R3G400-AD09-10

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-AD09-10**	
Motor	**M3G084-FA**	
Nominal voltage	VDC	48
Nominal voltage range	VDC	36 .. 60
Type of data definition		fa
Speed	min^{-1}	1720
Power input	W	660
Current draw	A	12
Min. ambient temperature	°C	- 25
Max. ambient temperature	°C	+ 50

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}		57.8	44	48
Efficiency grade N		71.8	58	62
Power input P_e	kW	0.46		
Air flow q_v	m³/h	2175		
Pressure increase p_{fs}	Pa	400		
Speed n	min^{-1}	1560		

Data established at point of optimum efficiency

ebmpapst

EC centrifugal fan

backward curved, single inlet

Technical features

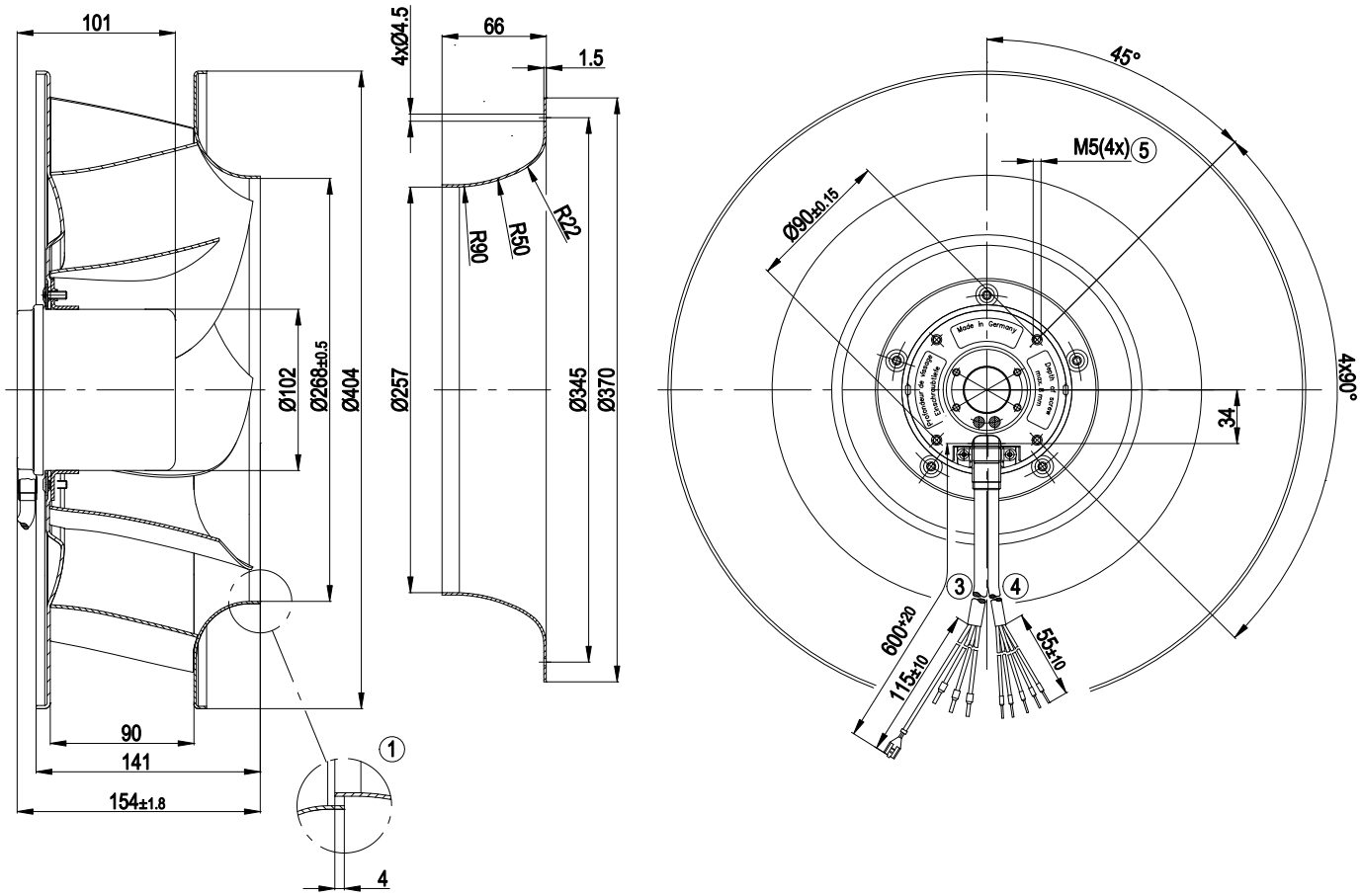
Mass	5.15 kg
Size	400 mm
Surface of rotor	Coated in black
Material of impeller	Sheet steel, hot-dip galvanised
Number of blades	11
Direction of rotation	Clockwise, seen on rotor
Type of protection	IP 20
Insulation class	"B"
Max. permissible ambient motor temp. (transp./ storage)	+80 °C
Min. permissible ambient motor temp. (transp./storage)	-40 °C
Mounting position	Shaft horizontal or rotor on bottom; rotor on top on request
Condensate discharge holes	None, open rotor
Operation mode	S1
Motor bearing	Ball bearing
Technical features	- Control input 0-10 VDC / PWM - Tach output - Motor current limit - Soft start
Cable exit	Lateral

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



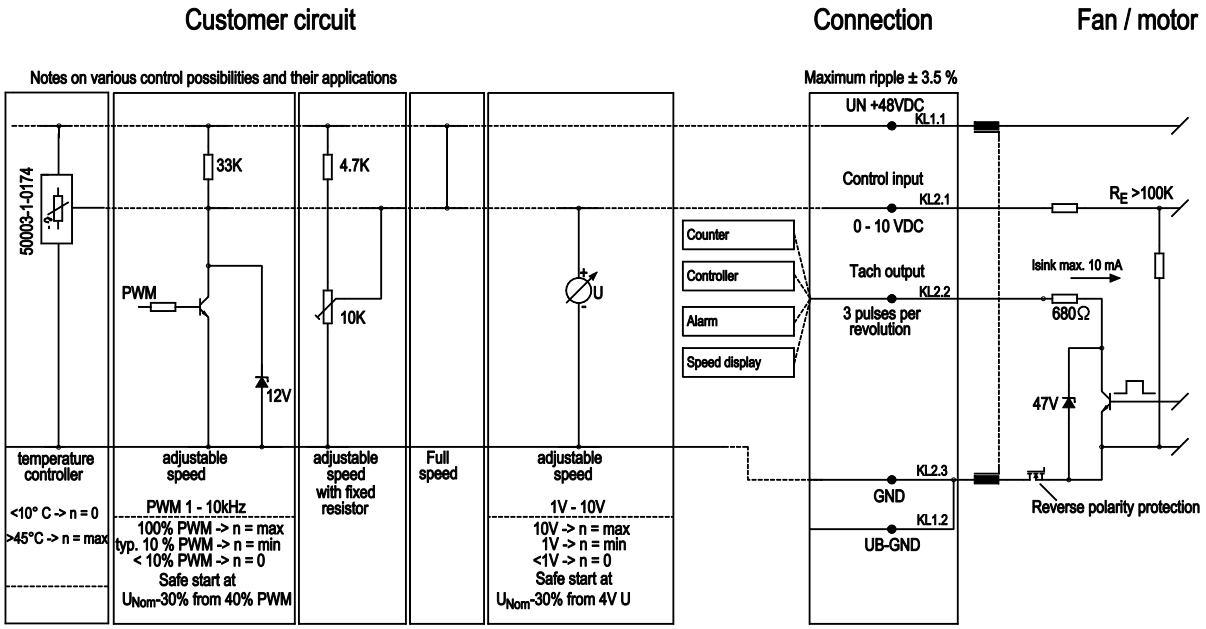
1	Accessory part: inlet nozzle 54476-2-4013 not included in the standard scope of delivery; other inlet nozzles on request
2	Accessory part: External electronics CHG045-AA01-01 not included in the standard scope of delivery
3	Connection line silicone 4 x 1.5 mm², 3 x core end sleeves and crimped receptacle for tabs 6.3 x 0.8
4	Connection line silicone 5 x 0.5 mm², 5 x crimped core end sleeves
5	Depth of screw max. 8 mm

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

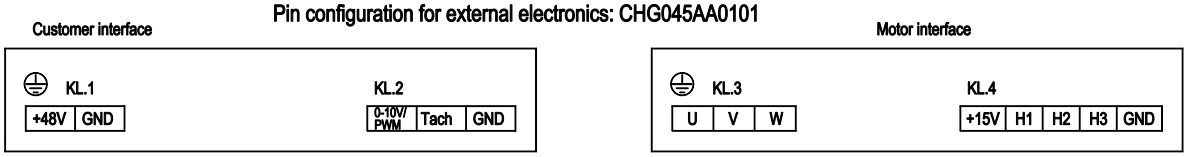
EC centrifugal fan

backward curved, single inlet

Connection screen



Pin configuration for external electronics: CHG045AA0101



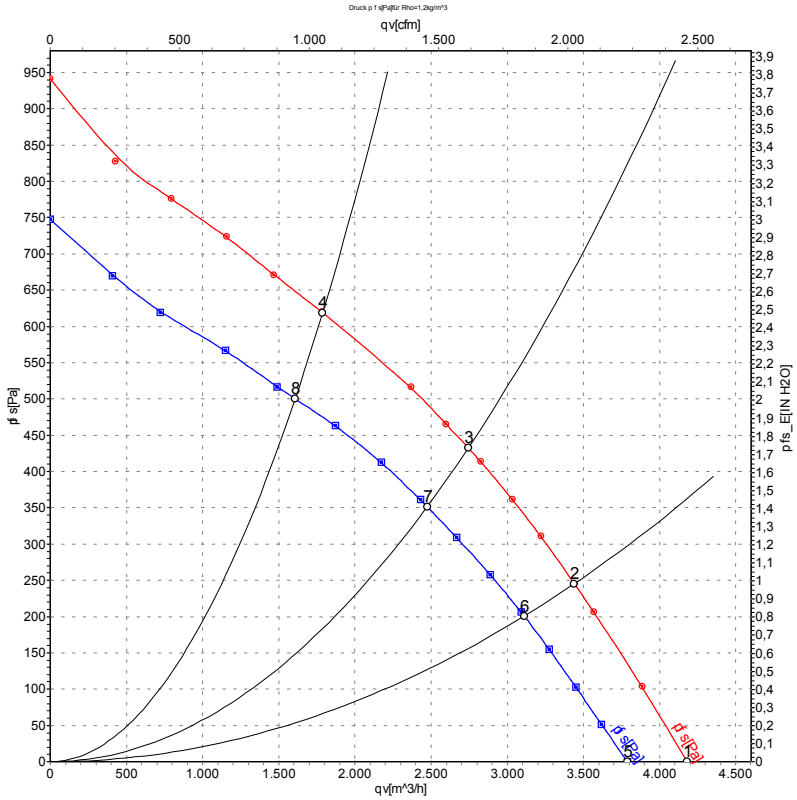
No.	Pin	Signal	Function / assignment
KL.3		+15V	red
KL.3		H1	orange
KL.3		H2	brown
KL.3		H3	yellow
KL.3		GND	blue
KL.4		U	black
KL.4		V	blue
KL.4		W	brown
PE		PE	green/yellow

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-43338
Measurement: LU-43337

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	55.2	1785	578	10.54	4180	0
2	55.2	1735	641	11.70	3440	245
3	55.2	1720	660	12.00	2745	432
4	55.2	1760	606	11.07	1790	620
5	48	1605	410	8.59	3790	0
6	48	1565	458	9.60	3110	200
7	48	1555	470	9.86	2475	350
8	48	1580	435	9.12	1605	500

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