R3G225-AD29-71

EC centrifugal fan

forward-curved, single-intake



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Nominal data

Type	**R3G225-AD29-71**
Motor	**M3G084-FA**

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}	1815
Power consumption	W	545
Current draw	A	3.5
Min. back pressure	Pa	300
Min. back pressure	in. wg	1.2
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	45

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}	%	48.1	34.7
02 Measurement category		A	
03 Efficiency category		Static	
04 Efficiency grade N		57.4	44
05 Variable speed drive		Yes	

09 Power consumption P_{ed}	kW	0.34
09 Air flow q_v	m^3/h	910
09 Pressure increase p_{fs}	Pa	583
10 Speed (rpm) n	min^{-1}	2020
11 Specific ratio*		1.01

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-111997

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Technical description

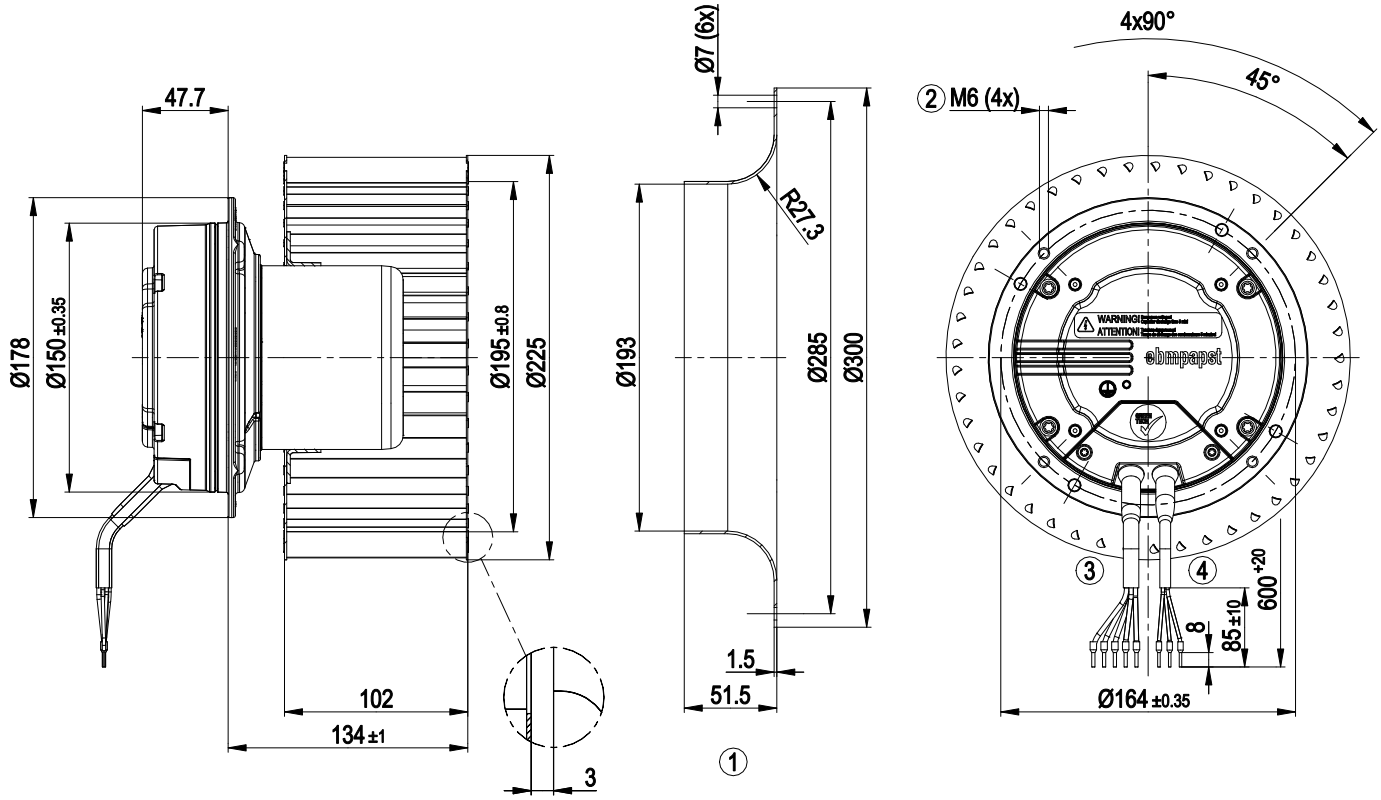
Weight	4.9 kg
Size	225 mm
Motor size	84
Rotor surface	Painted black
Electronics housing material	Die-cast aluminum
Impeller material	Sheet steel, galvanized
Number of blades	45
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	IP54
Insulation class	"B"
Moisture (F) / Environmental (H) protection class	H1
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 top; rotor on bottom on request
Condensation drainage holes	None
Mode	S1
Motor bearing	Ball bearing
Technical features	- Output 10 VDC, max. 1.1 mA - Alarm relay - Motor current limitation - Soft start - Control input 0-10 VDC / PWM - Control interface with SELV potential safely disconnected from the mains - Thermal overload protection for electronics/motor - Line undervoltage detection
EMC immunity to interference	According to EN 61000-6-2 (industrial environment)
EMC interference emission	According to EN 61000-6-4 (industrial 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 61800-5-1; CE
Approval	UL 1004-3 + 60730-1; CSA C22.2 No. 77 + CAN/CSA-E60730-1; EAC

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Product drawing



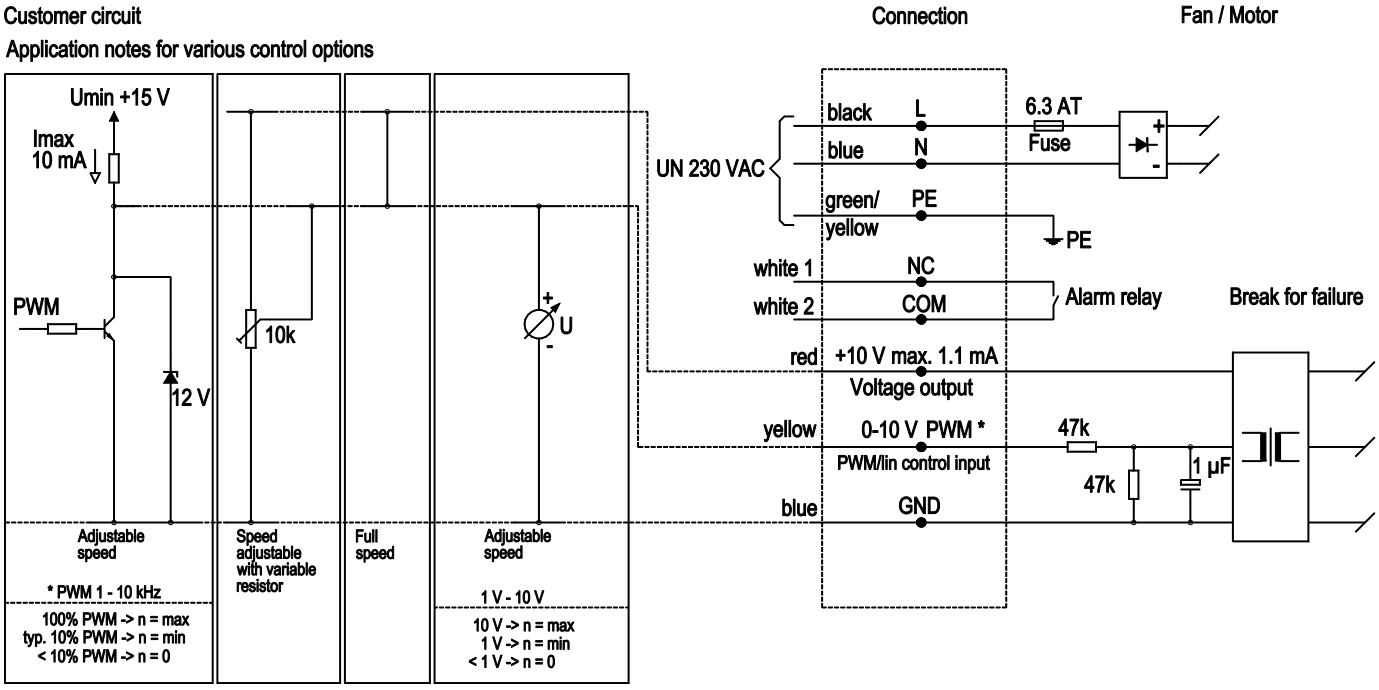
1	Accessory part: inlet ring 25010-2-4013 not included in scope of delivery
2	Max. clearance for screw 10 mm
3	Cable PVC AWG18, 5x crimped ferrules
4	Cable PVC AWG22, 3x crimped ferrules

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Connection diagram

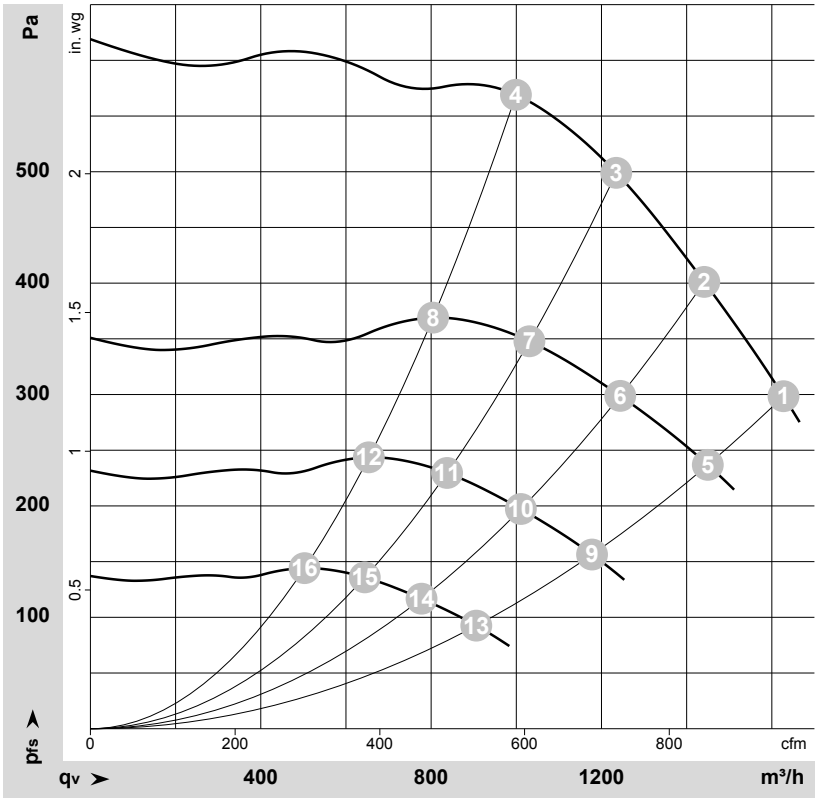


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Curves: Air performance 50 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-111997-1

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	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	in. wg
1	230	50	1815	545	3.50	75	80	1625	300	960	1.20
2	230	50	1855	489	3.24	73	79	1440	400	850	1.61
3	230	50	1915	443	2.91	73	79	1235	500	725	2.01
4	230	50	1985	378	2.47	73	79	1000	570	590	2.29
5	230	50	1600	383	2.54	72	77	1450	239	855	0.96
6	230	50	1600	315	2.08	70	75	1245	300	730	1.20
7	230	50	1600	258	1.69	69	74	1030	351	605	1.41
8	230	50	1600	198	1.29	68	74	805	369	475	1.48
9	230	50	1300	205	1.36	66	72	1180	158	695	0.63
10	230	50	1300	169	1.12	64	70	1010	198	595	0.79
11	230	50	1300	138	0.91	63	69	840	231	495	0.93
12	230	50	1300	106	0.69	62	68	655	244	385	0.98
13	230	50	1000	93	0.62	60	65	905	93	535	0.37
14	230	50	1000	77	0.51	58	63	775	117	455	0.47
15	230	50	1000	63	0.41	57	62	645	137	380	0.55
16	230	50	1000	48	0.32	56	62	505	144	295	0.58

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

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