R3G400-AD15-13

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-AD15-13**	
Motor	**M3G084-FA**	
Nominal voltage	VDC	110
Nominal voltage range	VDC	77 .. 115
Type of data definition		fa
Speed	min^{-1}	1670
Power input	W	450
Current draw	A	4.1
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	Yes
Specific ratio*	1.00

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

		Actual	Request 2013	Request 2015
Overall efficiency η_{es}	%	60.2	40.4	44.4
Efficiency grade N		77.8	58	62
Power input P_e	kW	0.21		
Air flow q_v	m³/h	1740		
Pressure increase p_{fs}	Pa	240		
Speed n	min^{-1}	1205		

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

EC centrifugal fan

backward curved, single inlet

Technical features

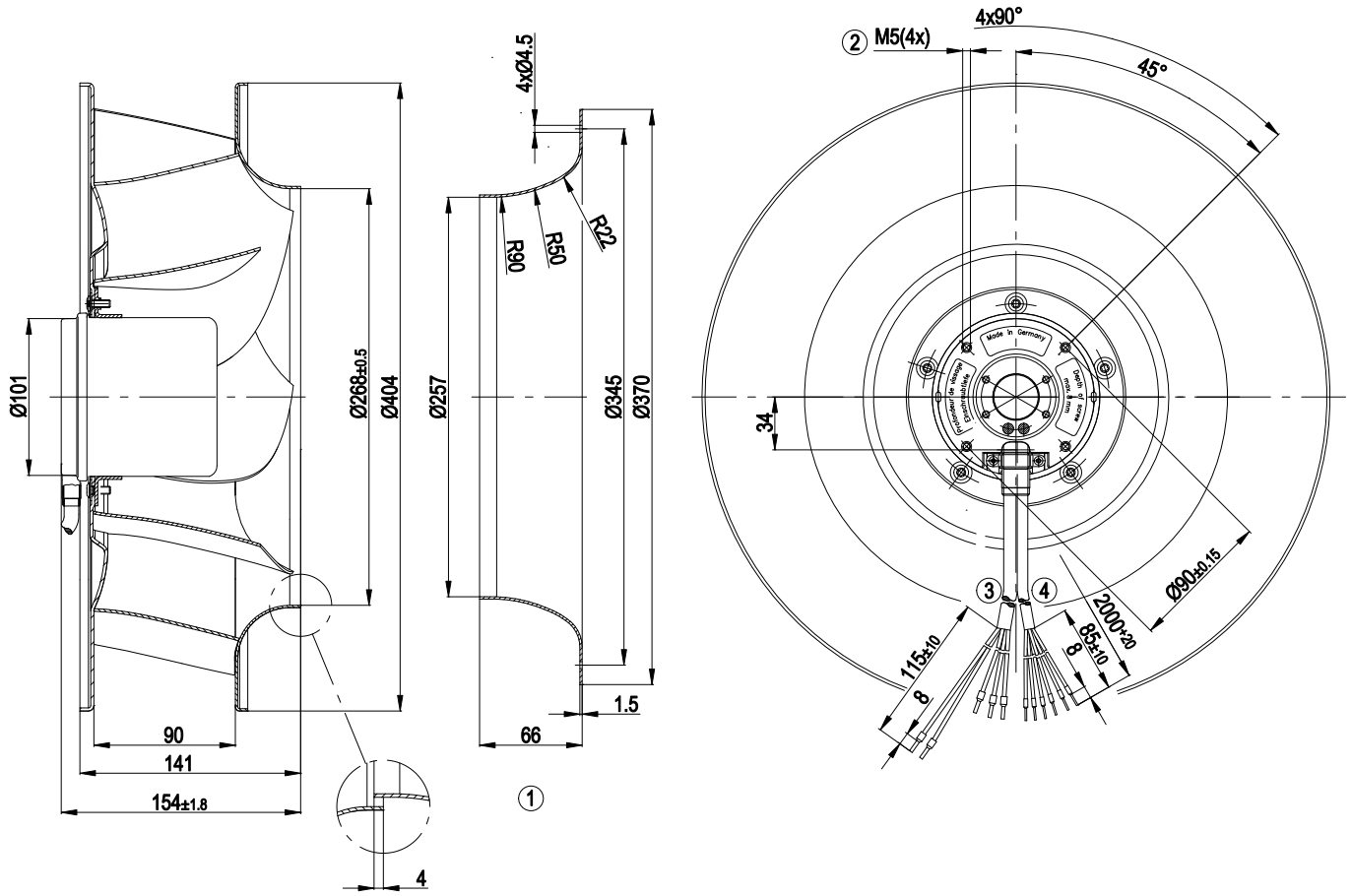
Mass	5.4 kg
Size	400 mm
Surface of rotor	Coated in black
Material of impeller	Aluminium sheet
Number of blades	6
Direction of rotation	Clockwise, seen on rotor
Type of protection	IP 22
Insulation class	"B"
Humidity class	F4-1
Max. permissible ambient motor temp. (transp./ storage)	+80 °C
Min. permissible ambient motor temp. (transp./storage)	-40 °C
Mounting position	Shaft horizontal or rotor on bottom; rotor on top on request
Condensate discharge holes	Rotor-side
Operation mode	S1
Motor bearing	Ball bearing
Motor protection	PTC resistor
Cable exit	Lateral
Protection class	I (if protective earth is connected by customer)

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



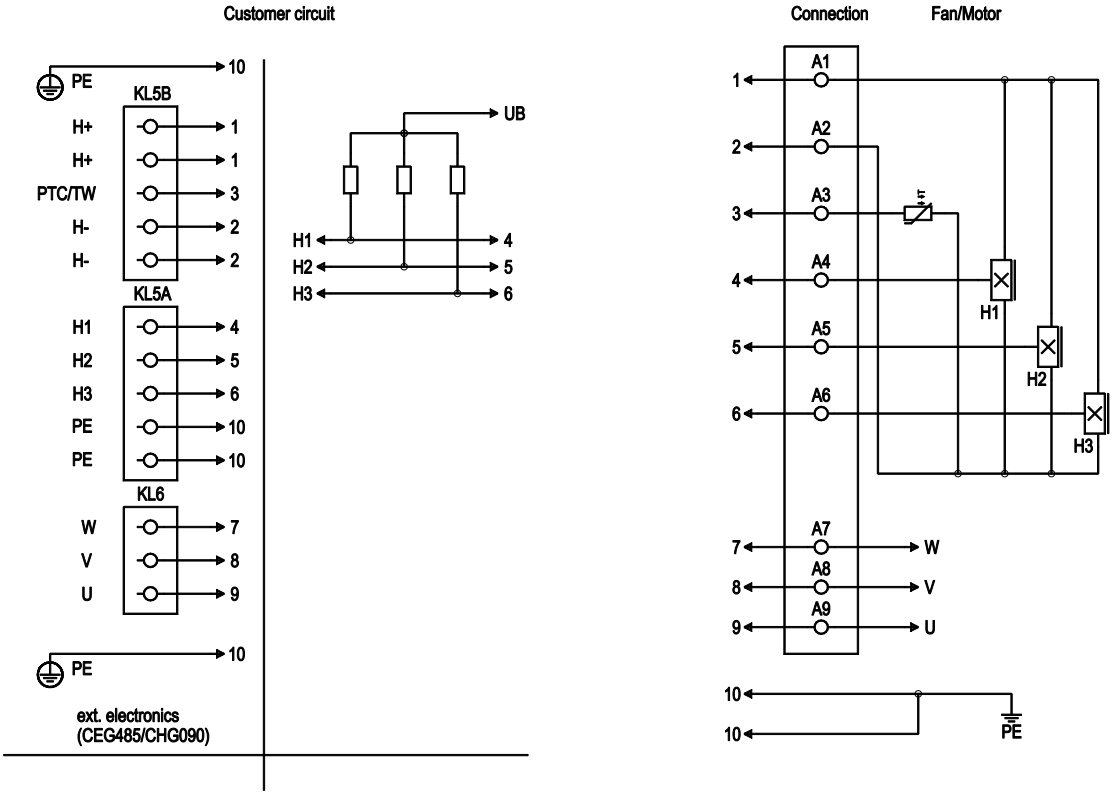
1	Accessory part: inlet nozzle 54476-2-4013 not included in the standard scope of delivery; other inlet nozzles on request
2	Depth of screw max. 8 mm
3	Connection line silicone 5x1.0 mm²; 5x crimped core-end sleeves
4	Connection line silicone 6x0.5 mm²; 6x crimped core-end sleeves
5	Accessory part: External electronics CEG485-HB50-01 not included in the standard scope of delivery

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



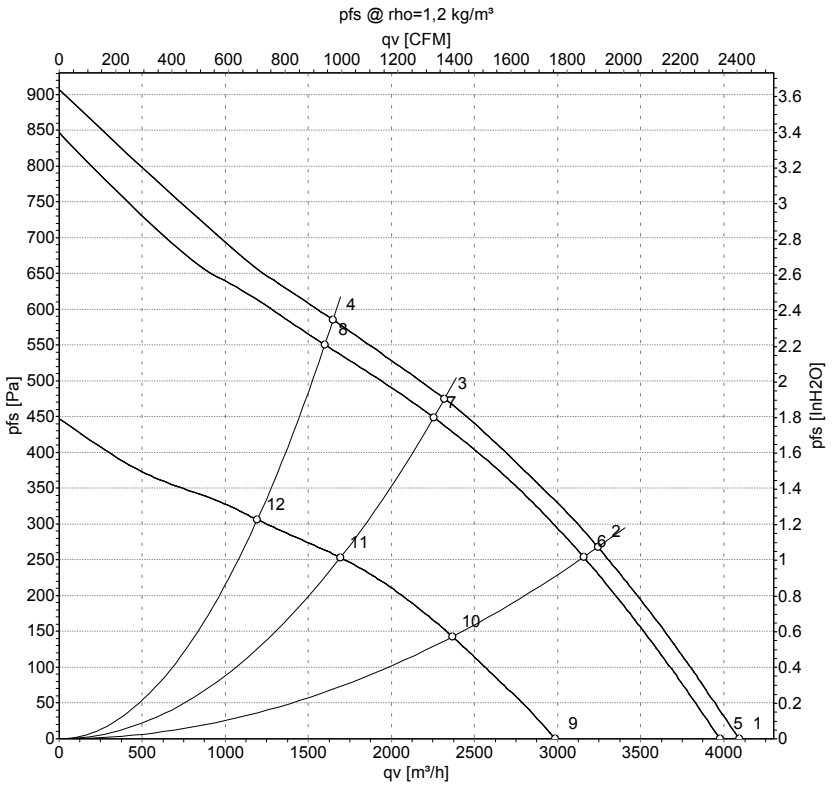
No.	Pin	Signal	Function / assignment
KL5A	4	A4	Hall 1 (orange) open collector, R to UB 4.5-24 V
KL5A	5	A5	Hall 2 (brown) open collector, R to UB 4.5-24 V
KL5A	6	A6	Hall 3 (yellow) open collector, R to UB 4.5-24 V
KL5B	1	A1	+ (red)
KL5B	2	A2	-(blue)
KL5B	3	A3	PTC (black)
KL6	7	A7	W (brown)
KL6	8	A8	V (blue)
KL6	9	A9	U (black)
-	10	-	PE (green/yellow) - 2x

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-51929
Measurement: LU-51928
Measurement: LU-51927

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

	Conn.	U	n	P_{ed}	I	qv	p_{fs}
		V	min^{-1}	W	A	m^3/h	Pa
1	Δ	115	1715	502	4.39	4095	0
2	Δ	115	1655	569	4.98	3240	268
3	Δ	115	1650	572	5.01	2320	476
4	Δ	115	1680	538	4.70	1650	585
5	Δ	110	1670	450	4.10	3975	0
6	Δ	110	1610	517	4.72	3155	250
7	Δ	110	1605	520	4.74	2255	450
8	Δ	110	1630	488	4.44	1600	550
9	Δ	77	1240	185	2.42	2985	0
10	Δ	77	1210	214	2.79	2365	143
11	Δ	77	1205	217	2.84	1695	253
12	Δ	77	1220	204	2.67	1190	306

Conn. = Connection · 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