R3G310-AN46-12

EC centrifugal fan - RadiPac

backward curved, single inlet



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ErP2015 EXCEEDS THE NORM

Nominal data

Type	**R3G310-AN46-12**	
Motor	**M3G084-FA**	
Nominal voltage	VDC	110
Nominal voltage range	VDC	77 .. 138
Type of data definition		fa
External electronics		CHG090AA0712
Speed	min^{-1}	2960
Power input	W	600
Current draw	A	5.5
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

Data according to ErP directive

Installation category	A
Efficiency category	Static
Variable speed drive	Yes
Specific ratio*	1.01

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

		Actual	Request 2013	Request 2015
Overall efficiency η_{es}	%	61.2	46.1	50.1
Efficiency grade N		73.1	58	62
Power input P_e	kW	0.74		
Air flow q_v	m^3/h	2005		
Pressure increase p_{fs}	Pa	750		
Speed n	min^{-1}	2855		

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

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Technical features

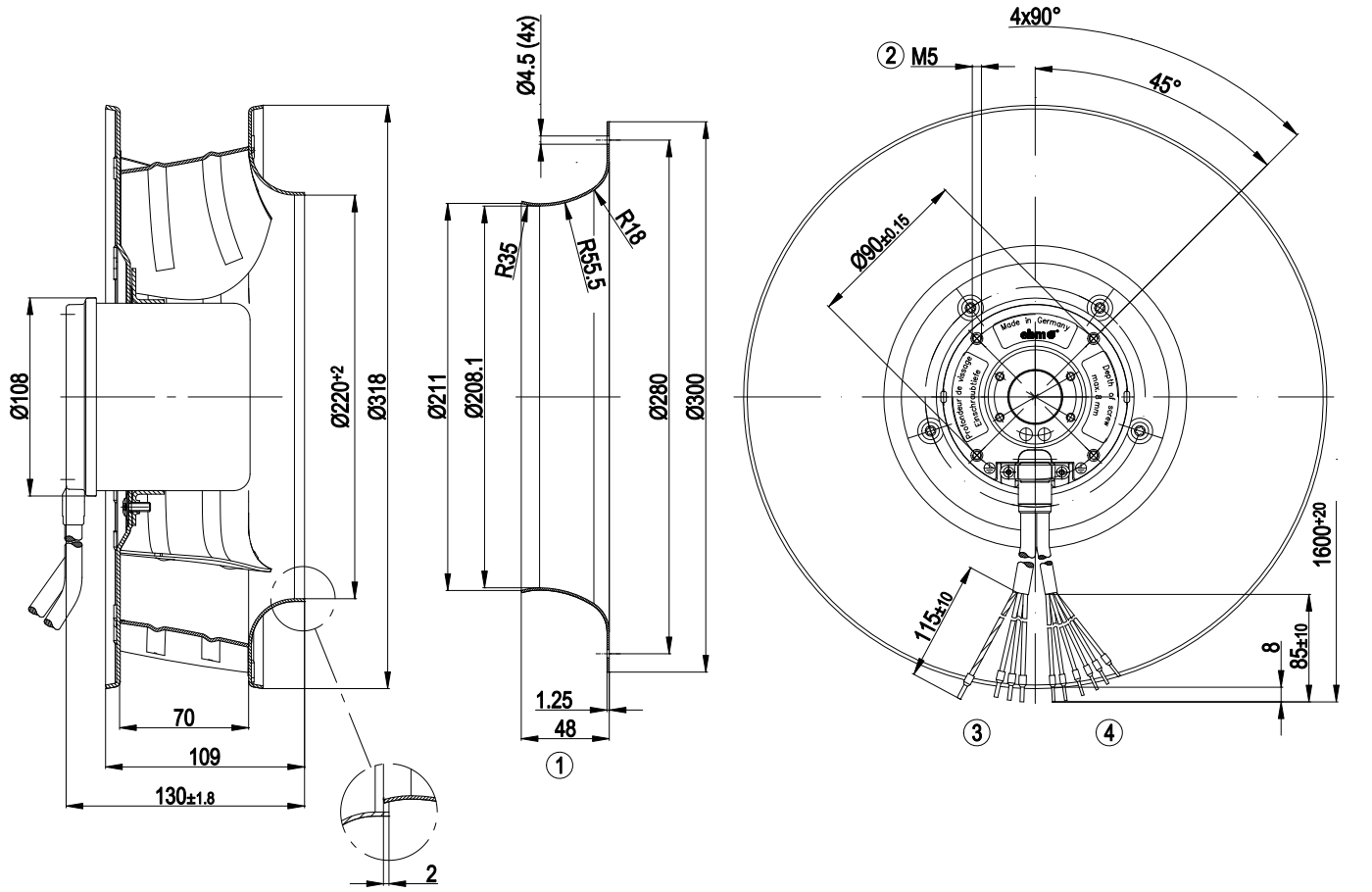
Mass	4.9 kg
Size	310 mm
Surface of rotor	Coated in black
Material of impeller	Aluminium sheet
Number of blades	6
Direction of rotation	Clockwise, seen on rotor
Type of protection	IP 42
Insulation class	"B"
Max. permissible ambient motor temp. (transp./ storage)	+80 °C
Min. permissible ambient motor temp. (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



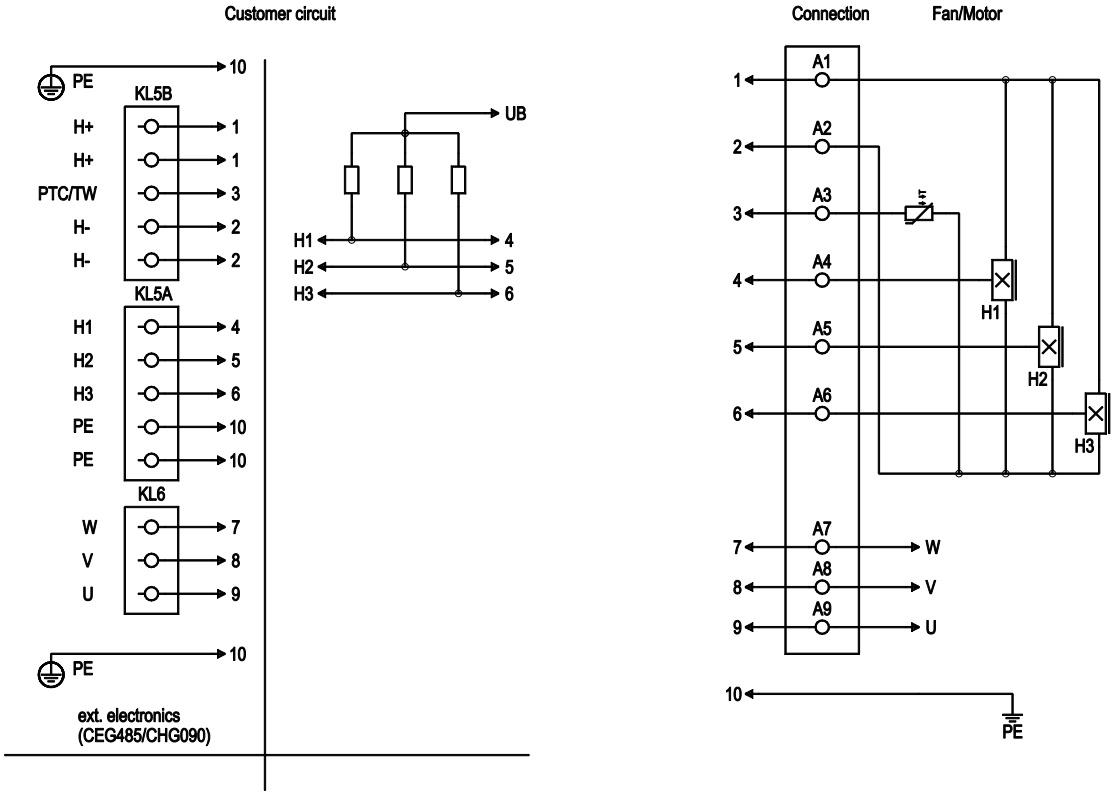
1	Accessory part: Inlet nozzle 31050-2-4013, not included in the standard scope of delivery
2	Depth of screw max. 8 mm
3	Connection line XLPE/XLPO 4G 1.5 mm², 4x crimped core-end sleeves
4	Connection line XLPE/XLPO 6x 0.5 mm², 6x crimped core-end sleeves
5	Accessory part: external electronics CHG090-AA07-12,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

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Connection screen



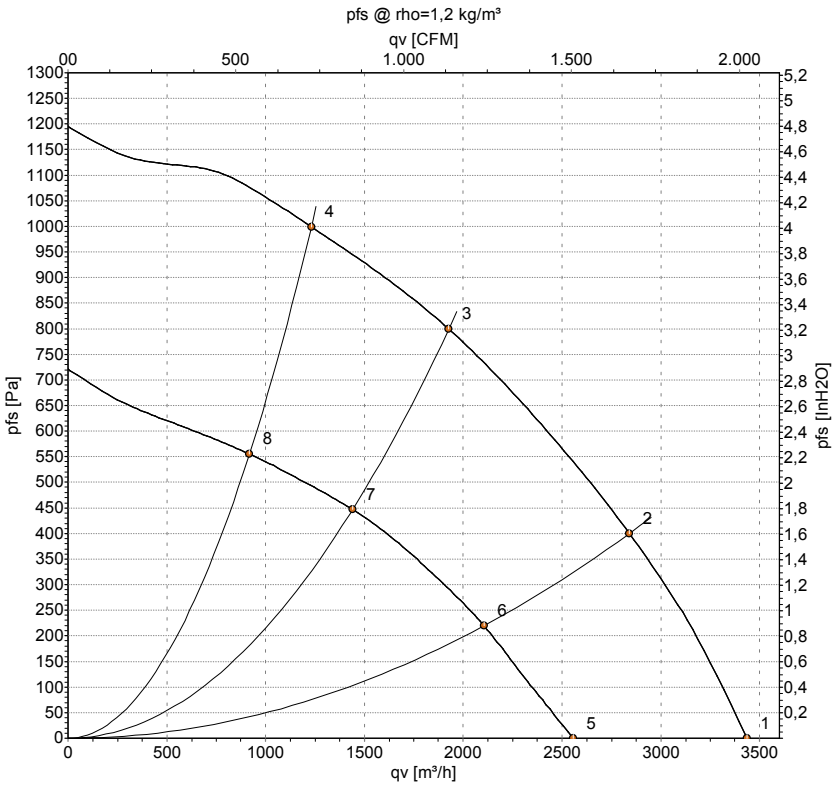
No.	Pin	Signal	Function / assignment
KL5A	4	A4	Hall 1 (orange) open collector, R to UB 4.5-24 V
KL5A	5	A5	Hall 2 (brown) open collector, R to UB 4.5-24 V
KL5A	6	A6	Hall 3 (yellow) open collector, R to UB 4.5-24 V
KL5B	1	A1	+ (red)
KL5B	2	A2	- (blue)
KL5B	3	A3	PTC (black)
KL6	7	A7	W (brown)
KL6	8	A8	V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

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Charts: Air flow



Measurement: LU-156389
Measurement: LU-156431

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	2960	600	5.50	3435	0
2	110	2900	690	6.28	2840	400
3	110	2855	746	6.79	1925	800
4	110	2890	711	6.47	1230	1000
5	77	2200	254	3.31	2560	0
6	77	2155	291	3.78	2105	220
7	77	2130	317	4.12	1440	447
8	77	2150	300	3.90	920	555

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

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