R3G400-AD23-33

EC centrifugal fan

backward curved, single inlet

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ErP2015 EXCEEDS THE NORM

Nominal data

Type	**R3G400-AD23-33**	
Motor	**M3G084-FA**	
Nominal voltage	VDC	48
Nominal voltage range	VDC	36 .. 57
Type of data definition		fa
Speed	min^{-1}	1650
Power input	W	380
Current draw	A	8.0
Min. ambient temperature	°C	- 25
Max. ambient temperature	°C	+40

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 integrated	No
Specific ratio*	1,00

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

		Actual	Request 2013	Request 2015
Overall efficiency η_{es}		59,8	44,2	48,2
Efficiency grade N		73,6	58	62
Power input P_e	kW	0,49		
Air flow q_v	m³/h	2420		
Pressure increase p_{fs}	Pa	400		
Speed n	min^{-1}	1605		

Data established at point of optimum efficiency

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Technical features

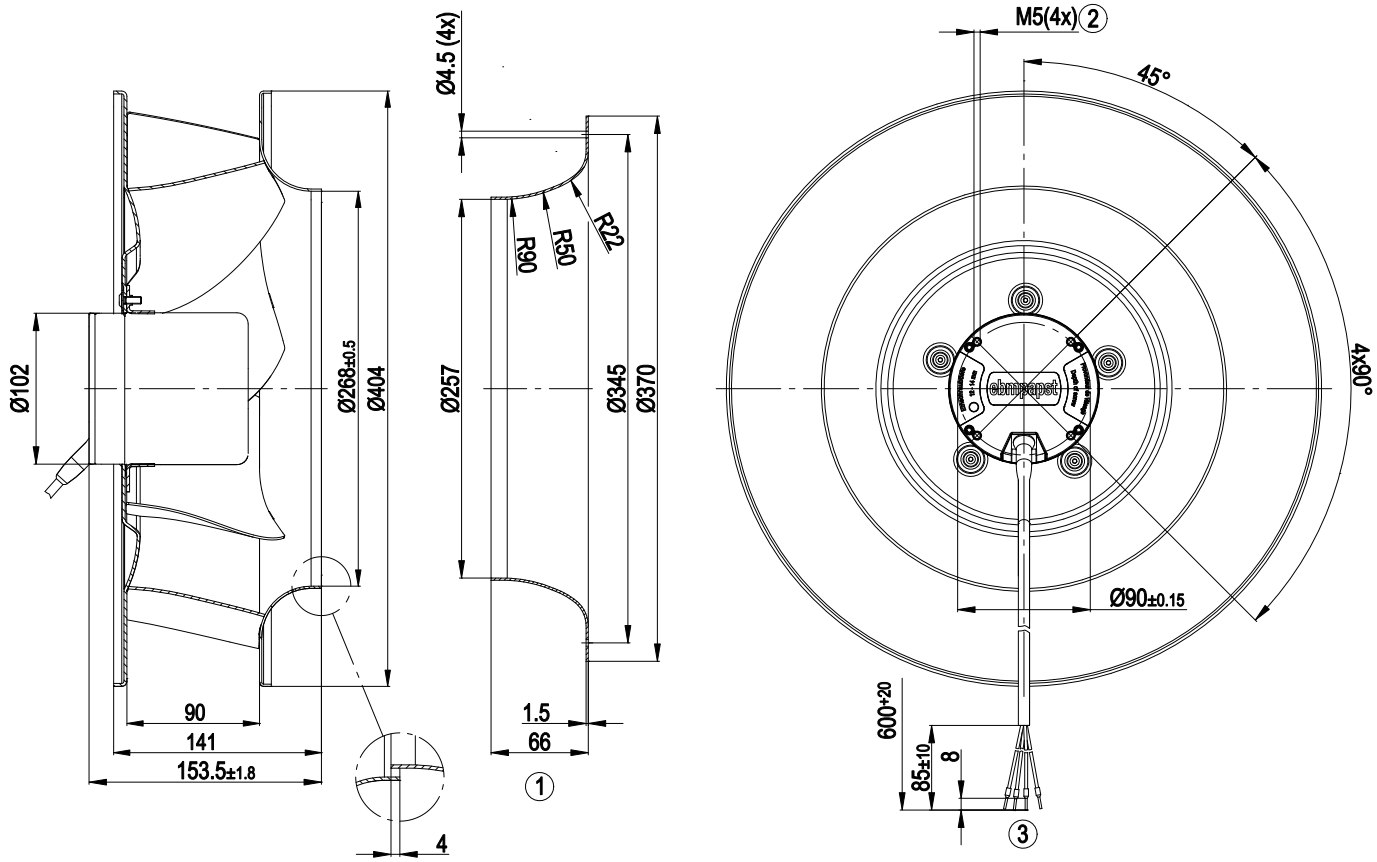
Mass	5.3 kg
Size	400 mm
Surface of rotor	Coated in black
Material of electronics housing	Die-cast aluminium
Material of impeller	Aluminium sheet
Number of blades	6
Direction of rotation	Clockwise, seen on rotor
Type of protection	IP 20
Insulation class	"B"
Humidity class	F3-1
Max. permissible ambient 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
Cooling bore / aperture	Rotor-side
Operation mode	S1
Motor bearing	Ball bearing
Technical features	- Tach output - Motor current limit - Soft start - PWM control input
Motor protection	Thermal overload protector (TOP) wired internally
Cable exit	Variable
Approval	CSA C22.2 Nr.100; UL 1004-1; VDE

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Product drawing



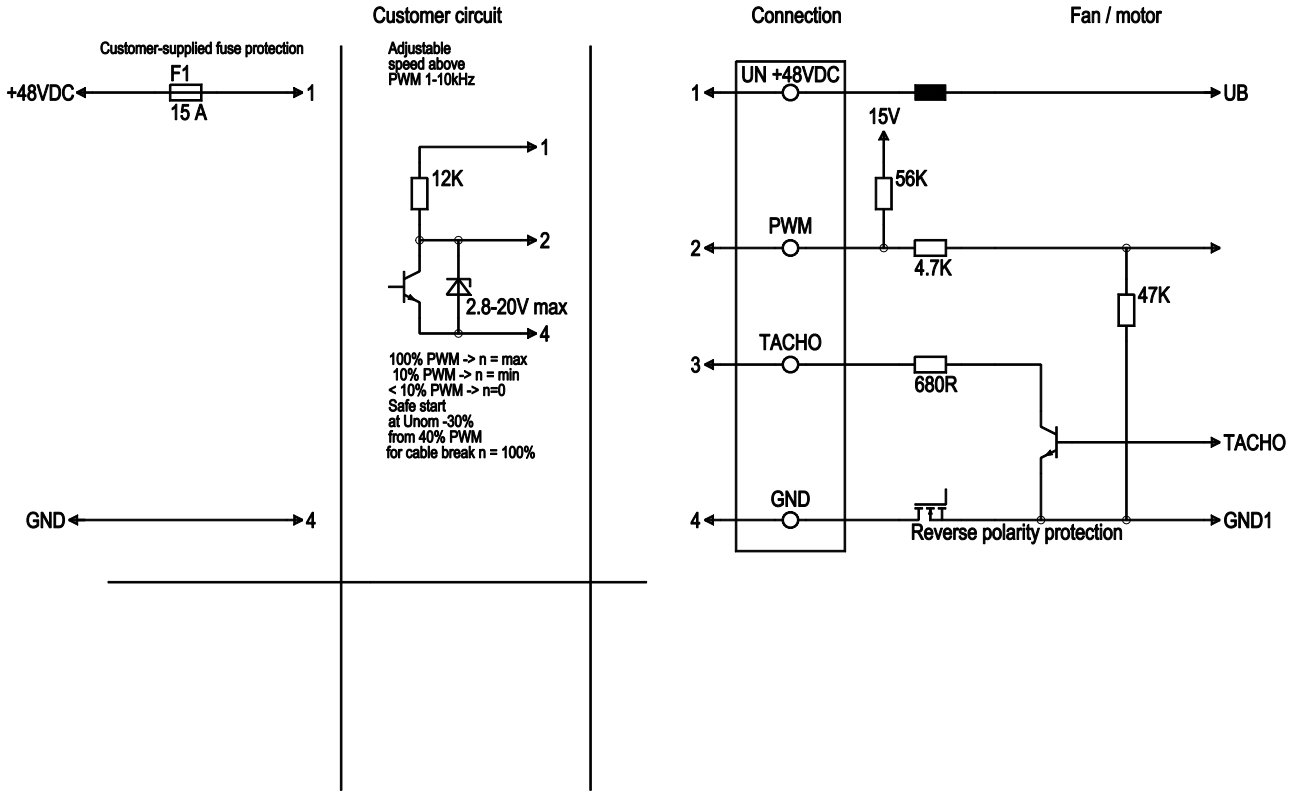
1	Accessory part: Inlet nozzle 54476-2-4013, not included in the standard scope of delivery
2	Depth of screw 12 - 14 mm
3	Connection line PVC AWG16, 4x crimped core-end sleeves

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Connection screen



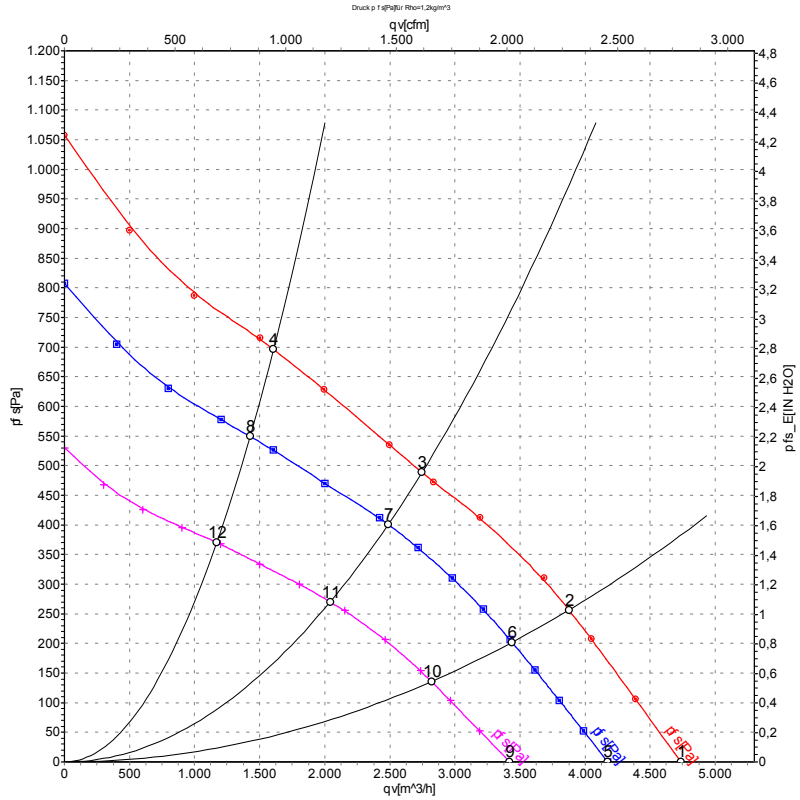
Line	No.	Signal	Colour	Function / assignment
1	1	Un +48 VDC	red	Power supply 48 VDC, residual ripple 3.5 %
1	2	PWM	yellow	PWM level 2.8V-20V / cable break detection
1	3	TACHO	white	Tacho output, open Col. 3 pulses per revolution, Isink max = 10 mA
1	4	GND	Blue	Reference ground

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Charts: Air flow



Measurement: LU-114865
Measurement: LU-114862
Measurement: LU-114868

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: LwA measured as per ISO 13347 / LpA 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	n	P_{ed}	I	qv	p_{fs}
	V	min^{-1}	W	A	m^3/h	Pa
1	57	1930	588	10.54	4735	0
2	57	1850	673	12.15	3875	256
3	57	1780	702	12.70	2745	488
4	57	1845	671	12.10	1605	697
5	48	1650	380	8.00	4175	0
6	48	1640	456	9.70	3440	200
7	48	1605	497	10.59	2485	400
8	48	1640	458	9.72	1425	550
9	36	1390	215	5.87	3420	0
10	36	1350	251	6.87	2820	136
11	36	1320	274	7.50	2040	270
12	36	1345	252	6.88	1170	371

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