K3G310-AI39-71

EC centrifugal module

backward curved, single inlet

with support plate

K3G310-AI39-71 ebmpapst Datasheet
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ErP2015 EXCEEDS THE NORM

Nominal data

Type	**K3G310-AI39-71**
Motor	**M3G084-DF**

Phase		1~
Nominal voltage	VAC	230
Nominal voltage range	VAC	200 .. 277
Frequency	Hz	50/60
Type of data definition		ml
Speed	min^{-1}	2250
Power input	W	500
Current draw	A	3.15
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	30

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}		57.2	44.2	48.2
Efficiency grade N		71	58	62
Power input P_{ed}	kW	0.48		
Air flow q_v	m^3/h	2005		
Pressure increase p_{fs}	Pa	450		
Speed n	min^{-1}	2175		

Data established at point of optimum efficiency

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Technical features

Mass	7.53 kg
Size	310 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
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 top; rotor on bottom 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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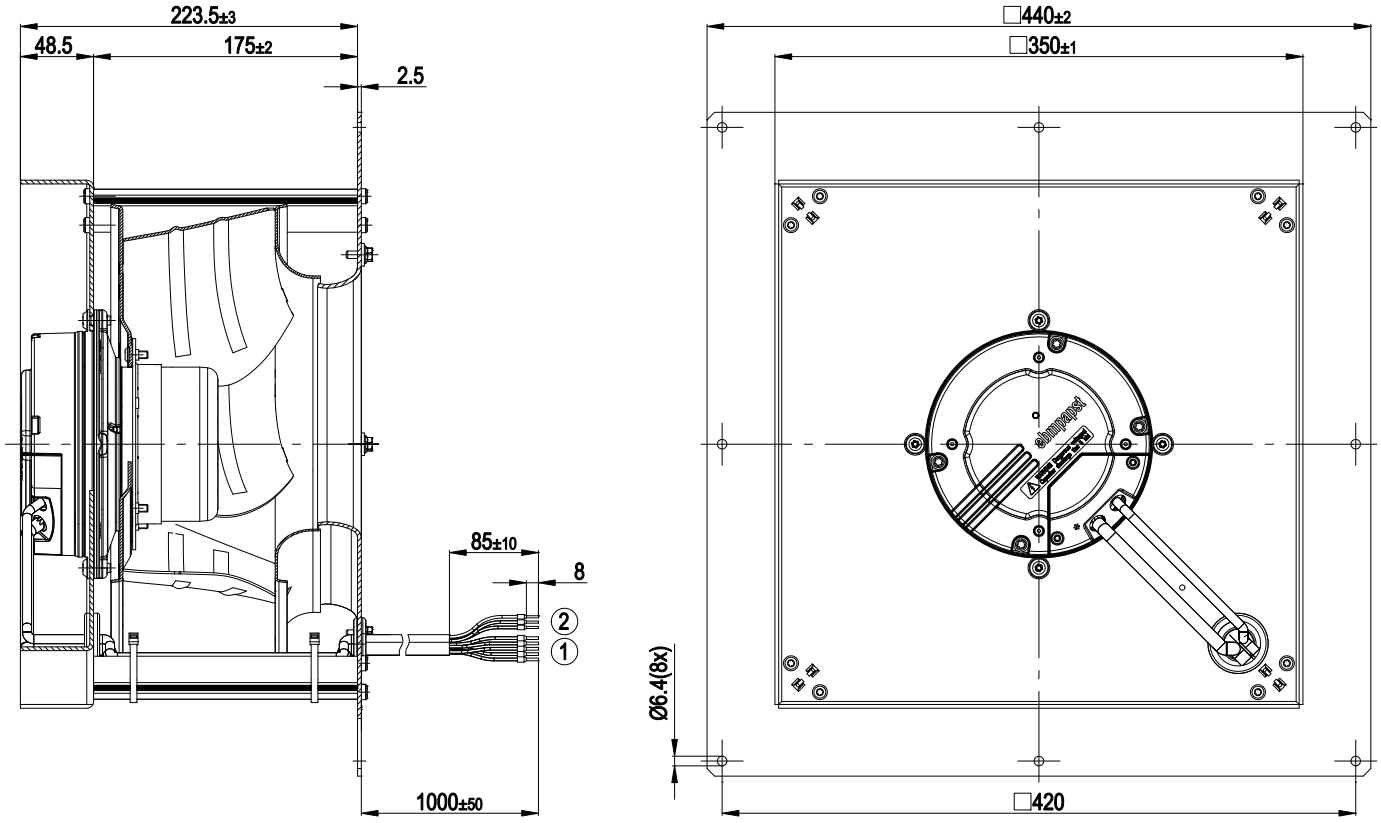
Product drawing



1	Connection line PVC AWG 18, 5x crimped core-end sleeves
2	Connection line PVC AWG 22, 3x crimped core-end sleeves

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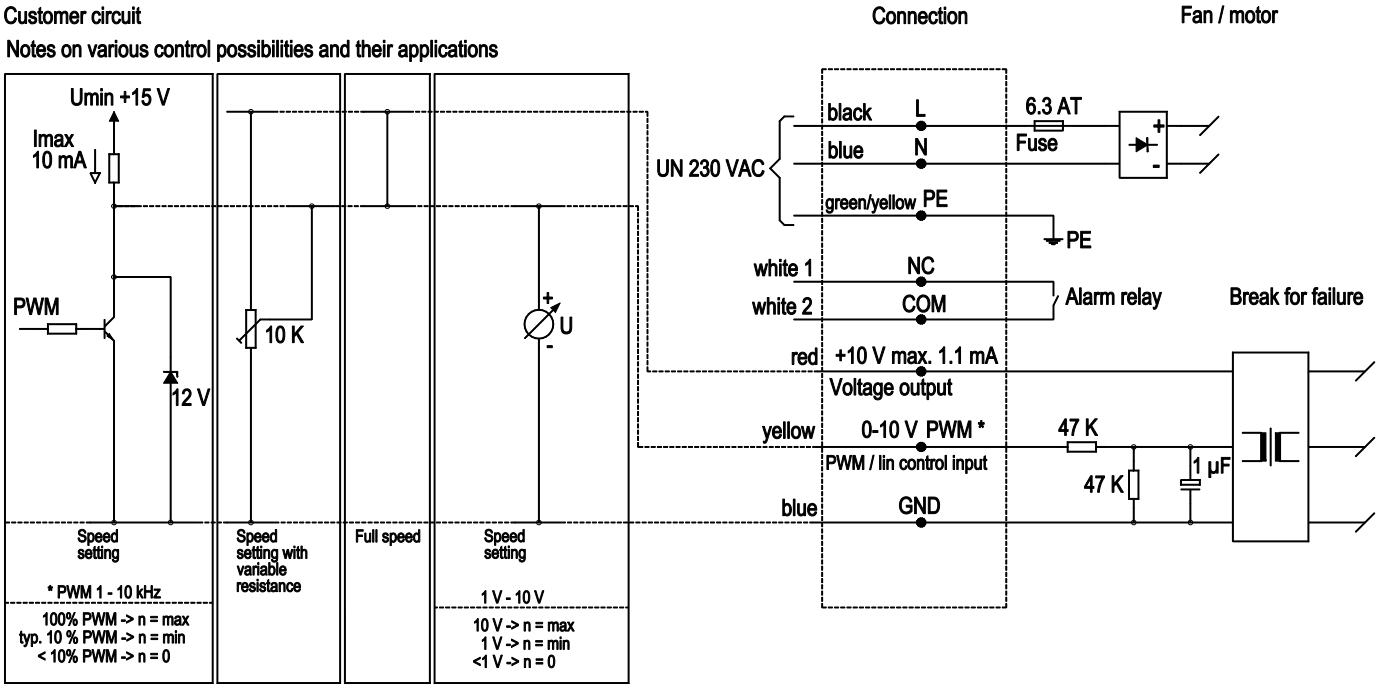
Connection screen



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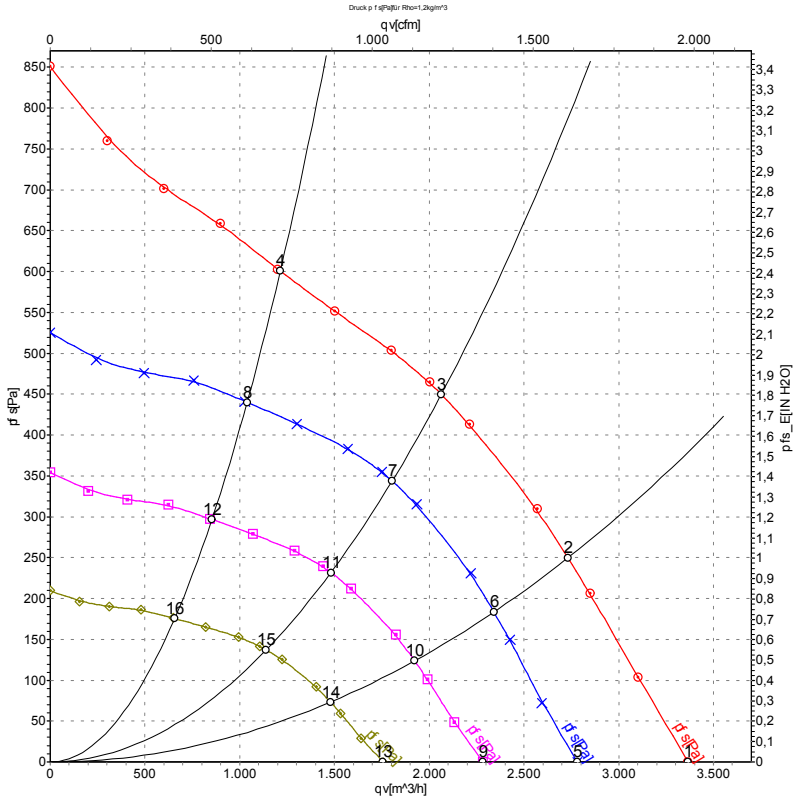
Charts: Air flow 50 Hz



Measurement: LU-66884

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	qv	p_{fs}
	V	Hz	min^{-1}	W	A	m^3/h	Pa
1	230	50	2300	370	2.37	3365	0
2	230	50	2215	443	2.82	2730	250
3	230	50	2170	480	3.10	2065	450
4	230	50	2220	448	2.87	1215	600
5	230	50	1900	209	1.33	2780	0
6	230	50	1900	279	1.78	2340	184
7	230	50	1900	321	2.06	1805	344
8	230	50	1900	282	1.80	1040	440
9	230	50	1560	116	0.74	2285	0
10	230	50	1560	154	0.98	1920	124
11	230	50	1560	178	1.14	1480	232
12	230	50	1560	156	1.00	855	297
13	230	50	1200	53	0.34	1755	0
14	230	50	1200	70	0.45	1480	73
15	230	50	1200	81	0.52	1140	137
16	230	50	1200	71	0.45	655	176

U = Supply voltage · f = Frequency · n = Speed · P_{ed} = Power input · I = Current draw · qv = Air flow · p_{fs} = Pressure increase