R3G400-AC28-71

EC centrifugal fan

backward-curved, single-intake



ebm-papst Mulfingen GmbH & Co. KG
Bachmühle 2 · D-74673 Mulfingen
Phone +49 7938 81-0
Fax +49 7938 81-110
info1@de.ebmpapst.com
www.ebmpapst.com

Limited partnership · Headquarters Mulfingen
Amtsgericht (court of registration) Stuttgart · HRA 590344

General partner Elektrobau Mulfingen GmbH · Headquarters Mulfingen
Amtsgericht (court of registration) Stuttgart · HRB 590142

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
Method of obtaining data		ml
Speed (rpm)	min^{-1}	1300
Power consumption	W	355
Current draw	A	2.2
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	35

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 (EN 17166)

		Actual	Req. 2015
01 Overall efficiency η_{es}	%	58.2	46.7
02 Measurement category		A	
03 Efficiency category		Static	
04 Efficiency grade N		73.5	62
05 Variable speed drive		Yes	

09 Power consumption P_{ed}	kW	0.34
09 Air flow q_v	m^3/h	2615
09 Pressure increase p_{fs}	Pa	251
10 Speed (rpm) n	min^{-1}	1355
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-113467

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Technical description

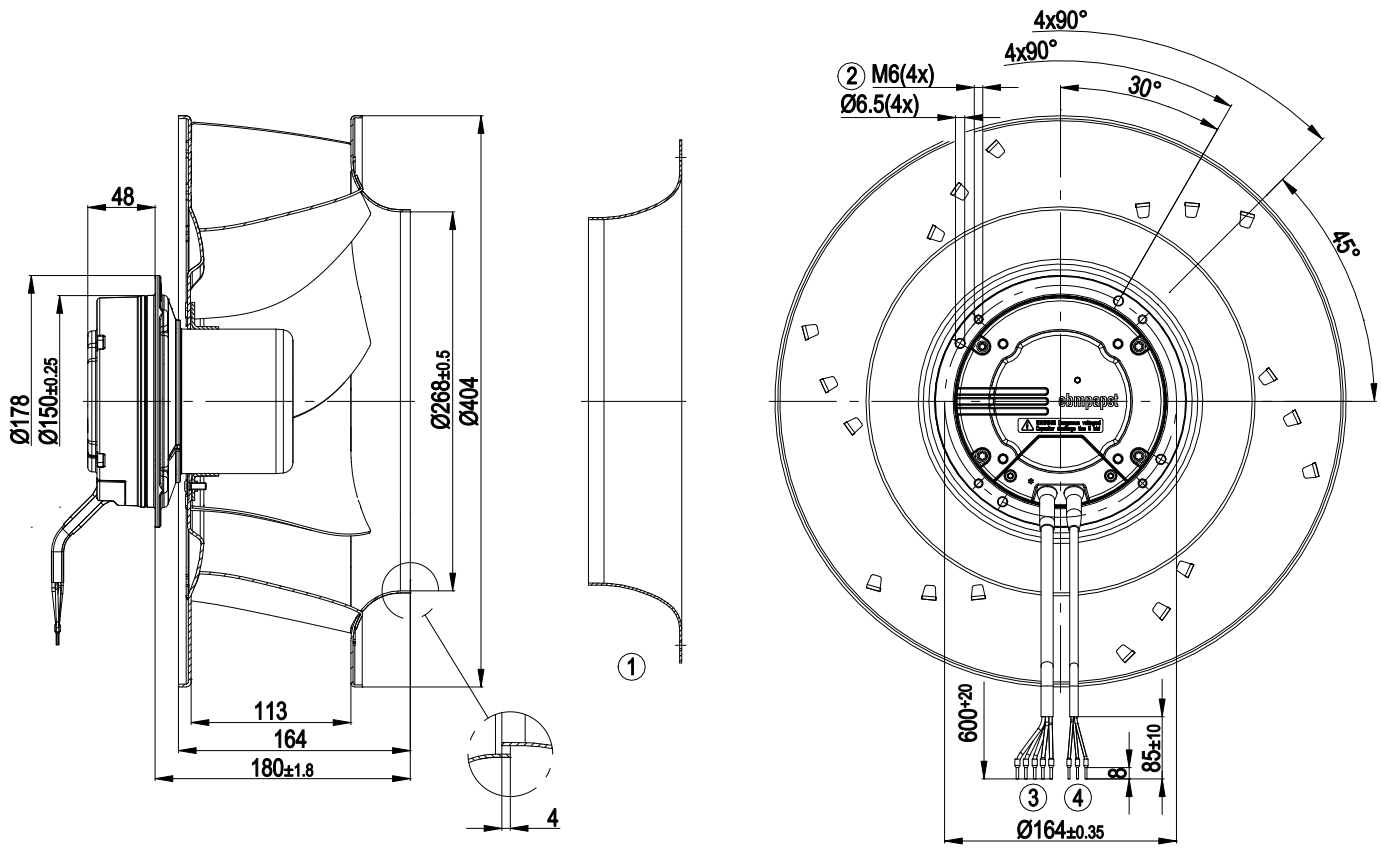
Weight	6 kg
Size	400 mm
Motor size	84
Rotor surface	Painted black
Electronics housing material	Die-cast aluminum
Impeller material	Sheet aluminum
Number of blades	6
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	IP54
Insulation class	"B"
Moisture (F) / Environmental (H) protection 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 bottom; rotor on top 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 circuit feedback	According to EN 61000-3-2/3
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 + CAN/CSA-E60730-1; CCC; EAC; UL 1004-3 + 60730-1

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Product drawing



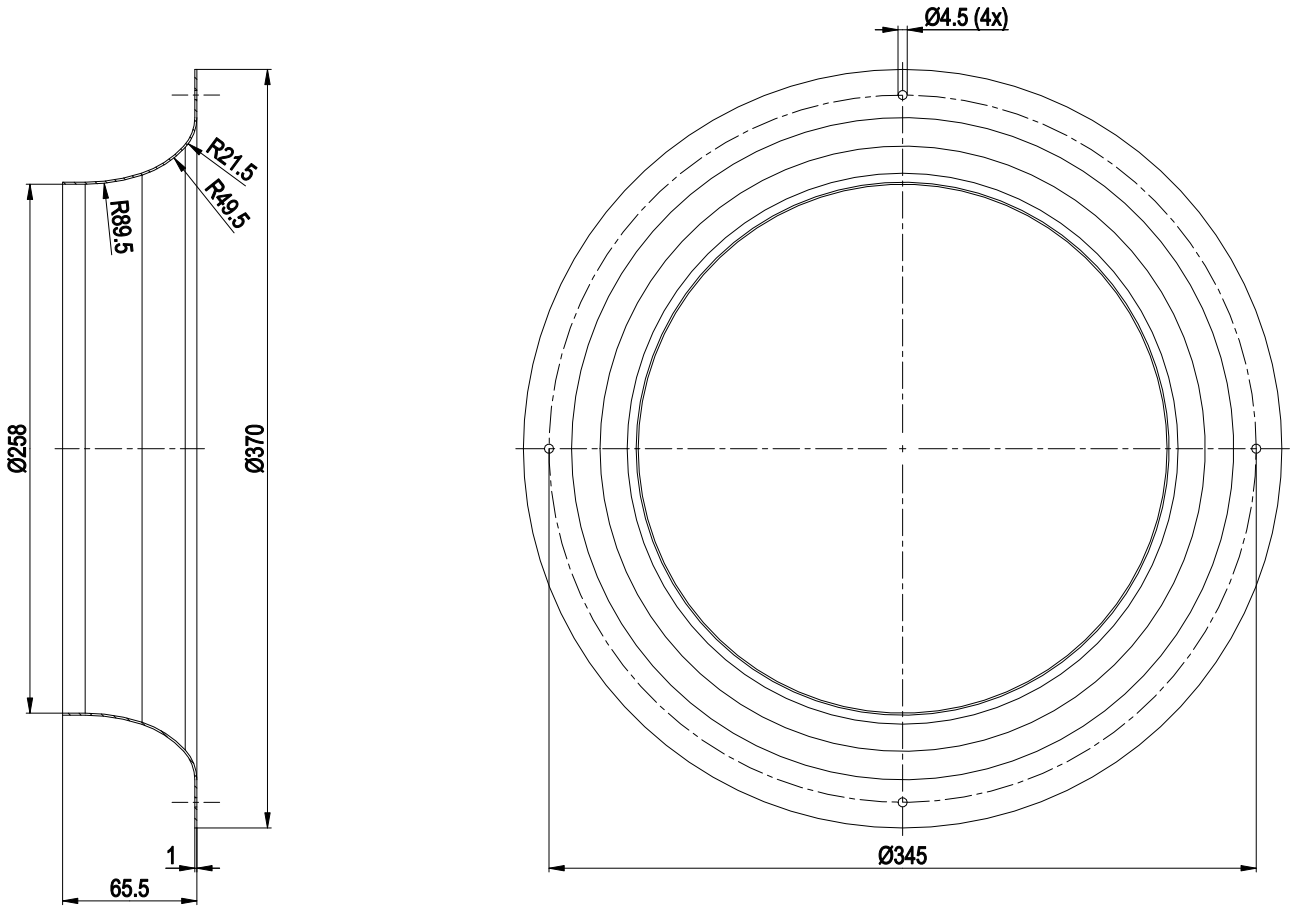
1	Accessory part: inlet ring 54476-2-4013 not included in scope of delivery
2	Max. clearance for screw 10 mm
3	Cable PVC AWG18, 5x crimped ferrules
4	Cable PVC AWG22, 3x crimped ferrules

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Accessory part



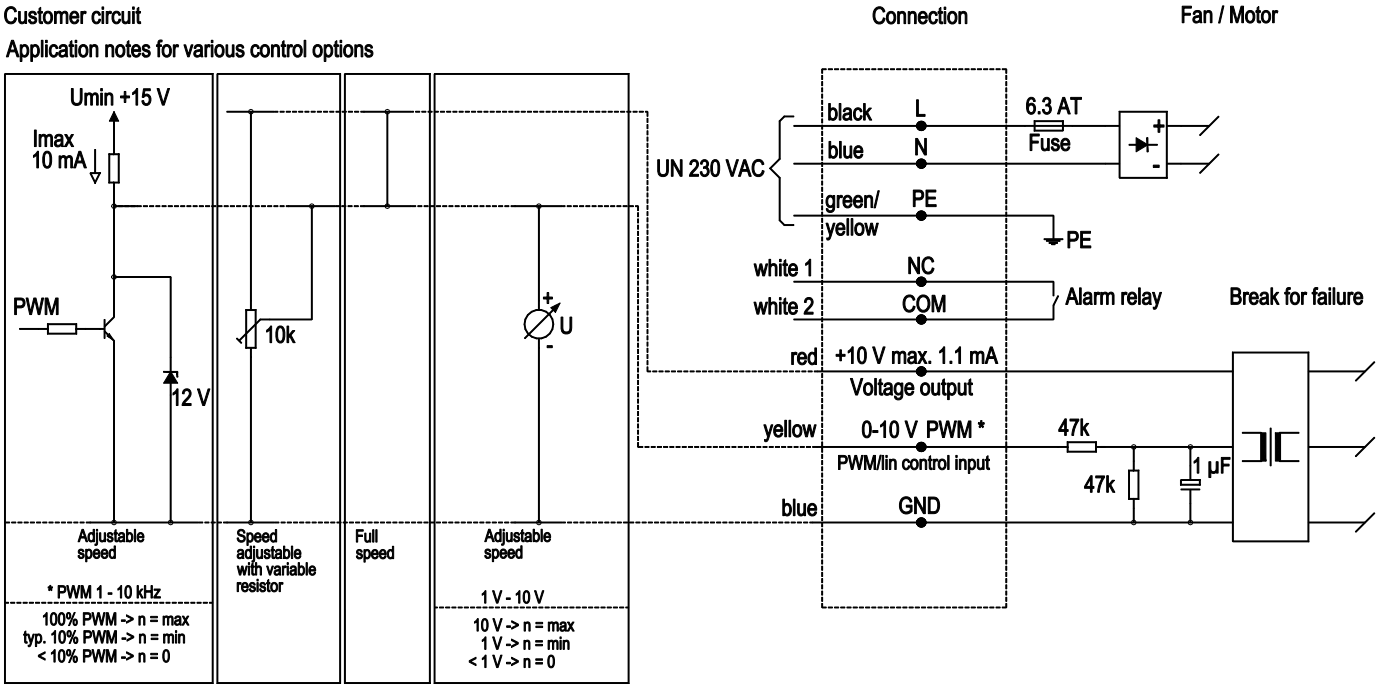
Inlet ring 54476-2-4013

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Connection diagram

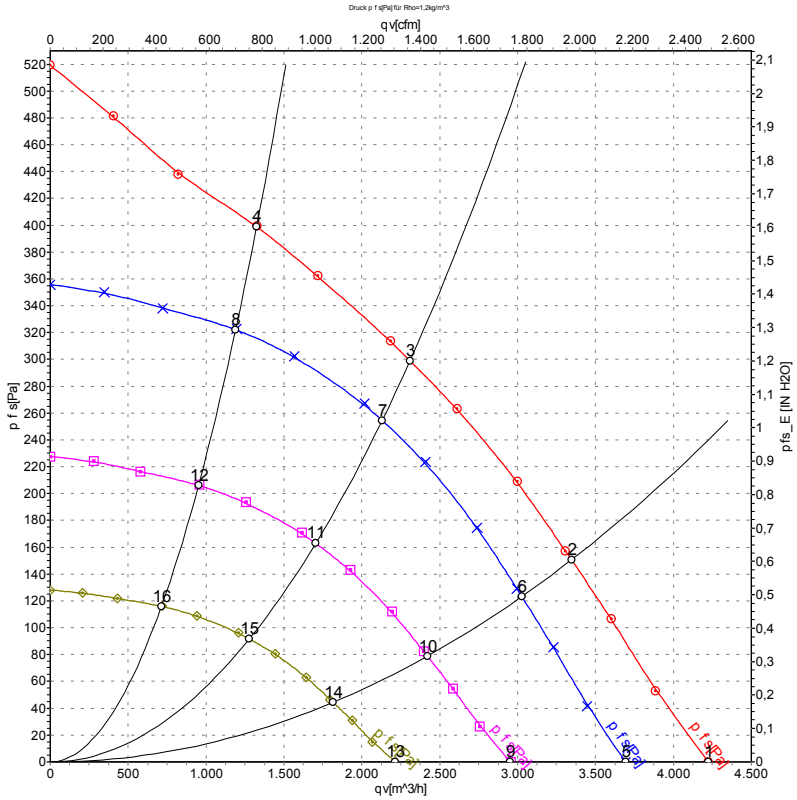


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Curves: Air performance 50 Hz



Measurement: LU-113467-1

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}	LwA_{out}	q_V	p_{fs}	q_V	p_{fs}
	V	Hz	min^{-1}	W	A	dB(A)	dB(A)	dB(A)	m^3/h	Pa	cfm	in. wg
1	230	50	1430	274	1.67	68	75	79	4225	0	2485	0.00
2	230	50	1380	324	1.94	63	71	75	3345	150	1970	0.60
3	230	50	1350	355	2.20	61	69	73	2310	300	1360	1.20
4	230	50	1390	320	1.93	63	71	76	1325	400	780	1.61
5	230	50	1250	183	1.12	65	72	77	3695	0	2175	0.00
6	230	50	1250	240	1.44	61	69	73	3025	123	1780	0.49
7	230	50	1250	275	1.64	59	67	72	2130	255	1255	1.02
8	230	50	1250	233	1.40	61	68	73	1190	323	700	1.30
9	230	50	1000	94	0.57	60	67	72	2955	0	1740	0.00
10	230	50	1000	123	0.74	56	64	68	2420	79	1425	0.32
11	230	50	1000	141	0.84	54	62	67	1705	163	1005	0.65
12	230	50	1000	119	0.72	56	64	69	950	207	560	0.83
13	230	50	750	40	0.24	54	61	65	2215	0	1305	0.00
14	230	50	750	52	0.31	50	57	62	1815	44	1070	0.18
15	230	50	750	59	0.35	48	56	61	1280	92	750	0.37
16	230	50	750	50	0.30	50	57	62	715	116	420	0.47

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
LwA_{out} = Sound power level outlet side · q_V = Air flow · p_{fs} = Pressure increase

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