R3G310-AN46-12

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

Nominal data

Type	**R3G310-AN46-12**	
Motor	**M3G084-FA**	
Nominal voltage	VDC	110
Nominal voltage range	VDC	77 .. 138
Type of data definition		fa
State		prelim.
Speed	min^{-1}	2950
Power input	W	570
Current draw	A	5.2
Min. ambient temperature	°C	-40
Max. ambient temperature	°C	+55

ml = max. load · me = max. efficiency · fa = running at free air · cs = customer specs · cu = customer unit
Subject to alterations

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Technical features

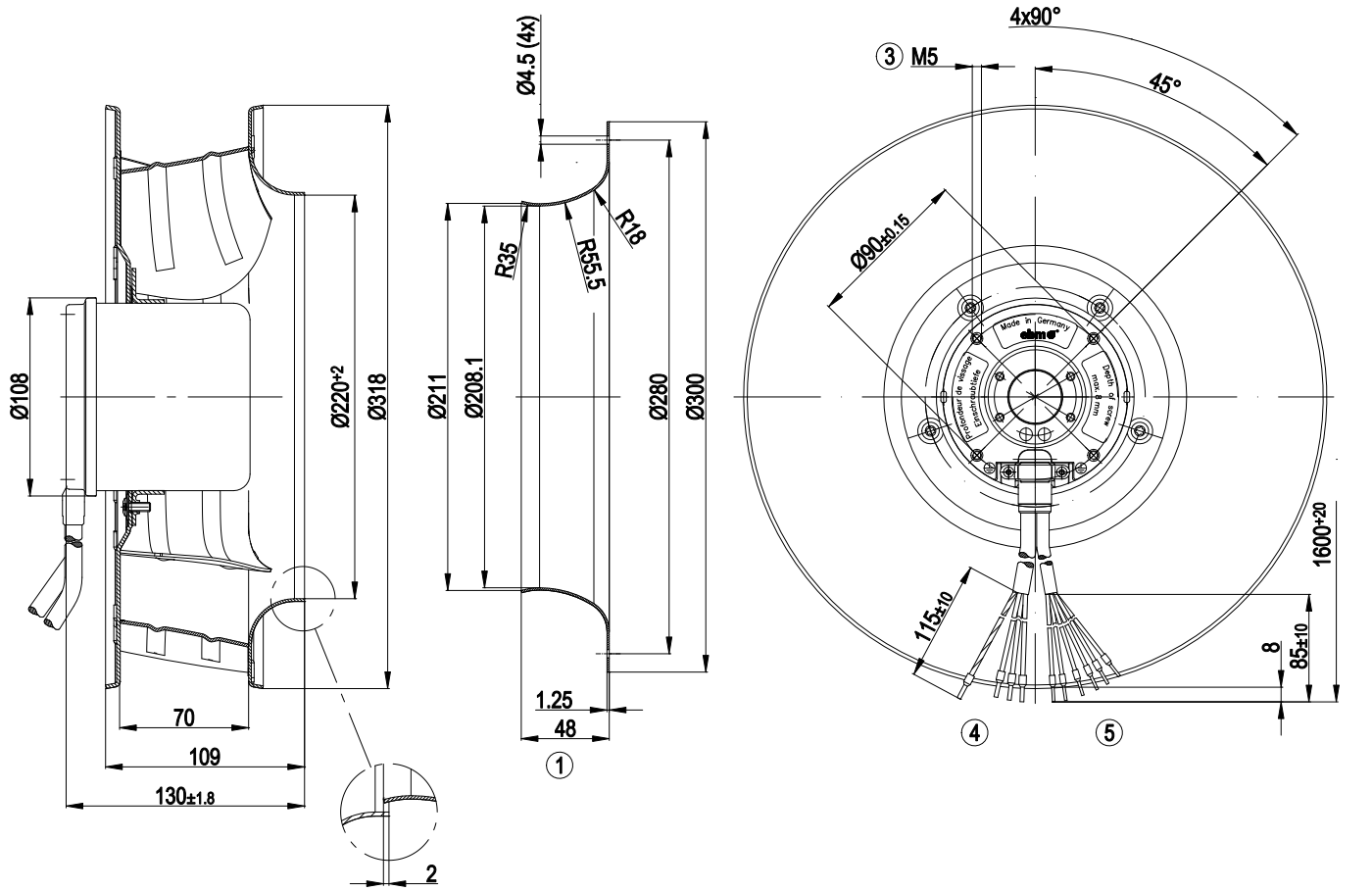
Mass	4.9 kg
Size	310 mm
Surface of rotor	Coated in black
Material of impeller	Aluminium sheet
Number of blades	6
Direction of rotation	Clockwise, seen on rotor
Type of protection	IP 42
Insulation class	"B"
Max. permissible ambient motor temp. (transp./ storage)	+80 °C
Min. permissible ambient motor temp. (transp./storage)	-40 °C
Mounting position	Shaft horizontal or rotor on top; rotor on bottom on request
Condensate discharge holes	None
Operation mode	S1
Motor bearing	Ball bearing
Motor protection	PTC resistor
Cable exit	Lateral
Protection class	I (if protective earth is connected by customer)

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Product drawing



1	Accessory part: Inlet nozzle 31050-2-4013, not included in the standard scope of delivery
2	Accessory part: External electronics CHG090-AA07-12 not included in the standard scope of delivery (not shown)
3	Depth of screw max. 8 mm
4	Connection line XLPE/XLPO 4G 1.5 mm², 5x crimped core-end sleeves
5	Connection line XLPE/XLPO 6x 0.5 mm², 6x crimped core-end sleeves

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Connection screen

Pin configuration for external electronics CHG090-AA07-12

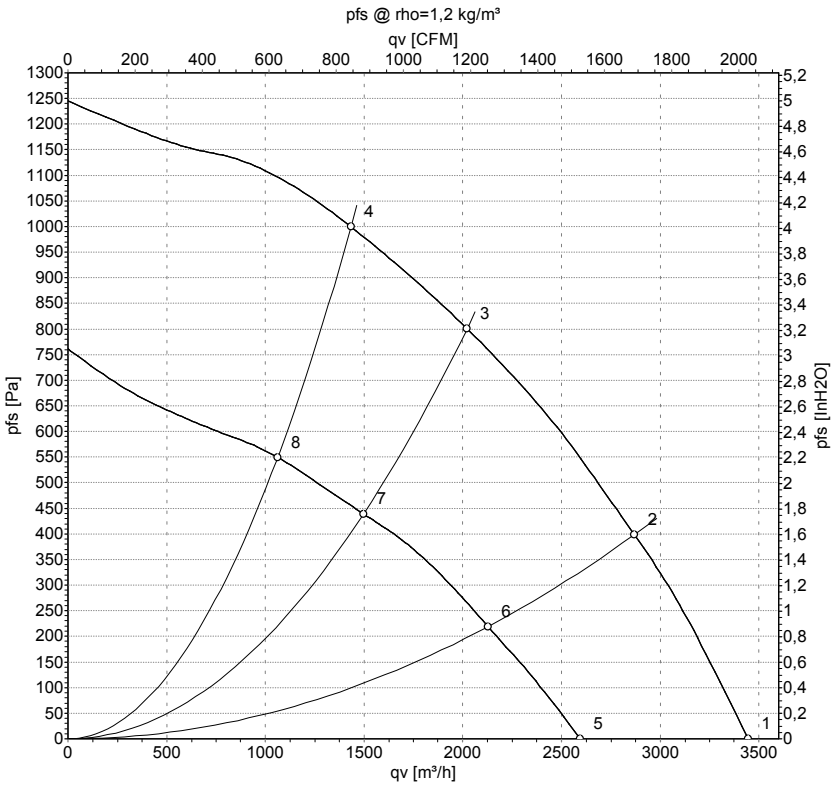
Wire colour	Cross-section [mm²]	Device connection terminal on the external electronics CHG090-AA07-12	Function
First wire			
red	0.5	KL5B, pin 1 or 2 (+15 V)	Power supply for Hall sensors (+)
blue	0.5	KL5B, pin 4 or 5 (GND)	Power supply for Hall sensors (-)
black	0.5	KL5B, pin 3 (TOP/PTC)	Temperature monitor (PTC)
orange	0.5	KL5A, pin 1 (H1)	Hall sensor 1
brown	0.5	KL5A, pin 2 (H2)	Hall sensor 2
yellow	0.5	KL5A, pin 3 (H3)	Hall sensor 3
Second wire			
black	1.5	KL6, Pin 1 (U)	Motor winding UY
blue	1.5	KL6, Pin 2 (V)	Motor winding VZ
brown	1.5	KL6, Pin 3 (W)	Motor winding WX
green / yellow	1.5	PE	Protective earth

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Charts: Air flow



Measurement: LU-131844
Measurement: LU-131846

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	110	2950	570	5.20	3445	0
2	110	2925	743	6.73	2870	400
3	110	2880	792	7.19	2020	800
4	110	2900	769	6.97	1435	1000
5	77	2240	255	3.32	2595	0
6	77	2180	310	4.03	2130	219
7	77	2150	332	4.32	1495	439
8	77	2165	320	4.17	1065	550

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

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