R3G400-AD20-30

EC centrifugal fan

backward curved, single inlet



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
County court Stuttgart · HRA 590344

General partner Elektrobau Mulfingen GmbH · Headquarters Mulfingen
County court Stuttgart · HRB 590142

ErP2015 EXCEEDS THE NORM

Nominal data

Type	**R3G400-AD20-30**	
Motor	**M3G084-FA**	
Nominal voltage	VDC	48
Nominal voltage range	VDC	36 .. 57
Type of data definition		fa
Speed	min^{-1}	1290
Power input	W	200
Current draw	A	4.2
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	60

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 Pa

		Actual	Request 2013	Request 2015
Overall efficiency η_{es}	%	62.9	40.8	44.8
Efficiency grade N		80.1	58	62
Power input P_e	kW	0.23		
Air flow q_v	m^3/h	1680		
Pressure increase p_{fs}	Pa	275		
Speed n	min^{-1}	1260		

Data definition with optimum efficiency. LU-56162
The ErP data is determined using a motor-impeller combination in a standardised measurement configuration.

ebmpapst

EC centrifugal fan

backward curved, single inlet

Technical features

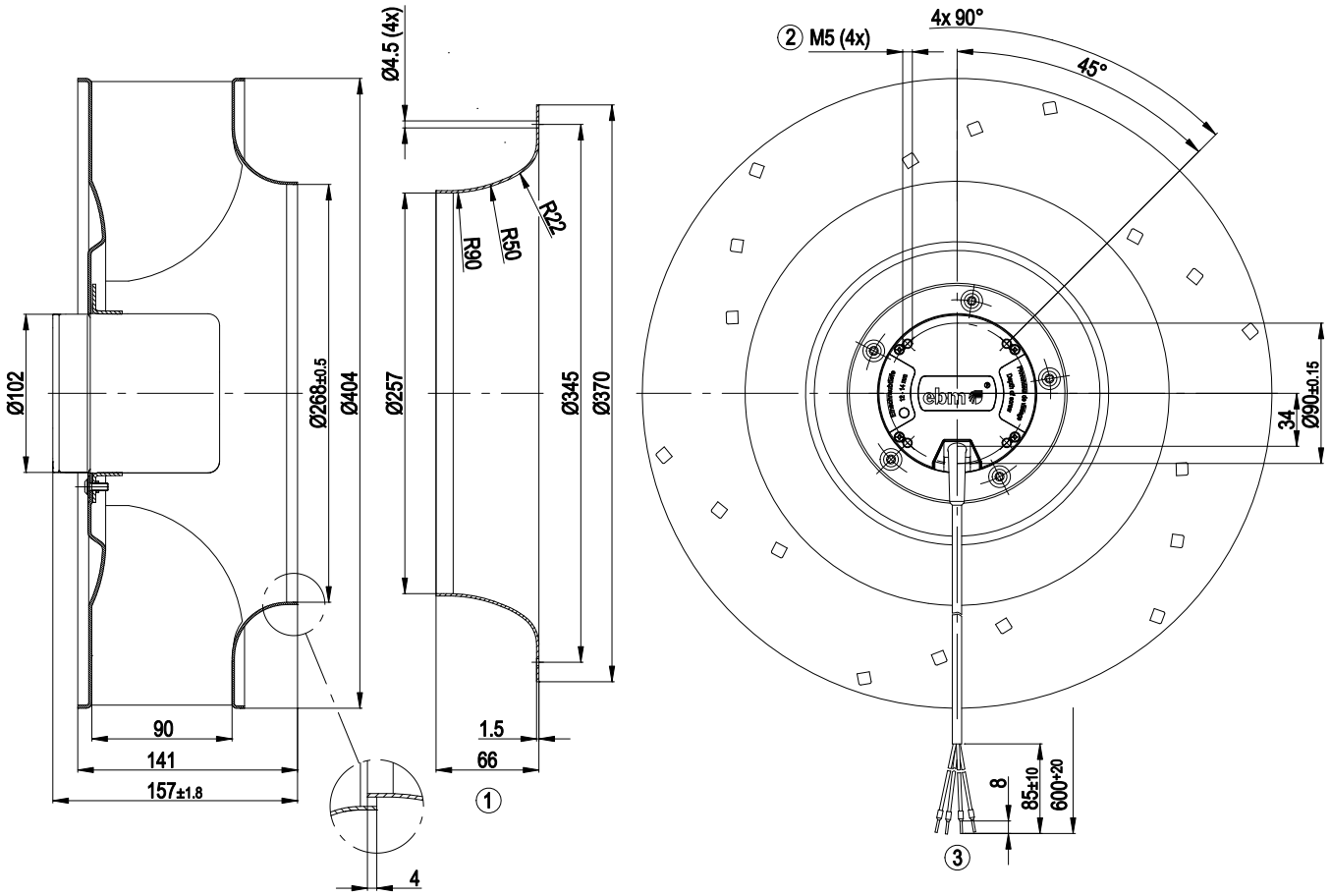
Mass	4.9 kg
Size	400 mm
Surface of rotor	Coated in black
Material of electronics housing	Die-cast aluminium
Material of impeller	Aluminium sheet
Number of blades	6
Direction of rotation	Clockwise, seen on rotor
Type of protection	IP 42
Insulation class	"B"
Max. permissible ambient motor temp. (transp./ storage)	+80 °C
Min. permissible ambient motor temp. (transp./storage)	-40 °C
Mounting position	Any
Condensate discharge holes	None
Operation mode	S1
Motor bearing	Ball bearing
Technical features	- Tach output - Motor current limit - Soft start - Control input 0-10 VDC / PWM - Control interface with SELV potential safely disconnected from the mains - Over-temperature protected motor
EMC interference immunity	Acc. to EN 61000-6-2 (industrial environment)
EMC interference emission	Acc. to EN 55022 (Class B)
Motor protection	Thermal overload protector (TOP) wired internally
Cable exit	Variable
Product conforming to standard	EN 60950-1
Approval	CCC; CSA C22.2 Nr.100; EAC; UL 1004-1

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

EC centrifugal fan

backward curved, single inlet

Product drawing



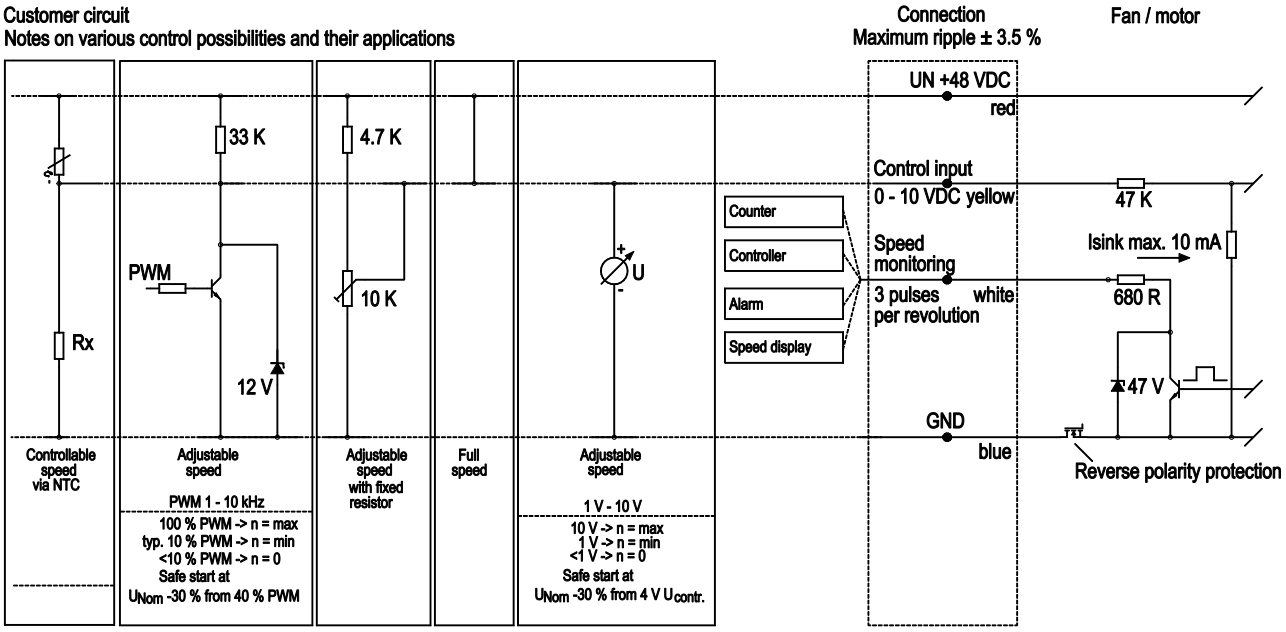
1	Accessory part: Inlet nozzle 54476-2-4013, not included in the standard scope of delivery
2	Depth of screw max. 14 mm
3	Connection line PVC AWG16, 4x crimped core-end sleeves

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

EC centrifugal fan

backward curved, single inlet

Connection screen

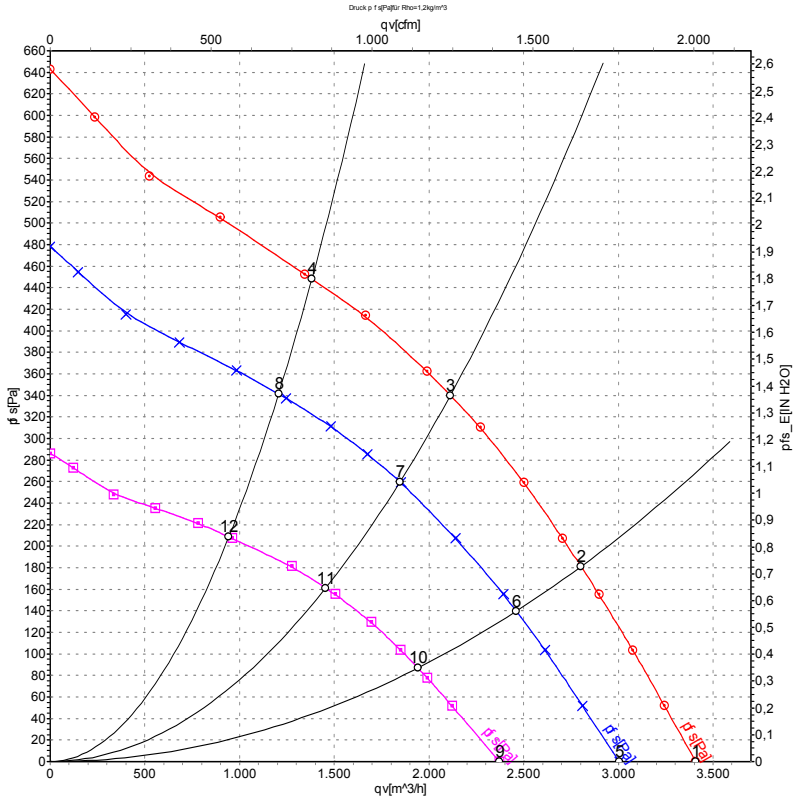


ebm-papst Mulfingen GmbH & Co. KG · Bachmühle 2 · D-74673 Mulfingen · Phone +49 (0) 7938 81-0 · Fax +49 (0) 7938 81-110 · info1@de.ebmpapst.com · www.ebmpapst.com

EC centrifugal fan

backward curved, single inlet

Charts: Air flow



Measurement: LU-56160
Measurement: LU-56162
Measurement: LU-56166

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	1480	307	5.44	3410	0
2	57	1445	348	6.20	2800	180
3	57	1440	353	6.28	2115	340
4	57	1465	325	5.77	1380	452
5	48	1290	200	4.20	3005	0
6	48	1260	229	4.82	2460	140
7	48	1255	234	4.93	1845	260
8	48	1280	214	4.50	1205	340
9	36	1010	96	2.70	2370	0
10	36	995	111	3.11	1940	87
11	36	990	114	3.20	1455	161
12	36	1005	105	2.94	945	209

U = Supply voltage · n = Speed · P_{ed} = Power input · I = Current draw · qv = Air flow · p_{fs} = Pressure increase

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