K3G310-AJ38-61

EC centrifugal module

backward-curved, single-intake

with support plate

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Nominal data

Type	**K3G310-AJ38-61**
Motor	**M3G084-DF**

Phase		1~
Nominal voltage	VAC	230
Nominal voltage range	VAC	200 .. 277
Frequency	Hz	50/60
Method of obtaining data		ml
Speed (rpm)	min^{-1}	2230
Power consumption	W	380
Current draw	A	1.7
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	40

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

Data according to ErP Directive

		Actual	Req. 2015
01 Overall efficiency η_{es}	%	60.8	46.8
02 Measurement category		A	
03 Efficiency category		Static	
04 Efficiency grade N		76	62
05 Variable speed drive		Yes	

09 Power consumption P_{ed}	kW	0.36
09 Air flow q_v	m^3/h	1770
09 Pressure increase p_{fs}	Pa	400
10 Speed (rpm) n	min^{-1}	2210
11 Specific ratio*		1.00

Data obtained at optimum efficiency level.
The ErP data is determined using a motor-impeller combination in a standardized measurement setup.

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

LU-64612

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Technical description

Weight	8.12 kg
Fan size	310 mm
Rotor surface	Painted black
Electronics housing material	Die-cast aluminum
Impeller material	Sheet aluminum
Support plate material	Sheet aluminum
Spacer material	Aluminum
Inlet nozzle material	Sheet aluminum
Number of blades	6
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	IP20
Insulation class	"B"
Moisture (F) / Environmental (H) protection class	F0
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
Technical features	- Operation and alarm display with LED - Integrated PID controller - Motor current limitation - PFC, active - RS-485 ebmBUS - Soft start - Control interface with SELV potential safely disconnected from the mains - Thermal overload protection for electronics/motor - Line undervoltage / phase failure detection
EMC immunity to interference	According to EN 61000-6-2 (industrial environment)
EMC circuit feedback	According to EN 61000-3-2/3
EMC interference emission	According to EN 61000-6-4 (industrial environment)
Touch current according to IEC 60990 (measuring circuit Fig. 4, TN system)	<= 3.5 mA
Electrical hookup	With plug
Motor protection	Thermal overload protector (TOP) internally connected
Protection class	I (with customer connection of protective earth)
Conformity with standards	EN 61800-5-1; CE
Approval	C22.2 No.77 + CAN/CSA-E60730-1; EAC; UL1004-3 +60730

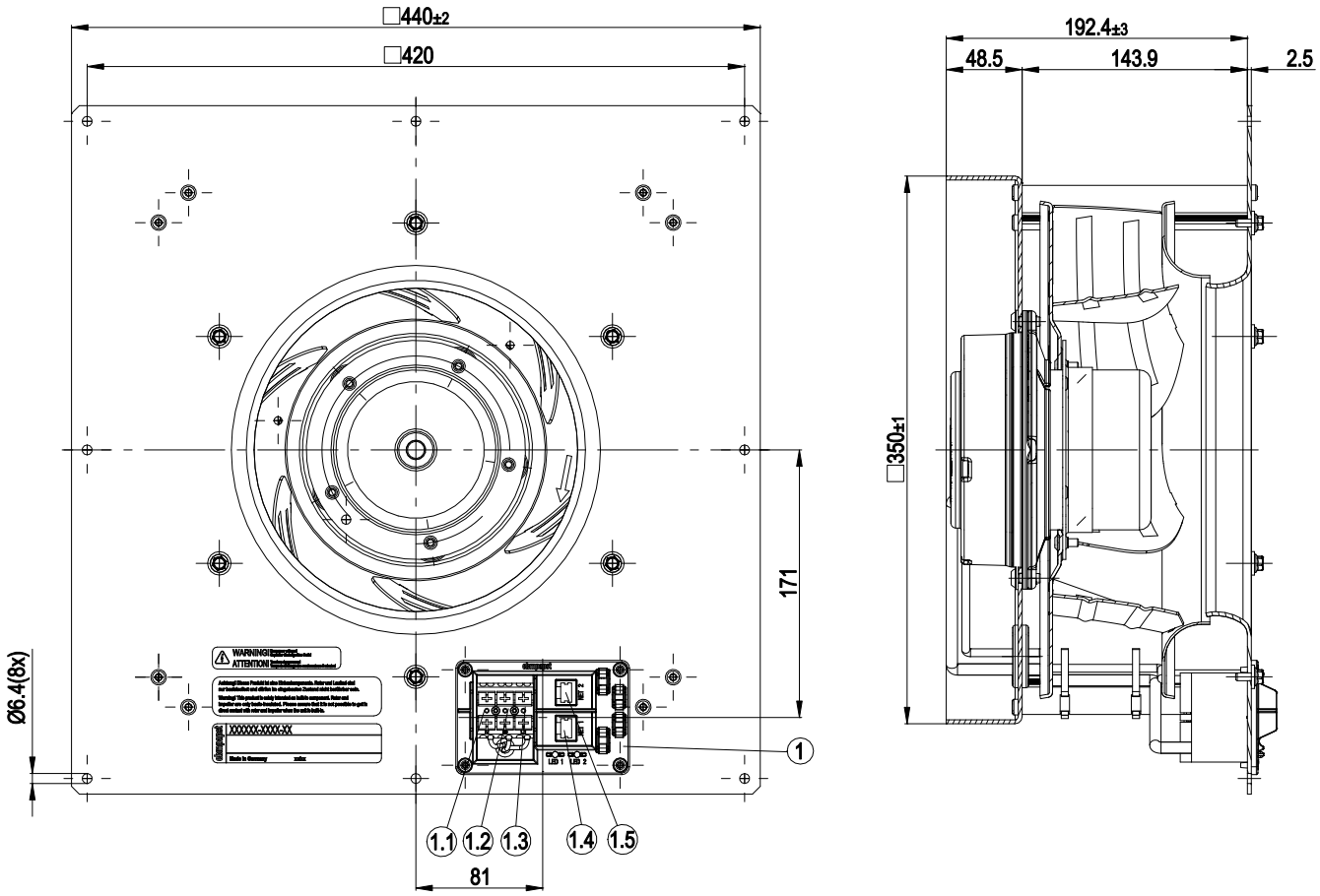
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Product drawing



No.	Conn.	Designation	Function/assignment
1			RS485 terminal box
1	1.1	N	Cable AWG18, 1 x wire (black 2) with wire-end ferrule
1	1.2	PE	Cable AWG18, 1 x wire (green/yellow) with wire-end ferrule
1	1.3	L	Cable AWG18, 1 x wire (black 1) with wire-end ferrule
1	1.4	RJ45 Buchse	RSB PIN 5/RSA PIN 6
1	1.5	RJ45 Buchse	RSB PIN 5/RSA PIN 6

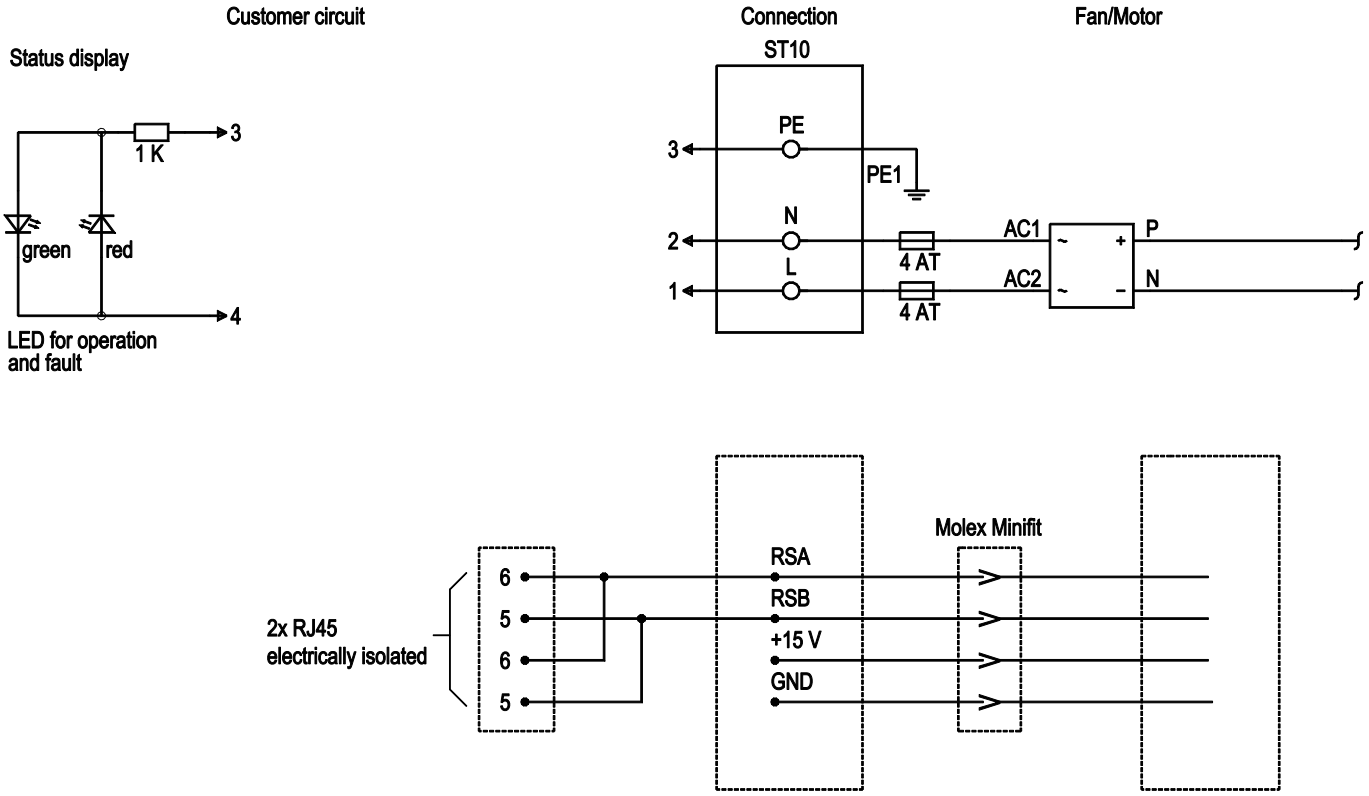
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Connection diagram



No.	Conn.	Designation	Function/assignment
3	PE		Protective earth
2	N		Supply connection, power supply, neutral conductor, voltage range see nameplate, 50/60 Hz
1	L		Supply connection, power supply, phase, voltage range see nameplate, 50/60 Hz
6	RSA		Bus connection RS485, RSA, ebmBUS; SELV
5	RSB		Bus connection RS485, RSB, ebmBUS; SELV

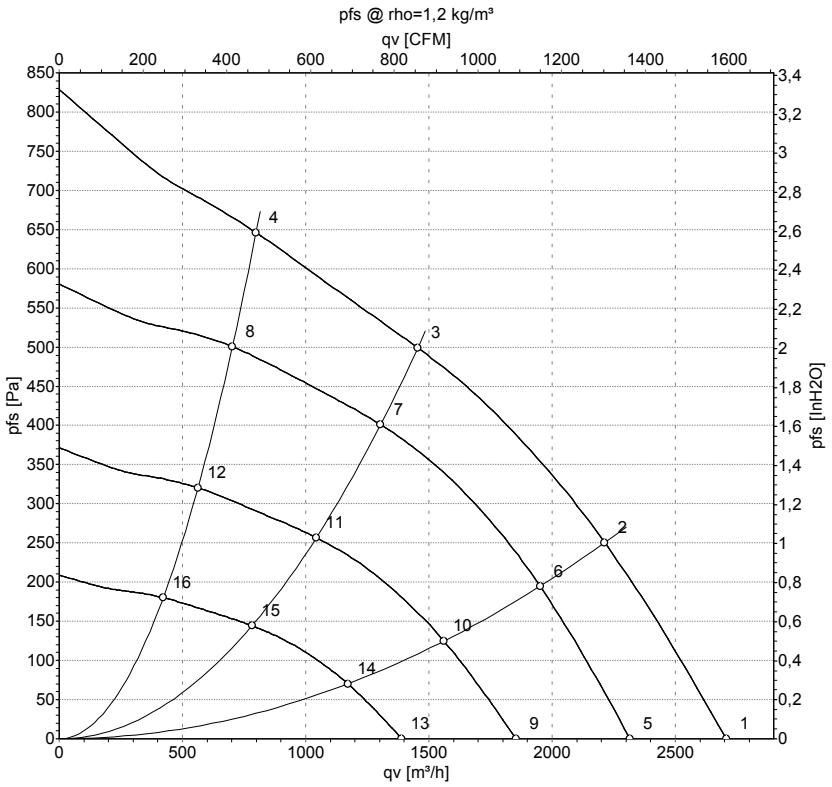
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Curves: Air performance 50 Hz



Measurement: LU-107928-1

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	f	n	P_{ed}	I	q_V	p_{fs}	q_V	p_{fs}
	V	Hz	min^{-1}	W	A	m^3/h	Pa	cfm	inH2O
1	230	50	2335	282	1.24	2710	0	1595	0.00
2	230	50	2270	351	1.54	2215	250	1305	1.00
3	230	50	2230	380	1.70	1455	500	855	2.01
4	230	50	2270	348	1.52	800	650	470	2.61
5	230	50	2000	177	0.77	2315	0	1365	0.00
6	230	50	2000	240	1.05	1950	195	1150	0.78
7	230	50	2000	275	1.20	1305	401	770	1.61
8	230	50	2000	238	1.04	705	502	415	2.02
9	230	50	1600	90	0.40	1855	0	1090	0.00
10	230	50	1600	123	0.54	1560	125	920	0.50
11	230	50	1600	141	0.62	1045	257	615	1.03
12	230	50	1600	122	0.53	565	321	330	1.29
13	230	50	1200	38	0.17	1390	0	820	0.00
14	230	50	1200	52	0.23	1170	70	690	0.28
15	230	50	1200	59	0.26	785	144	460	0.58
16	230	50	1200	51	0.22	420	181	250	0.73

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

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