

EC centrifugal module

backward-curved, single-intake
with support plate

K3G310-AJ38-58 ebmpapst Datasheet
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Nominal data

Type	K3G310-AJ38-58	
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 Commission Regulation (EU) 327/2011 (EN 17166)

		Actual	Req. 2015
01 Overall efficiency η_{es}	%	59.4	47.1
02 Measurement category		A	
03 Efficiency category		Static	
04 Efficiency grade N		74.3	62
05 Variable speed drive		Yes	

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

09 Power consumption P_{ed}	kW	0.38
09 Air flow q_v	m³/h	1600
09 Pressure increase p_{fs}	Pa	459
10 Speed (rpm) n	min ⁻¹	2230
11 Specific ratio*		1.00

* Specific ratio = $1 + p_{fs} / 100\,000\text{ Pa}$

LU-107928



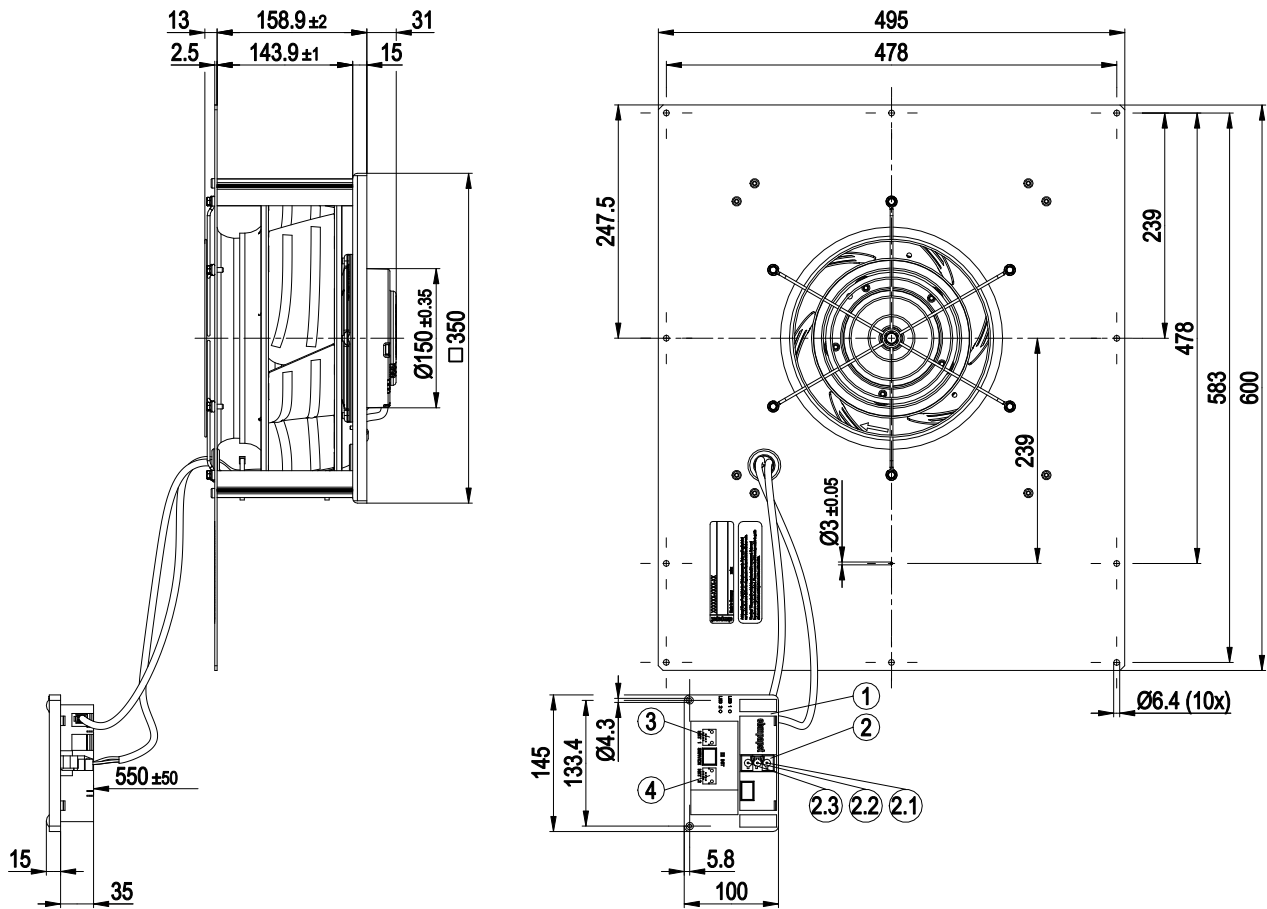
Technical description

Weight	7.4 kg
Size	310 mm
Motor size	84
Rotor surface	Painted black
Electronics housing material	Die-cast aluminum
Blade 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	H0 - dry environment
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
Touch current according to IEC 60990 (measuring circuit Fig. 4, TN system)	<= 3.5 mA
Electrical hookup	Connector with cable
Motor protection	Thermal overload protector (TOP) internally connected
With cable	Variable
Protection class	I (with customer connection of protective earth)
Conformity with standards	EN 61800-5-1; CE
Approval	CSA C22.2 No. 77; UL 1004-3

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Product drawing

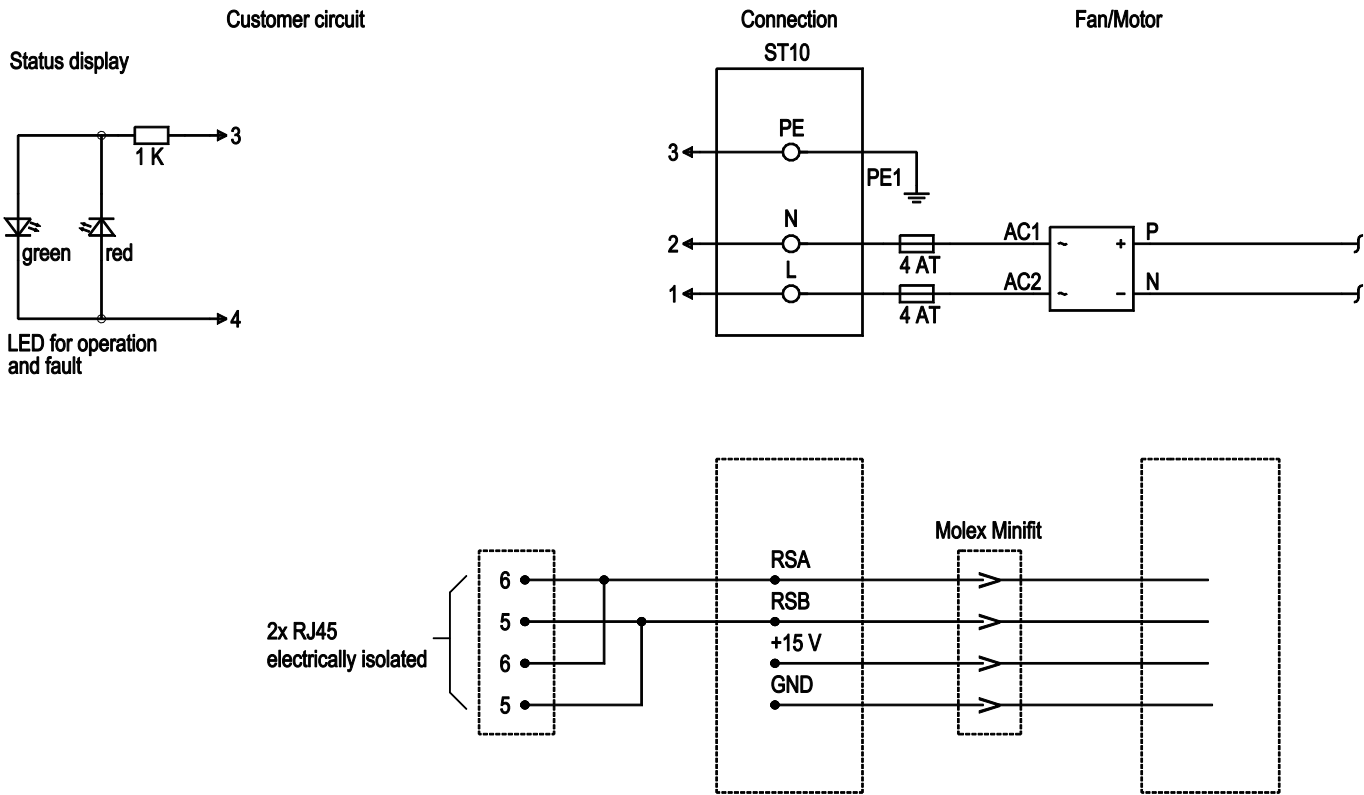


1	Terminal box
2	Connector housing 3-pole GST18/3 Wieland 92.032.9058.1
2.1	N
2.2	PE
2.3	L
3	8-pole connector housing TE 100616-2
4	8-pole connector housing TE 100616-2

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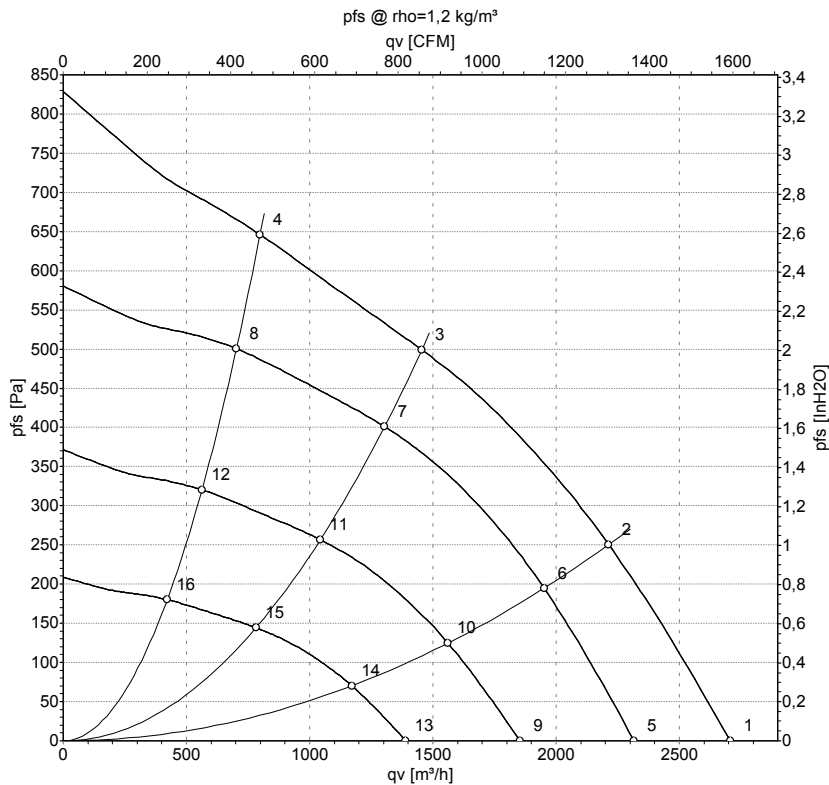
Connection diagram



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



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	m³/h	Pa	cfm	in. wg
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 = Voltage · f = Frequency · n = Speed (rpm) · P_{ed} = Power consumption · I = Current draw · q_v = Air flow · p_{fs} = Pressure increase

