R3G225-AD29-71

EC centrifugal fan

forward-curved, single-intake



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ErP2015 EXCEEDS THE NORM

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	inH2O	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 ErP Directive

		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

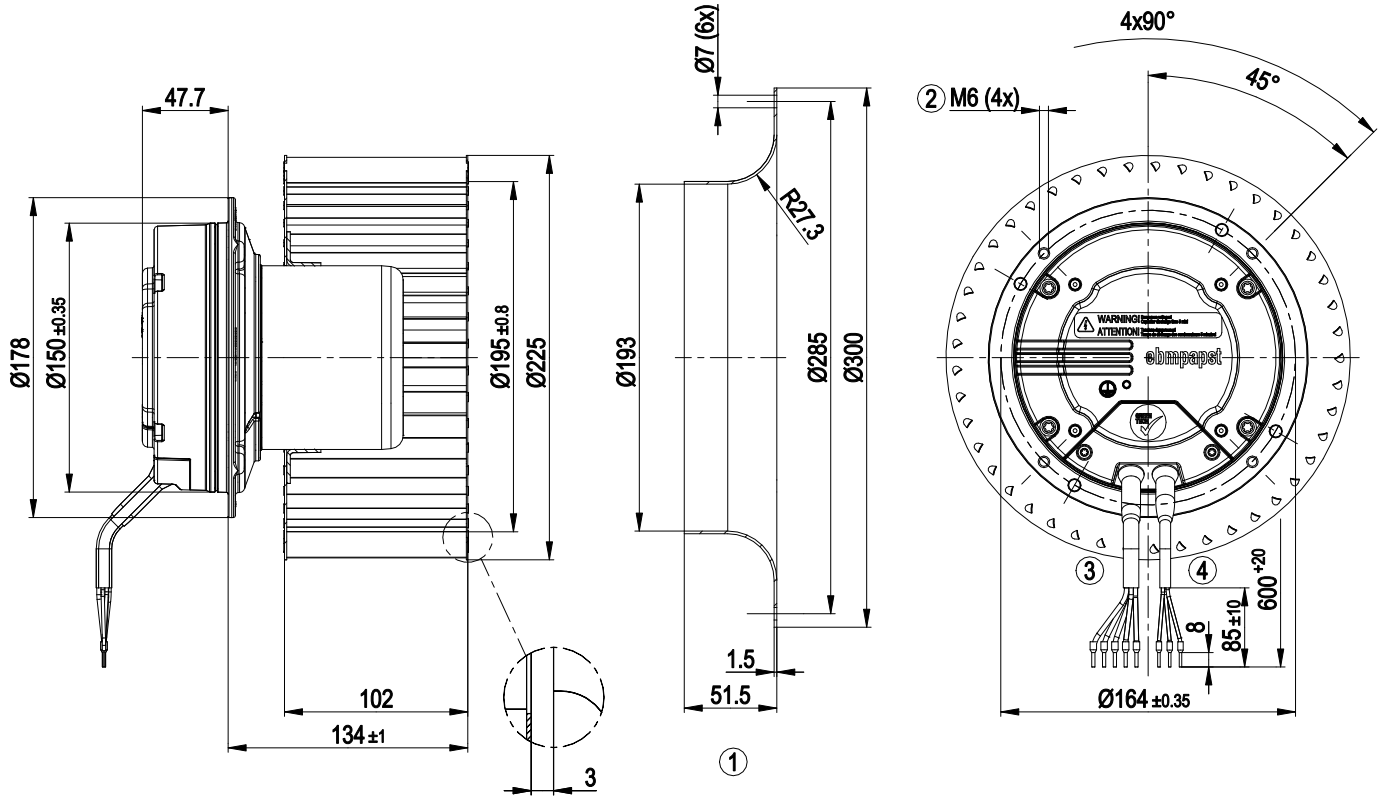
Weight	4.9 kg
Fan size	225 mm
Rotor surface	Painted black
Electronics housing material	Die-cast aluminum
Impeller material	Sheet steel, galvanized
Number of blades	45
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	IP54
Insulation class	"B"
Moisture (F) / Environmental (H) protection class	F3-1
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	CSA C22.2 No. 77; EAC; UL 2111

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Product drawing



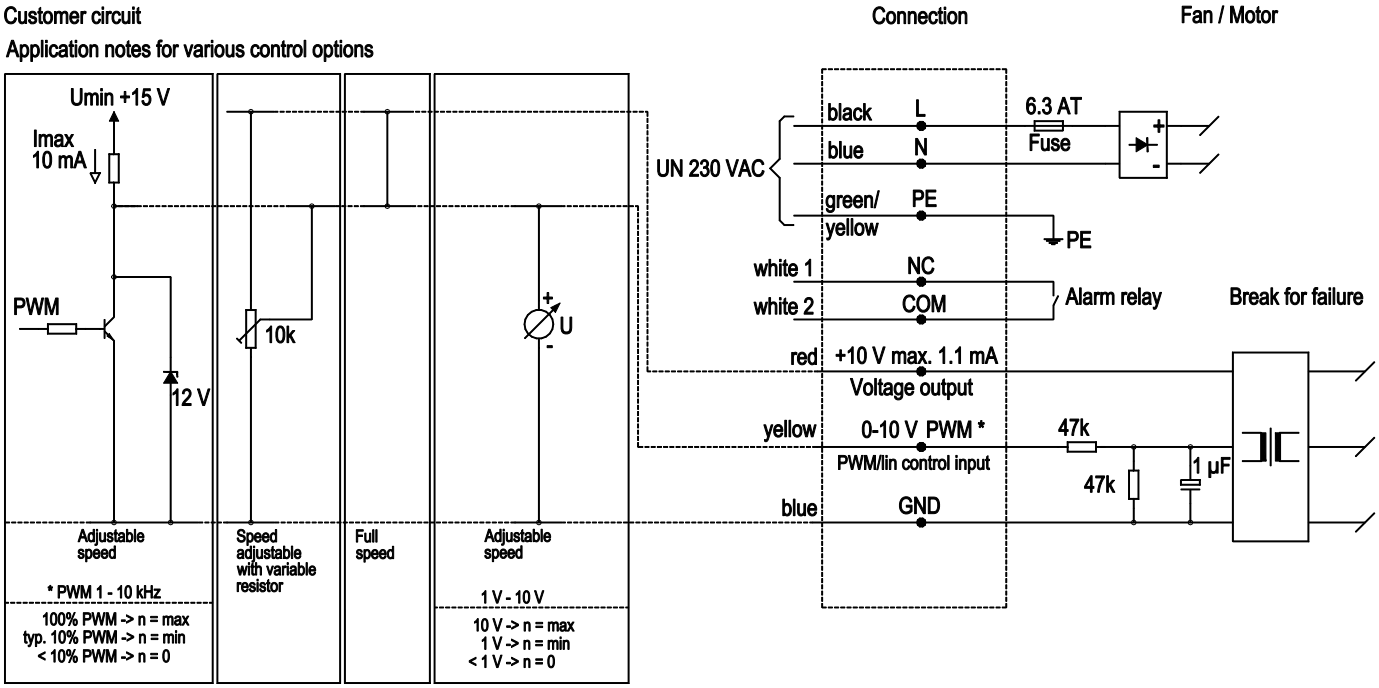
1	Accessory part: inlet ring 25010-2-4013 not included in scope of delivery
2	Max. clearance for screw 10 mm
3	Cable PVC AWG18, 5x crimped ferrules
4	Cable PVC AWG22, 3x crimped ferrules

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Connection diagram

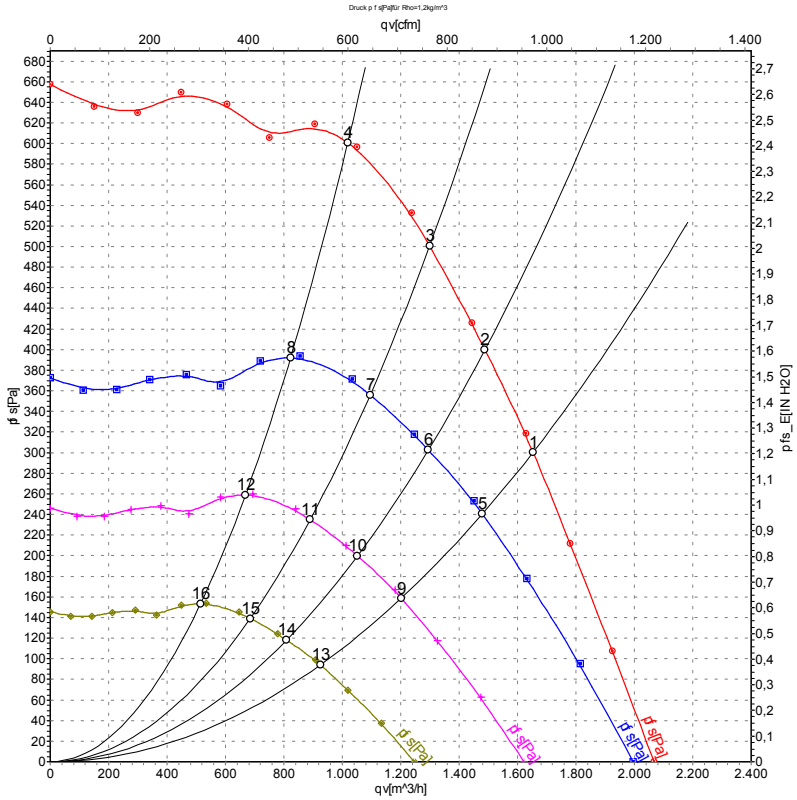


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Curves: Air performance



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	n	P_{ed}	I	LpA_{in}	LwA_{in}	qv	p_{fs}	qv	p_{fs}
	V	min^{-1}	W	A	dB(A)	dB(A)	m^3/h	Pa	CFM	inH2O
1	230	1815	545	3.50	75	80	1655	300	975	1.20
2	230	1840	502	3.33	74	79	1490	400	875	1.61
3	230	1895	457	3.01	73	79	1300	500	765	2.01
4	230	1980	385	2.52	73	79	1020	600	600	2.41
5	230	1600	393	2.61	72	78	1480	242	870	0.97
6	230	1600	331	2.19	71	76	1295	303	760	1.22
7	230	1600	275	1.81	70	75	1095	356	645	1.43
8	230	1600	204	1.33	69	74	825	393	485	1.58
9	230	1300	211	1.40	68	73	1200	160	705	0.64
10	230	1300	178	1.18	66	71	1050	200	620	0.80
11	230	1300	147	0.97	65	71	890	235	525	0.94
12	230	1300	109	0.71	64	70	670	259	395	1.04
13	230	1000	96	0.64	62	67	925	94	545	0.38
14	230	1000	81	0.54	60	66	810	118	475	0.47
15	230	1000	67	0.44	59	65	685	139	405	0.56
16	230	1000	50	0.33	58	64	515	154	305	0.62

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

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