EC centrifugal module

backward curved, single inlet

with support plate

K3G400-AD32-71 ebmpapst Datasheet
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ErP2015 EXCEEDS THE NORM

Nominal data

Type	**K3G400-AD32-71**	
Motor	**M3G084-FA**	
Phase		1~
Nominal voltage	VAC	230
Nominal voltage range	VAC	200 .. 277
Frequency	Hz	50/60
Type of data definition		ml
Speed	min^{-1}	1400
Power input	W	360
Current draw	A	2.2
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	40

ml = max. load · me = max. efficiency · fa = running at free air · cs = customer specs · cu = customer unit
Subject to alterations

Data according to ErP directive

Installation category	A
Efficiency category	Static
Variable speed drive	Yes
Specific ratio*	1.00

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

		Actual	Request 2013	Request 2015
Overall efficiency η_{es}		60	42.8	46.8
Efficiency grade N		75.2	58	62
Power input P_{ed}	kW	0.36		
Air flow q_v	m^3/h	2505		
Pressure increase p_{fs}	Pa	283		
Speed n	min^{-1}	1455		

Data established at point of optimum efficiency

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Technical features

Mass	9.8 kg
Size	400 mm
Surface of rotor	Coated in black
Material of electronics housing	Die-cast aluminium
Material of impeller	Aluminium sheet
Material of mounting plate	Aluminium sheet
Material of distancing profiles	Aluminium
Material of inlet nozzle	Aluminium sheet
Number of blades	6
Direction of rotation	Clockwise, seen on rotor
Type of protection	IP 54
Insulation class	"B"
Humidity class	F3-1
Max. permissible ambient motor temp. (transp./ storage)	+80 °C
Min. permissible ambient motor temp. (transp./storage)	-40 °C
Mounting position	Shaft horizontal or rotor on bottom; rotor on top on request
Condensate discharge holes	None
Operation mode	S1
Motor bearing	Ball bearing
Technical features	- Output 10 VDC, max. 1.1 mA - Alarm relay - Motor current limit - Soft start - Control input 0-10 VDC / PWM - Over-temperature protected electronics / motor - Line undervoltage detection
EMC interference immunity	Acc. to EN 61000-6-2 (industrial environment)
EMC harmonics	Acc. to EN 61000-3-2/3
EMC interference emission	Acc. to EN 61000-6-3 (household environment)
Touch current acc. IEC 60990 (measuring network Fig. 4, TN system)	<= 3.5 mA
Motor protection	Thermal overload protector (TOP) wired internally
Cable exit	Variable
Protection class	I (if protective earth is connected by customer)
Product conforming to standard	EN 61800-5-1; CE
Approval	UL 2111; CSA C22.2 Nr.77

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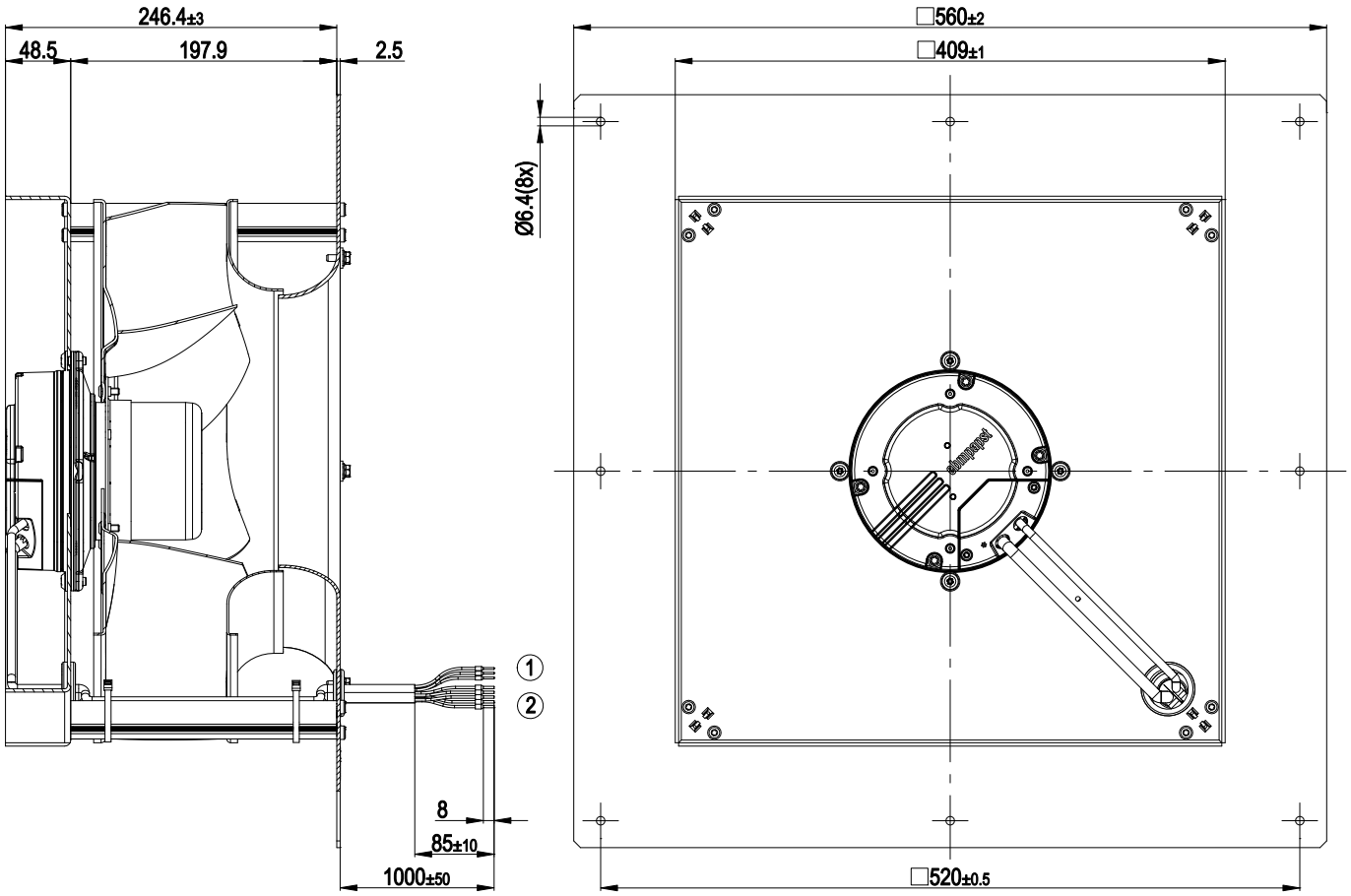
Product drawing



1	Connection line AWG22, 3 x crimped core-end sleeves
2	Connection line AWG18, 5 x crimped core-end sleeves

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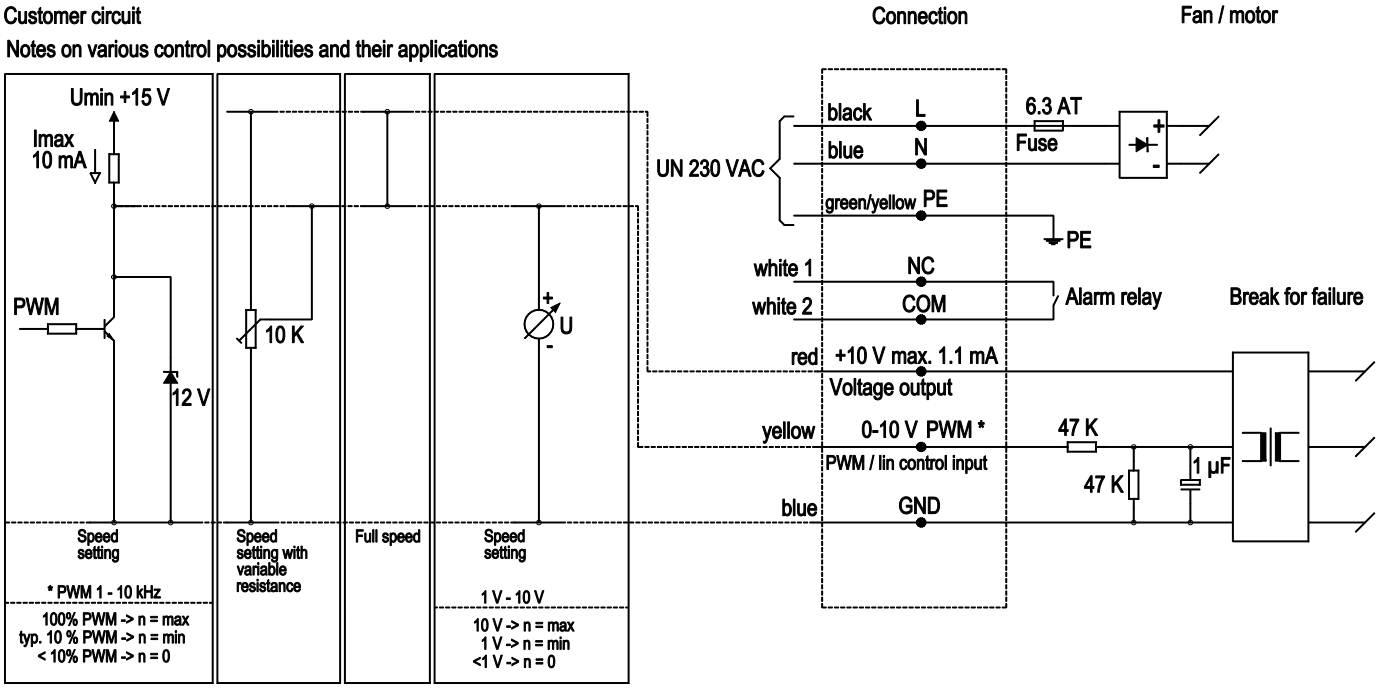
Connection screen



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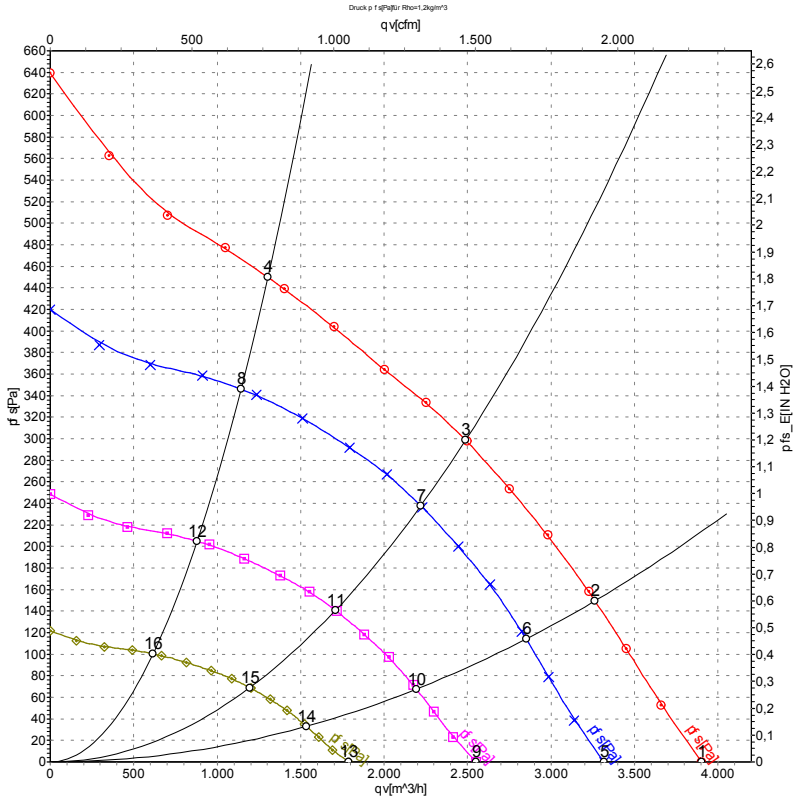
Charts: Air flow 50 Hz



Measurement: LU-114983

Air performance measured as per ISO 5801 Installation category A. For detailed information on the measuring set-up, please contact ebm-papst. Suction-side noise levels: LwA measured as per ISO 13347 / LpA measured with 1m distance to fan axis. The values given are valid under the measuring conditions mentioned above and may vary according to the actual installation situation. With any deviation from the standard set-up, the specific values have to be checked and reviewed with the unit installed.

Measured values

	U	f	n	P_{ed}	I	LpA_{in}	LwA_{in}	LwA_{out}	qv	p_{fs}
	V	Hz	min^{-1}	W	A	dB(A)	dB(A)	dB(A)	m^3/h	Pa
1	230	50	1530	290	1.79	73	79	83	3900	0
2	230	50	1490	332	2.02	68	74	78	3260	150
3	230	50	1450	360	2.20	60	67	72	2490	300
4	230	50	1480	343	2.08	64	71	76	1305	450
5	230	50	1300	178	1.10	69	76	80	3315	0
6	230	50	1300	221	1.35	65	71	75	2850	114
7	230	50	1300	260	1.57	57	64	69	2220	238
8	230	50	1300	232	1.41	61	69	73	1145	346
9	230	50	1000	81	0.50	64	70	74	2550	0
10	230	50	1000	101	0.61	59	66	70	2195	68
11	230	50	1000	118	0.71	52	59	64	1710	141
12	230	50	1000	105	0.64	56	63	67	880	205
13	230	50	700	28	0.17	56	62	66	1785	0
14	230	50	700	35	0.21	51	58	62	1535	33
15	230	50	700	41	0.25	44	51	56	1195	69
16	230	50	700	36	0.22	48	55	60	615	100

U = Supply voltage · f = Frequency · n = Speed · P_{ed} = Power input · I = Current draw · LpA_{in} = Sound pressure level inlet side · LwA_{in} = Sound power level inlet side · LwA_{out} = Sound power level outlet side
qv = Air flow · p_{fs} = Pressure increase