

R3G400-AC28-71

EC centrifugal fan

backward curved, single inlet



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Nominal data

Type	R3G400-AC28-71	
Motor	M3G084-FA	
Phase		1~
Nominal voltage	VAC	230
Nominal voltage range	VAC	200 .. 277
Frequency	Hz	50/60
Type of data definition		ml
Speed	min ⁻¹	1300
Power input	W	355
Current draw	A	2.2
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	35

ml = max. load · me = max. efficiency · fa = running at free air · cs = customer specs · cu = customer unit
Subject to alterations

Data according to ErP directive

Installation category	A
Efficiency category	Static
Variable speed drive	Yes
Specific ratio*	1.00

* Specific ratio = $1 + p_{fs} / 100\,000\text{ Pa}$

		Actual	Request 2013	Request 2015
Overall efficiency η_{es}		58.2	42.6	46.6
Efficiency grade N		73.6	58	62
Power input P_{ed}	kW	0.34		
Air flow q_v	m ³ /h	2615		
Pressure increase p_{fs}	Pa	251		
Speed n	min ⁻¹	1355		

Data established at point of optimum efficiency



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Technical features

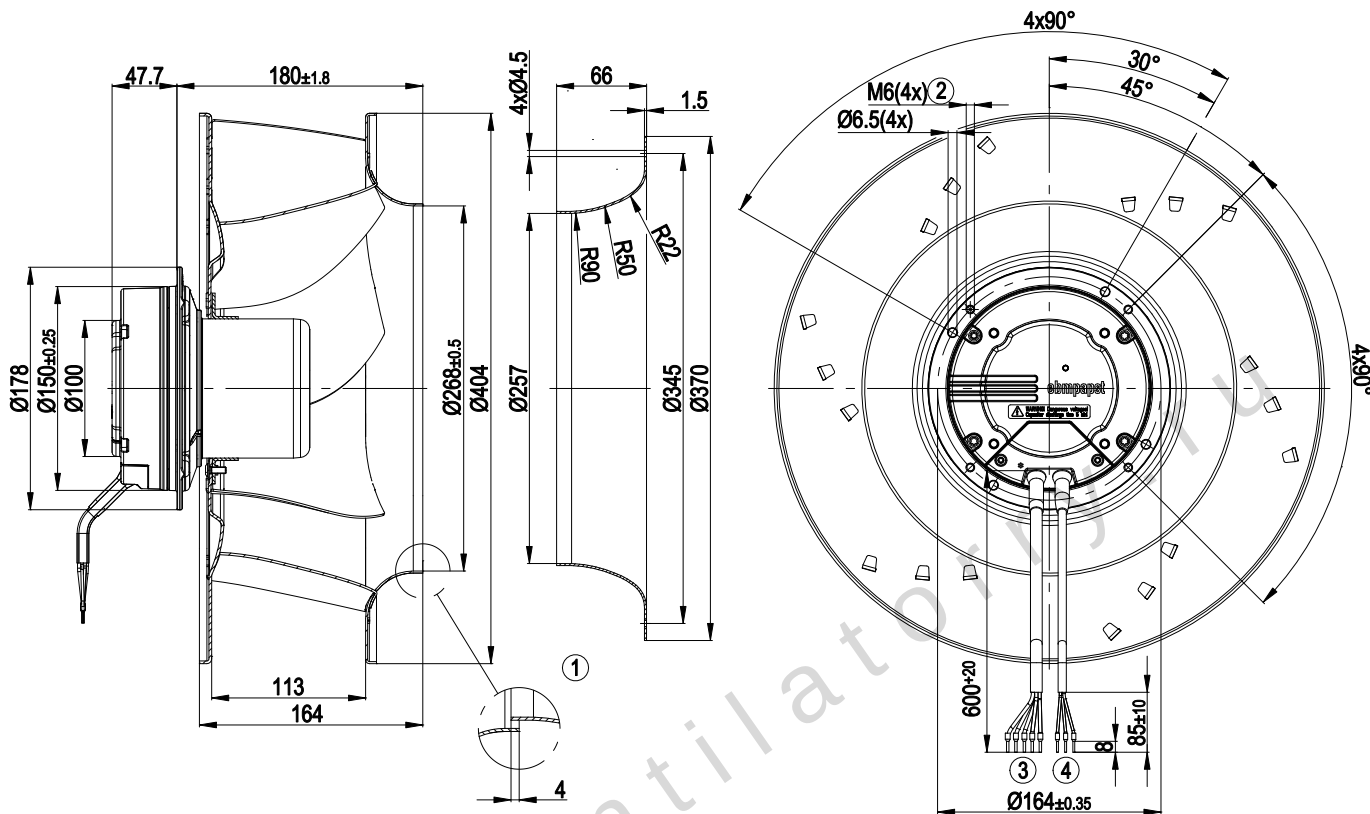
Mass	6.1 kg
Size	400 mm
Surface of rotor	Coated in black
Material of electronics housing	Die-cast aluminium
Material of impeller	Aluminium sheet
Number of blades	6
Direction of rotation	Clockwise, seen on rotor
Type of protection	IP 54
Insulation class	"B"
Humidity class	F3-1
Max. permissible ambient motor temp. (transp./ storage)	+80 °C
Min. permissible ambient motor temp. (transp./storage)	-40 °C
Mounting position	Shaft horizontal or rotor on bottom; rotor on top on request
Condensate discharge holes	None
Operation mode	S1
Motor bearing	Ball bearing
Technical features	- Output 10 VDC, max. 1.1 mA - Alarm relay - Motor current limit - Soft start - Control input 0-10 VDC / PWM - 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
Motor protection	Thermal overload protector (TOP) wired internally
Cable exit	Variable
Protection class	I (if protective earth is connected by customer)
Product conforming to standard	EN 61800-5-1; CE
Approval	UL 2111; CCC; CSA C22.2 Nr.77

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Product drawing



1	Accessory part: inlet nozzle 54476-2-4013 not included in the standard scope of delivery; other inlet nozzles on request
2	Depth of screw 8 - 10 mm
3	Connection line AWG18, 5 x crimped core-end sleeves
4	Connection line AWG 22, 3 x crimped core-end sleeves

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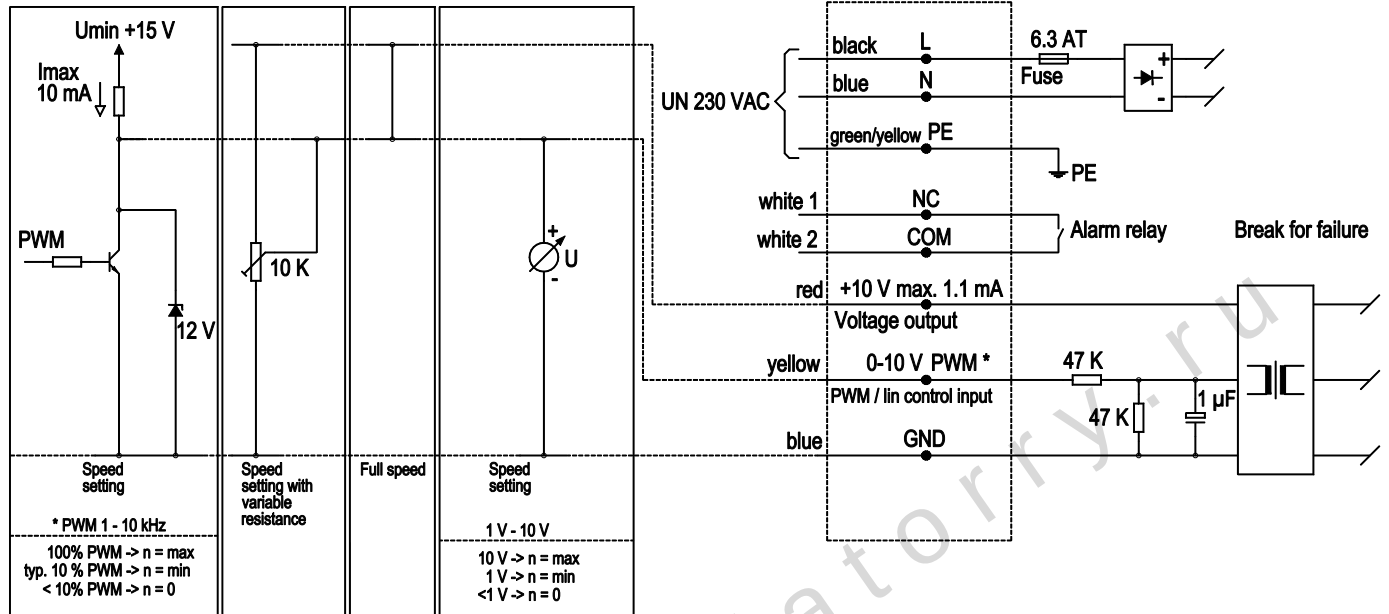
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Connection screen

Customer circuit

Notes on various control possibilities and their applications

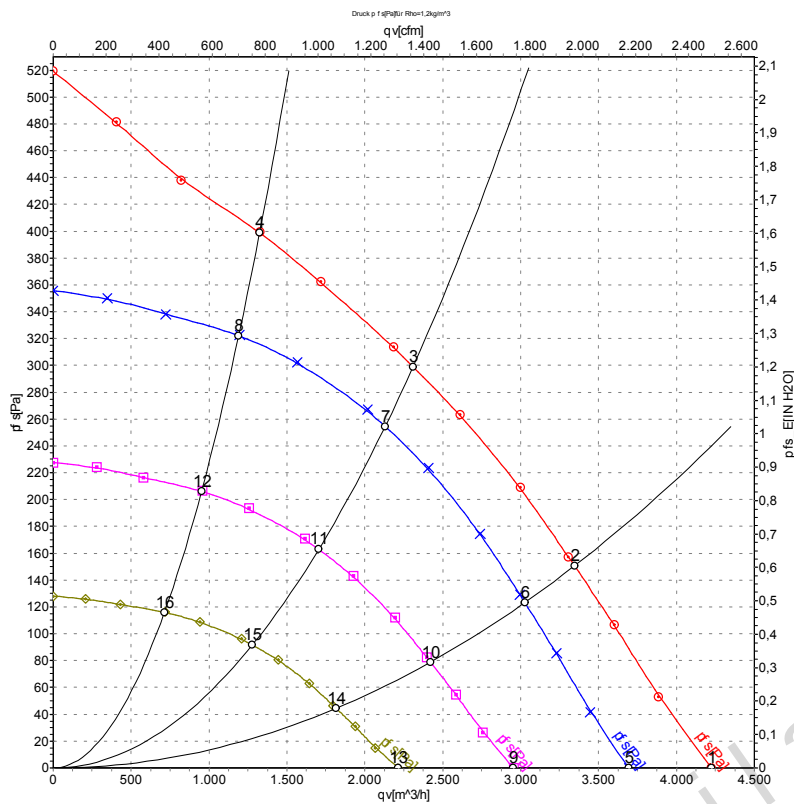


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Charts: Air flow 50 Hz



Measurement: LU-113467

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: L_{wA} measured as per ISO 13347 /
L_{pA} 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	L _{pA_{in}}	L _{wA_{in}}	L _{wA_{out}}	qv	p _{fs}
	V	Hz	min ⁻¹	W	A	dB(A)	dB(A)	dB(A)	m³/h	Pa
1	230	50	1430	274	1.67	68	75	79	4225	0
2	230	50	1380	324	1.94	63	71	75	3345	150
3	230	50	1350	355	2.20	61	69	73	2310	300
4	230	50	1390	320	1.93	63	71	76	1325	400
5	230	50	1250	183	1.12	65	72	77	3695	0
6	230	50	1250	240	1.44	61	69	73	3025	123
7	230	50	1250	275	1.64	59	67	72	2130	255
8	230	50	1250	233	1.40	61	68	73	1190	323
9	230	50	1000	94	0.57	60	67	72	2955	0
10	230	50	1000	123	0.74	56	64	68	2420	79
11	230	50	1000	141	0.84	54	62	67	1705	163
12	230	50	1000	119	0.72	56	64	69	950	207
13	230	50	750	40	0.24	54	61	65	2215	0
14	230	50	750	52	0.31	50	57	62	1815	44
15	230	50	750	59	0.35	48	56	61	1280	92
16	230	50	750	50	0.30	50	57	62	715	116

U = Supply voltage · f = Frequency · n = Speed · P_{ed} = Power input · I = Current draw · L_{pA_{in}} = Sound pressure level inlet side · L_{wA_{in}} = Sound power level inlet side · L_{wA_{out}} = Sound power level outlet side

qv = Air flow · p_{fs} = Pressure increase