R3G310-AN46-12

EC centrifugal fan

backward-curved, single-intake

for rail applications



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Nominal data

Type	**R3G310-AN46-12**
Motor	**M3G084-FA**

Nominal voltage	VDC	110
Nominal voltage range	VDC	77 .. 138
Method of obtaining data		fa
External electronics		CHG090AA0712
Speed (rpm)	min^{-1}	2960
Power consumption	W	600
Current draw	A	5.5
Min. ambient temperature	°C	-40
Max. ambient temperature	°C	55

ml = Max. load · me = Max. efficiency · fa = Free air · cs = Customer specification · ce = Customer equipment
Subject to change

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Technical description

Weight	4.9 kg
Fan size	310 mm
Rotor surface	Painted black
Impeller material	Sheet aluminum
Number of blades	6
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	IP42
Insulation class	"B"
Max. permitted ambient temp. for motor (transport/storage)	+80 °C
Min. permitted ambient temp. for motor (transport/storage)	-40 °C
Installation position	Shaft horizontal or rotor on top; rotor on bottom on request
Condensation drainage holes	None
Mode	S1
Motor bearing	Ball bearing
Motor protection	PTC thermistor
With cable	Lateral
Protection class	I (with customer connection of protective earth)
Approval	EAC

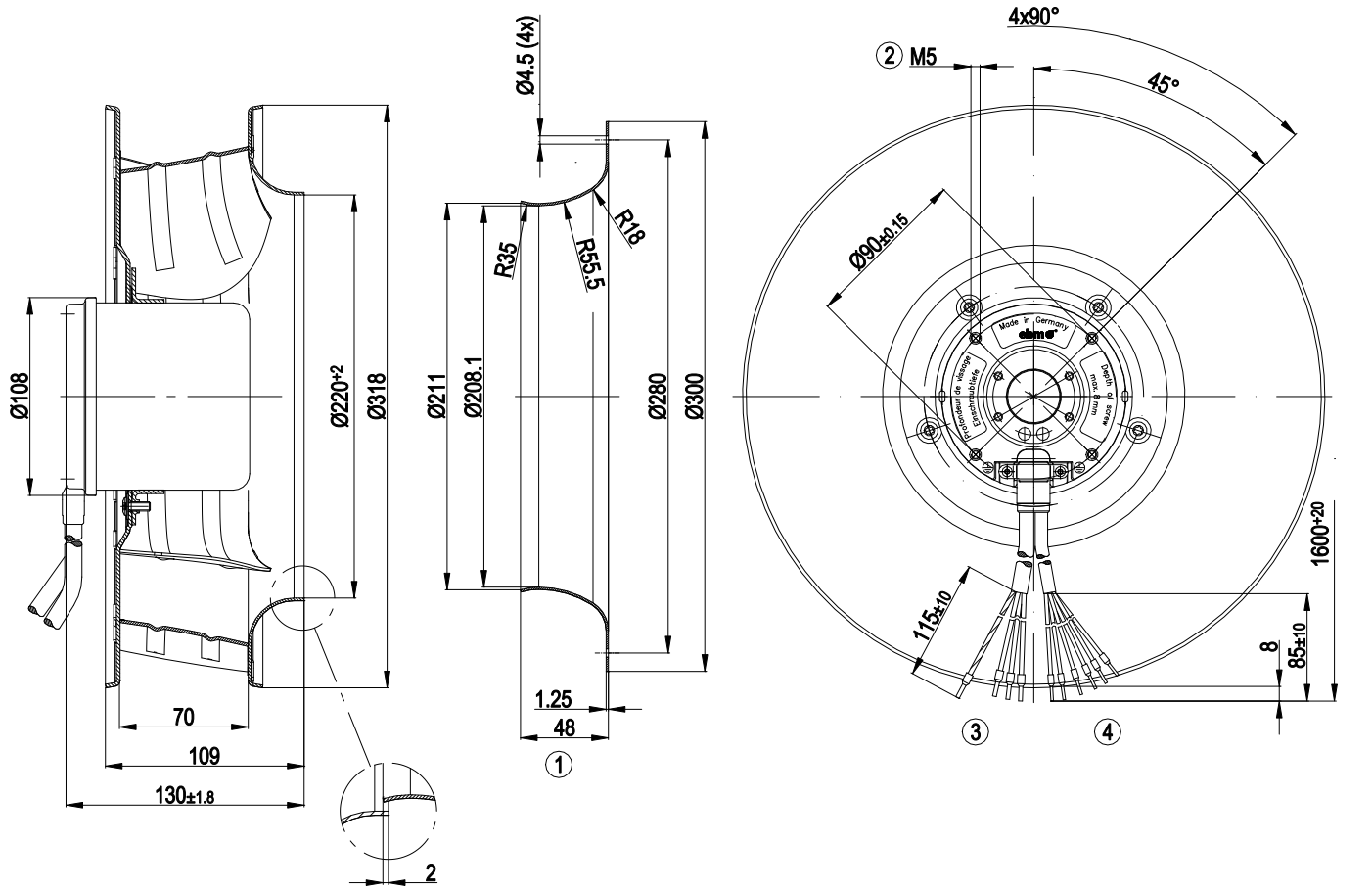
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Product drawing



1	Accessory part: inlet ring 31050-2-4013 not included in scope of delivery
2	Max. clearance for screw 8 mm
3	Cable XLPE/XLPO 4G 1.5 mm², 4x crimped ferrules
4	Cable XLPE/XLPO 6x 0.5 mm², 6x crimped ferrules
5	Accessory part: external electronics CHG090-AA07-12, not included in scope of delivery (not illustrated)

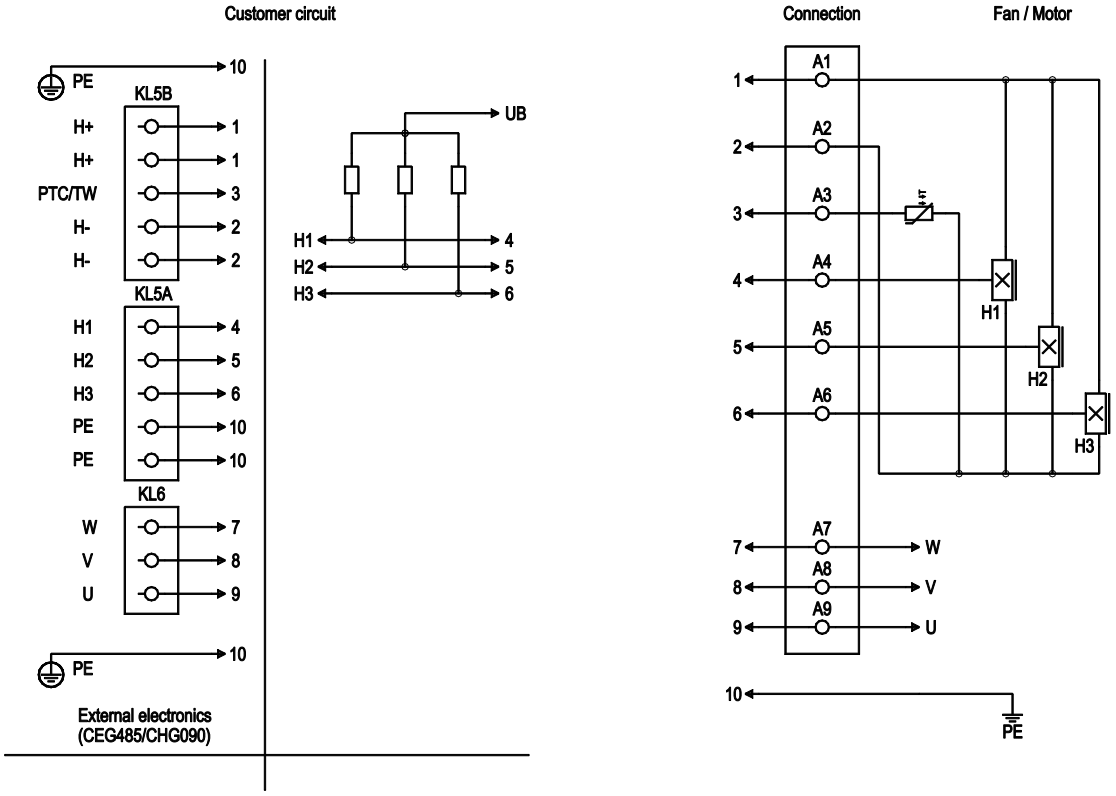
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Connection diagram



No.	Conn.	Designation	Function/assignment
KL5A	4	A4	Hall 1 (orange) collector open, R to UB 4.5-24 V
KL5A	5	A5	Hall 2 (brown) collector open, R to UB 4.5-24 V
KL5A	6	A6	Hall 3 (yellow) collector open, 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

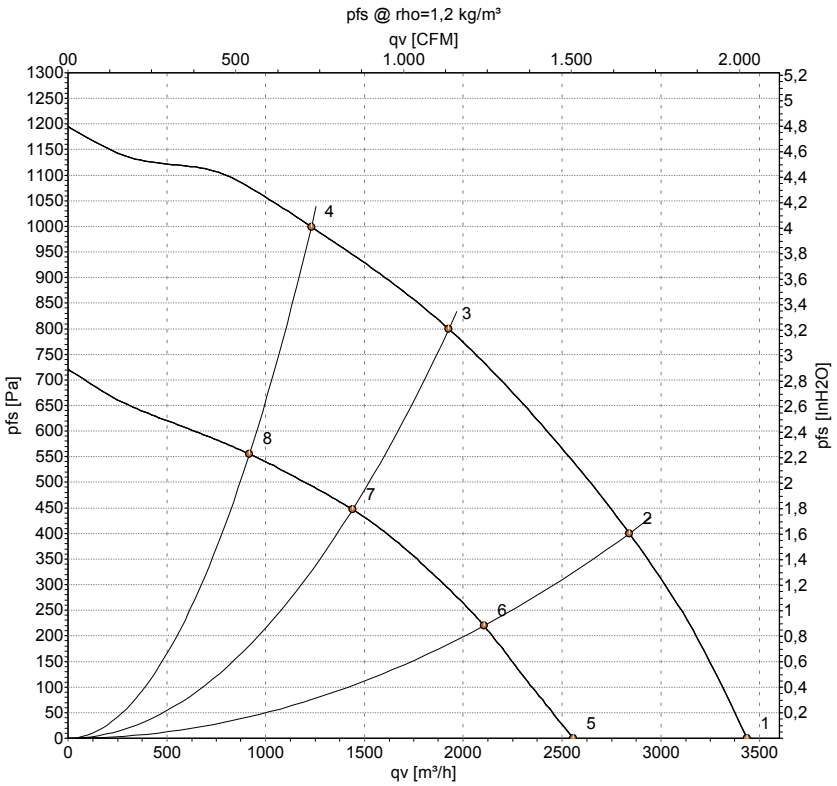
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Curves: Air performance



Measurement: LU-156389-1
Measurement: LU-156431-1

Air performance measured according to ISO 5801 installation category A. For detailed information on the measurement setup, contact ebm-papst. Intake sound level: Sound power level according to ISO 13347 / sound pressure level measured at 1 m distance from fan axis. The values given are valid under the specified measuring conditions and may vary due to conditions of installation. For deviations from the standard configuration, the parameters have to be checked on the installed unit.

Measured values

	U	n	P_{ed}	I	q_V	p_{fs}	q_V	p_{fs}
	V	min^{-1}	W	A	m^3/h	Pa	cfm	inH2O
1	110	2960	600	5.50	3435	0	2025	0.00
2	110	2900	690	6.28	2840	400	1670	1.61
3	110	2855	746	6.79	1925	800	1135	3.21
4	110	2890	711	6.47	1230	1000	725	4.01
5	77	2200	254	3.31	2560	0	1505	0.00
6	77	2155	291	3.78	2105	220	1240	0.88
7	77	2130	317	4.12	1440	447	850	1.79
8	77	2150	300	3.90	920	555	540	2.23

U = Power supply · n = Speed (rpm) · P_{ed} = Power consumption · I = Current draw · q_V = Air flow · p_{fs} = Pressure increase

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