R3G310-AN13-11

EC centrifugal fan

backward-curved, single-intake

for rail applications



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Nominal data

Type	**R3G310-AN13-11**
Motor	**M3G084-FA**

Nominal voltage	VDC	110
Nominal voltage range	VDC	87 .. 143
Method of obtaining data		fa
External electronics		CHG090AA0510
Speed (rpm)	min^{-1}	2500
Power consumption	W	345
Current draw	A	3.2
Min. ambient temperature	°C	-40
Max. ambient temperature	°C	50

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	5 kg
Size	310 mm
Motor size	84
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"
Moisture (F) / Environmental (H) protection class	H1
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	Electronic motor protection
With cable	Lateral
Protection class	I (with customer connection of protective earth)
Conformity with standards	CE
Approval	CCC; EAC

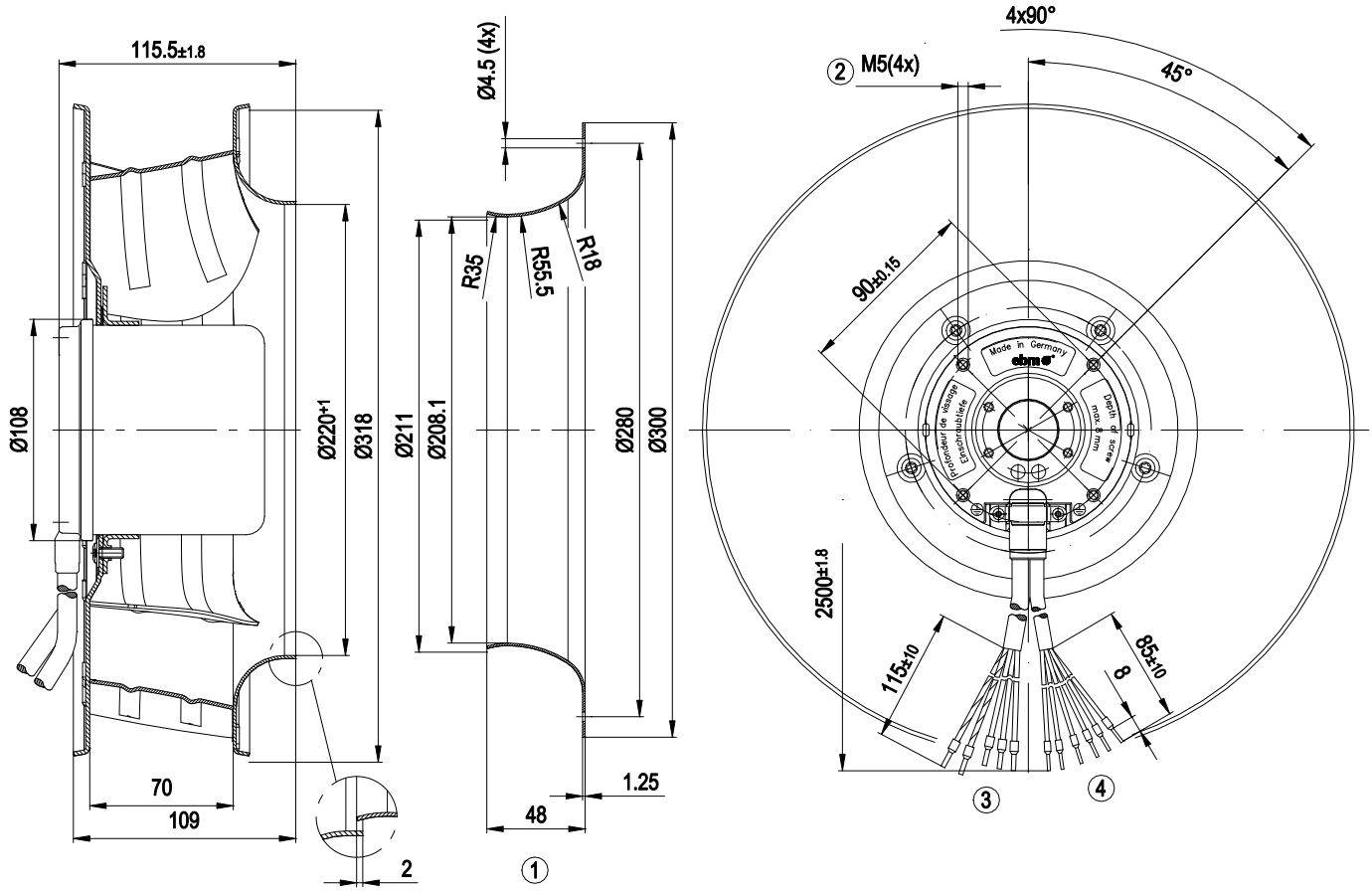
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Product drawing



1	Accessory part: Inlet ring 31050-2-4013 not included in scope of delivery; other inlet rings on request
2	Max. clearance for screw 8 mm
3	Cable silicone 5x 1.0 mm², crimped ferrules
4	Cable silicone, 6x 0.5 mm², crimped ferrules
5	Accessory part: external electronics CHG090-AA05-10 not included in scope of delivery

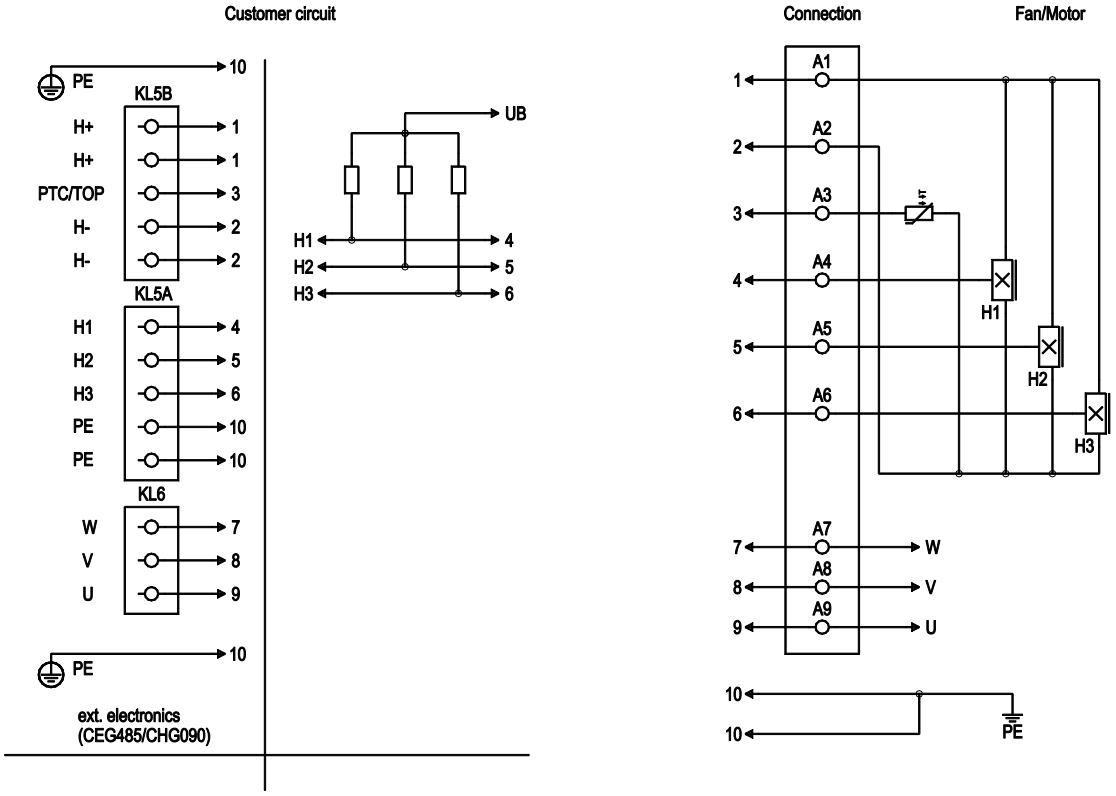
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Connection diagram



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) - 2x

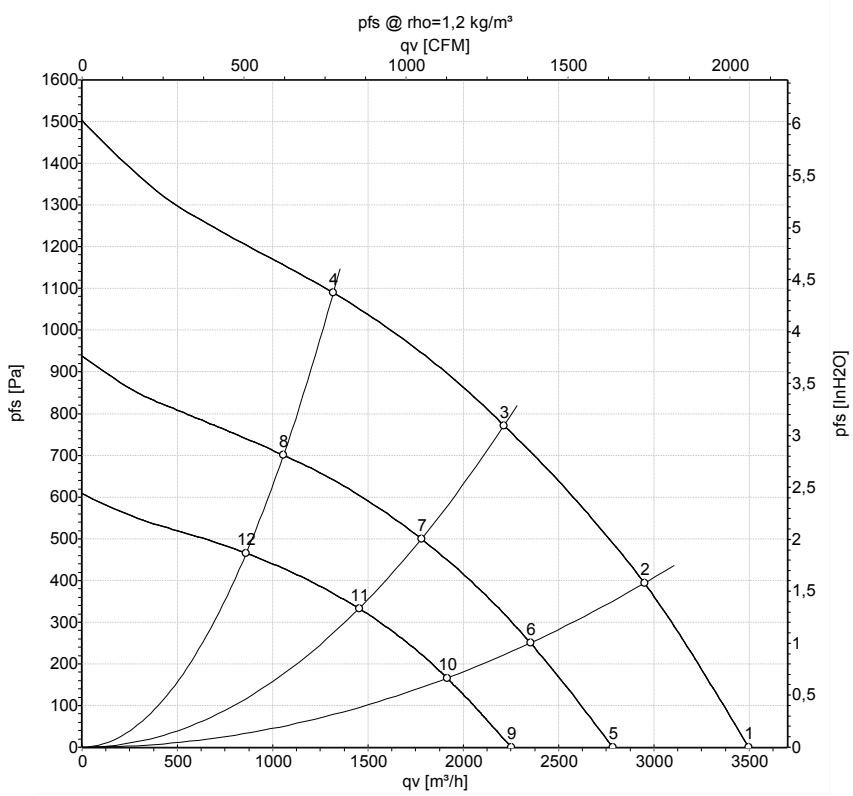
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Curves: Air performance



Measurement: LU-57969-1
Measurement: LU-57966-1
Measurement: LU-57967-1

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	in. wg
1	143	3135	667	4.66	3500	0	2060	0.00
2	143	3045	778	5.45	2950	394	1735	1.58
3	143	2995	846	5.93	2215	772	1305	3.10
4	143	3030	798	5.59	1320	1090	775	4.38
5	110	2500	345	3.20	2785	0	1640	0.00
6	110	2450	402	3.66	2350	250	1385	1.00
7	110	2415	442	4.03	1780	500	1050	2.01
8	110	2435	418	3.81	1055	700	620	2.81
9	87	2030	191	2.20	2250	0	1325	0.00
10	87	1995	224	2.58	1915	166	1125	0.67
11	87	1975	246	2.84	1455	333	855	1.34
12	87	1990	232	2.67	860	465	505	1.87

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

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