EC centrifugal module

backward-curved, single-intake

with support plate

K3G400-AC32-71 ebmpapst Datasheet
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Nominal data

Type	**K3G400-AC32-71**
Motor	**M3G084-FA**

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}	1370
Power consumption	W	410
Current draw	A	2.5
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	30

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}	%	56.8	47.2
02 Measurement category		A	
03 Efficiency category		Static	
04 Efficiency grade N		71.6	62
05 Variable speed drive		Yes	

09 Power consumption P_{ed}	kW	0.39
09 Air flow q_v	m^3/h	2105
09 Pressure increase p_{fs}	Pa	345
10 Speed (rpm) n	min^{-1}	1375
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-65706

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Technical description

Weight	10.22 kg
Fan size	400 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	IP54
Insulation class	"B"
Moisture (F) / Environmental (H) protection class	F3-1
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 bottom; rotor on top on request
Condensation drainage holes	None
Mode	S1
Motor bearing	Ball bearing
Technical features	- Output 10 VDC, max. 1.1 mA - Alarm relay - Motor current limitation - Soft start - Control input 0-10 VDC / PWM - Control interface with SELV potential safely disconnected from the mains - Thermal overload protection for electronics/motor - Line undervoltage 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 61000-6-3 (household environment)
Touch current according to IEC 60990 (measuring circuit Fig. 4, TN system)	<= 3.5 mA
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	EAC; UL 2111; CSA C22.2 No. 77

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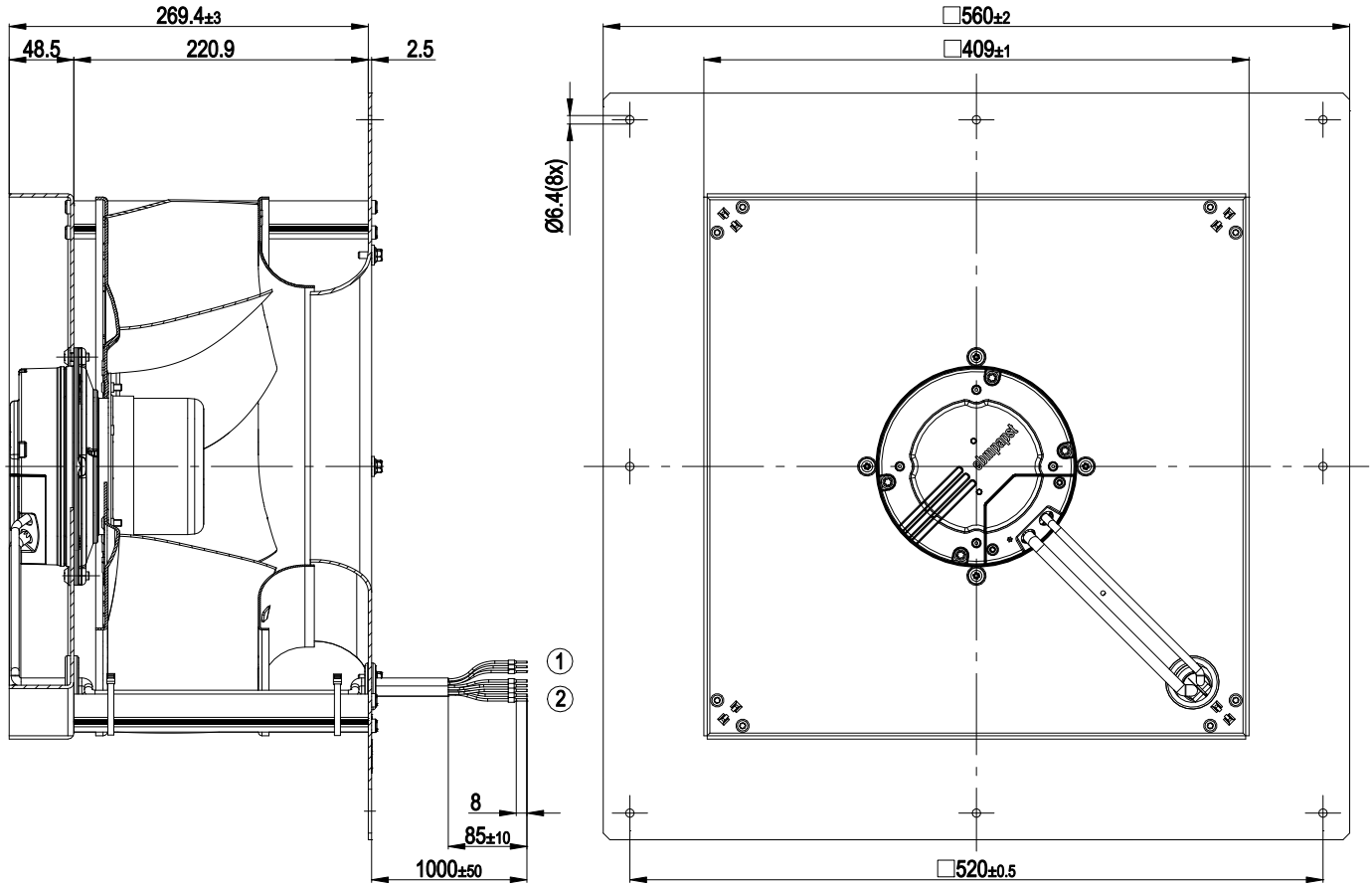
Product drawing



1	Cable AWG22, 3 x crimped ferrules
2	Cable AWG18, 5 x crimped ferrules

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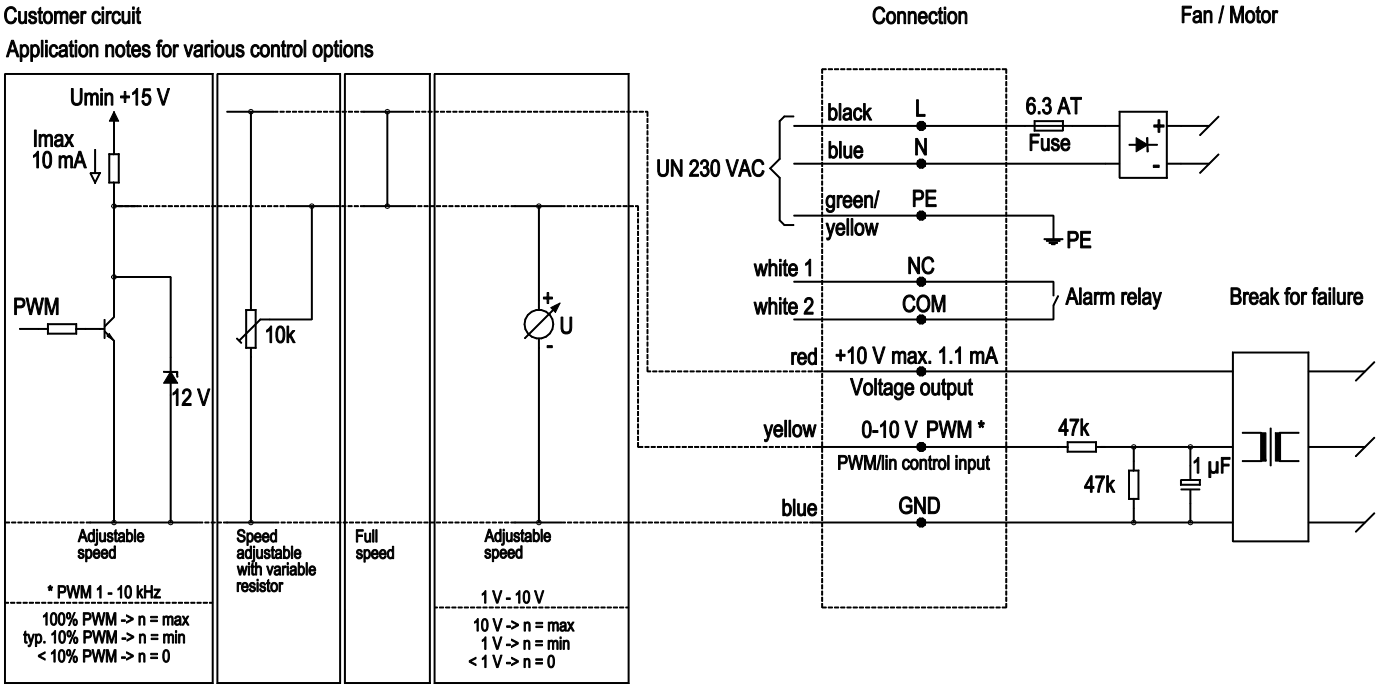
Connection diagram



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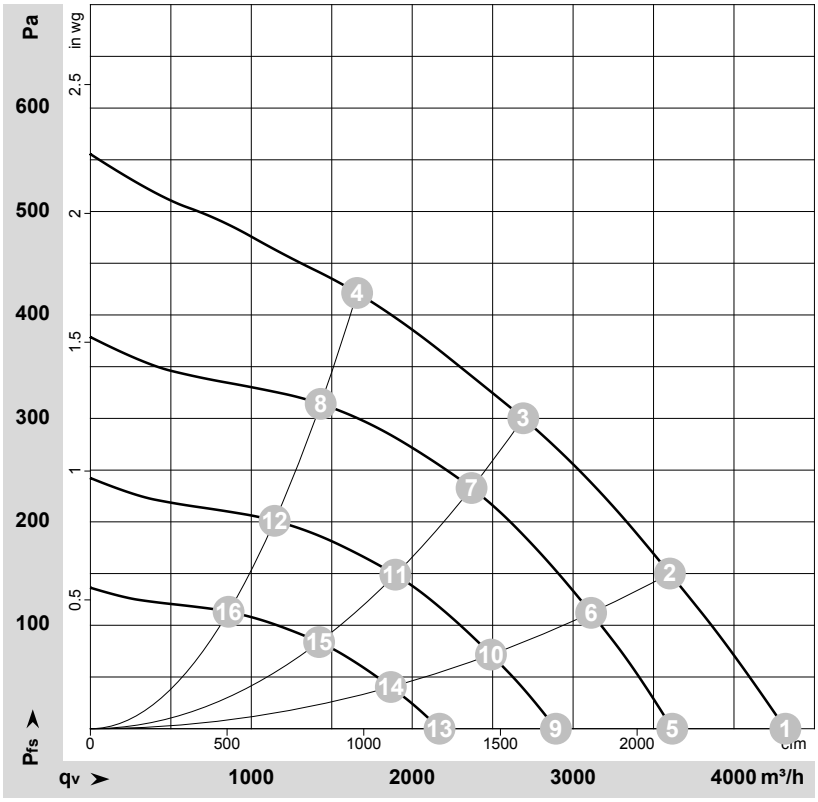
Curves: Air performance 50 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-178311-1

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	qv	p_{fs}	qv	p_{fs}
	V	Hz	min^{-1}	W	A	m^3/h	Pa	CFM	inH2O
1	230	50	1495	337	2.20	4320	0	2545	0.00
2	230	50	1445	387	2.50	3600	150	2120	0.60
3	230	50	1370	410	2.50	2690	300	1585	1.20
4	230	50	1445	388	2.50	1660	420	975	1.69
5	230	50	1250	198	1.29	3615	0	2130	0.00
6	230	50	1250	250	1.63	3110	113	1830	0.45
7	230	50	1250	283	1.85	2370	233	1395	0.94
8	230	50	1250	250	1.63	1430	315	840	1.26
9	230	50	1000	101	0.66	2895	0	1705	0.00
10	230	50	1000	128	0.84	2490	72	1465	0.29
11	230	50	1000	145	0.94	1895	149	1115	0.60
12	230	50	1000	128	0.83	1145	201	675	0.81
13	230	50	750	43	0.28	2170	0	1275	0.00
14	230	50	750	54	0.35	1865	41	1100	0.16
15	230	50	750	61	0.40	1420	84	835	0.34
16	230	50	750	54	0.35	860	113	505	0.45

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

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