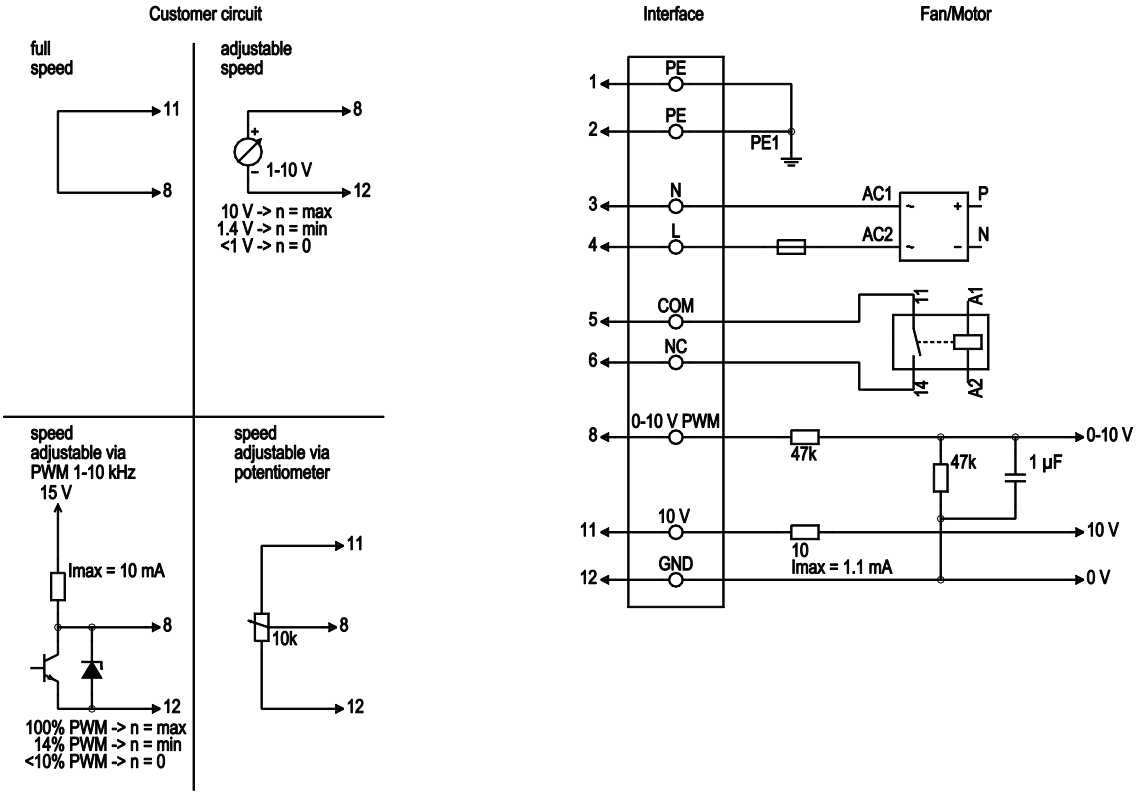
Inlet ring 96358-2-4013 not included in scope of delivery

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Connection diagram



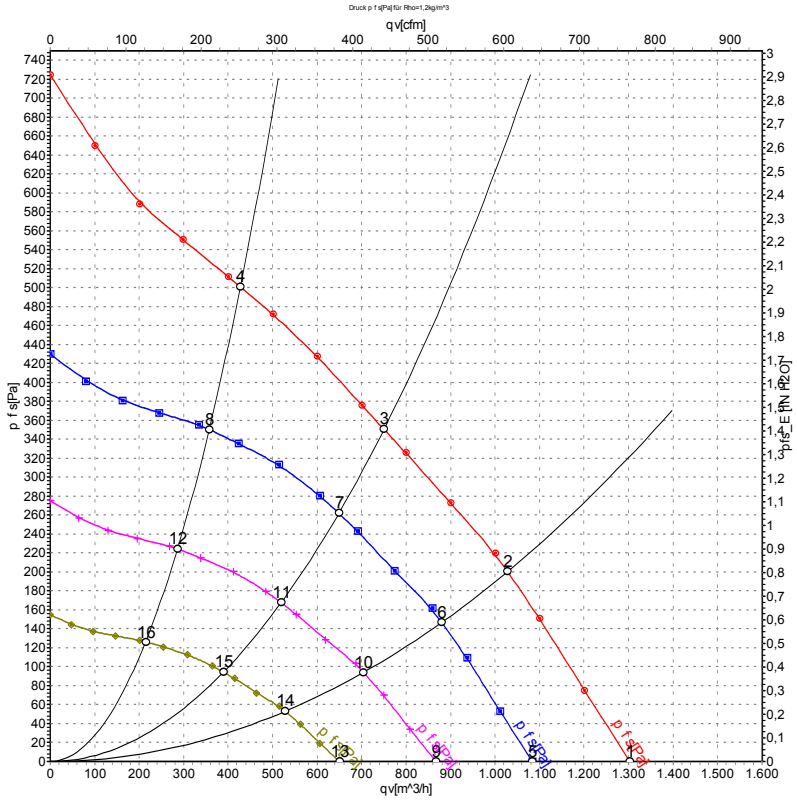
No.	Conn.	Designation	Color	Function/assignment
	1,2	PE	green/yellow	Protective earth
	3	N	blue	Neutral conductor
	4	L	black	Power supply 230 VAC, 50-60 Hz, see nameplate for voltage range
	5	COM	white 1	Floating status contact, break for failure (2A, max. 250 VAC, min.10 mA)
	6	NC	white 2	Floating status contact, break for failure
	8	0-10V PWM	yellow	Control input 0-10 V or PWM, electrically isolated
	11	10V/max1.1mA	red	Voltage output 10 V/1.1 mA, electrically isolated
	12	GND	blue	GND connection for control interface

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Curves: Air performance 50 Hz



Measurement: LU-111834-1

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	3005	149	1.11	1305	0	765	0.00
2	230	50	2920	170	1.27	1030	200	605	0.80
3	230	50	2890	164	1.24	750	350	440	1.41
4	230	50	2990	162	1.21	425	500	250	2.01
5	230	50	2500	86	0.64	1085	0	640	0.00
6	230	50	2500	106	0.79	880	147	520	0.59
7	230	50	2500	106	0.80	650	262	380	1.05
8	230	50	2500	95	0.71	355	350	210	1.41
9	230	50	2000	44	0.33	865	0	510	0.00
10	230	50	2000	54	0.41	705	94	415	0.38
11	230	50	2000	54	0.41	520	168	305	0.67
12	230	50	2000	48	0.36	285	224	170	0.90
13	230	50	1500	19	0.14	650	0	385	0.00
14	230	50	1500	23	0.17	530	53	310	0.21
15	230	50	1500	23	0.17	390	94	230	0.38
16	230	50	1500	20	0.15	215	126	125	0.51

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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