K3G280-RO40-72

EC centrifugal module - RadiCal®

backward curved, single inlet

with support bracket

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ErP2015 EXCEEDS THE NORM

Nominal data

Type	**K3G280-RO40-72**
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}	2530
Power input	W	470
Current draw	A	3.1
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*	1.01

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

		Actual	Request 2013	Request 2015
Overall efficiency η_{es}	%	65.3	43.9	47.9
Efficiency grade N		79.4	58	62
Power input P_{ed}	kW	0.45		
Air flow q_v	m^3/h	1805		
Pressure increase p_{fs}	Pa	533		
Speed n	min^{-1}	2540		

Data definition with optimum efficiency. LU-137431
The ErP data is determined using a motor-impeller combination in a standardised measurement configuration.

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Technical features

Mass	8.3 kg
Size	280 mm
Surface of rotor	Coated in black
Material of electronics housing	Die-cast aluminium
Material of impeller	PP plastic
Material of mounting plate	Sheet steel, galvanised
Material of support bracket	Steel, coated in black
Material of inlet nozzle	Sheet steel, galvanised
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 - Control interface with SELV potential safely disconnected from the mains - Over-temperature protected electronics / motor - Line undervoltage detection
EMC interference immunity	Acc. to EN 61000-6-2 (industrial environment)
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	CCC; CSA C22.2 Nr.77; EAC; UL 2111

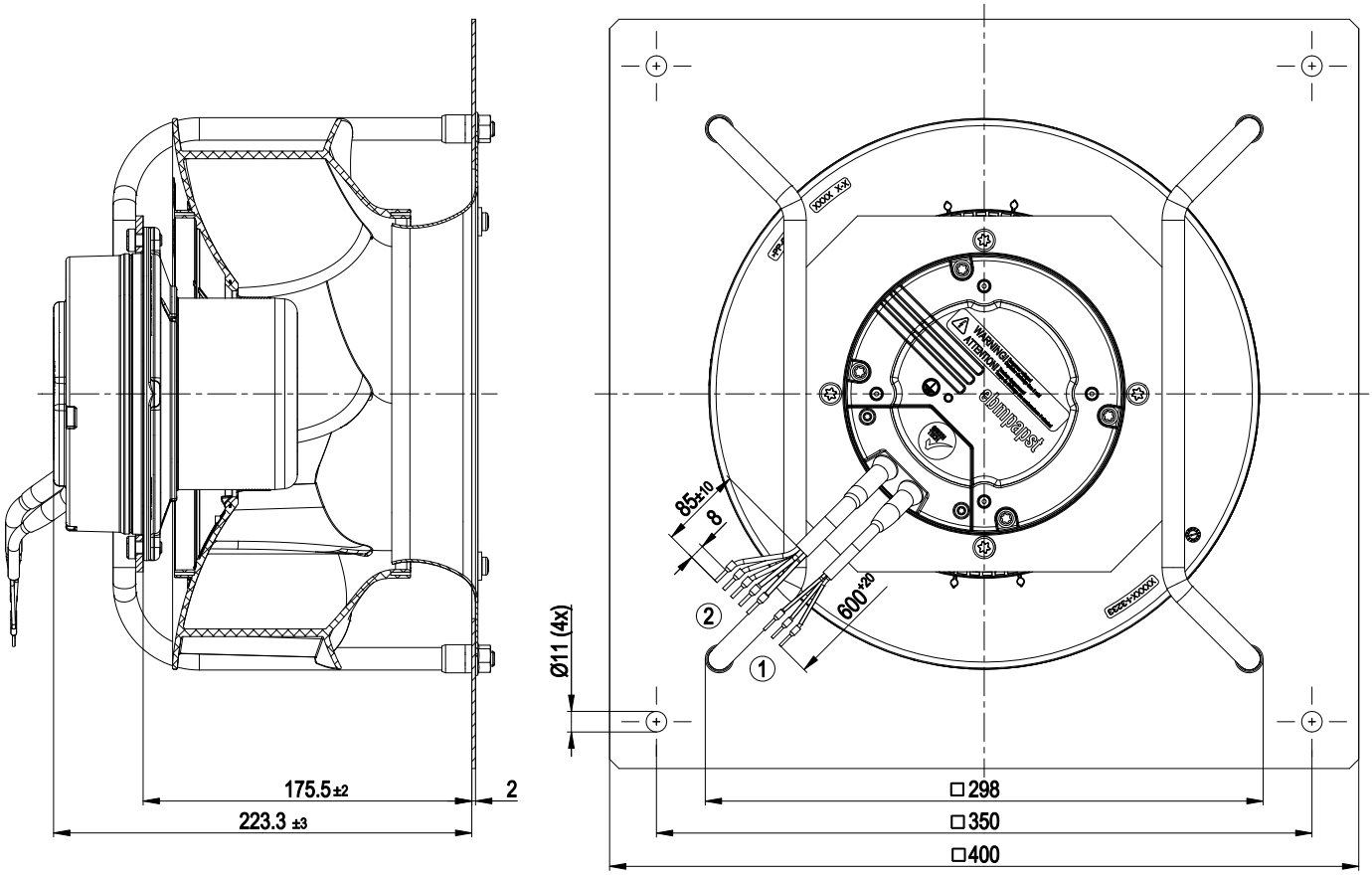
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Product drawing



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

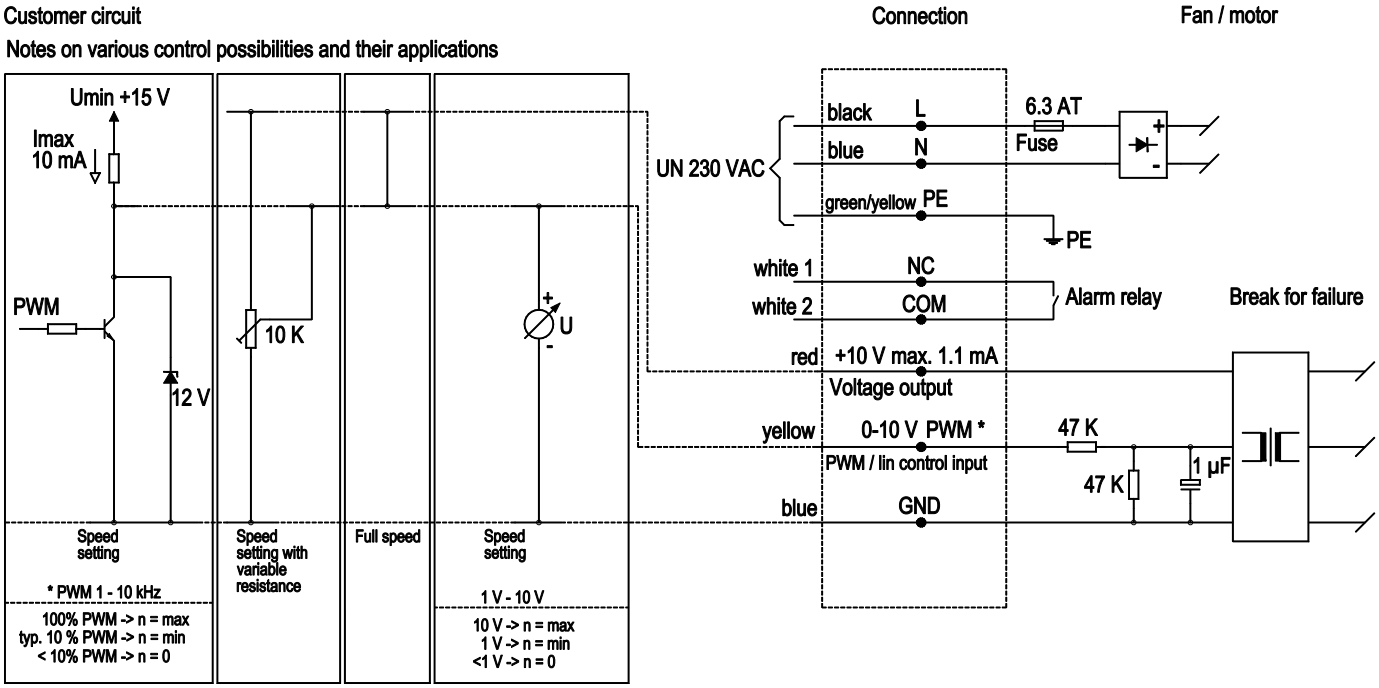
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Connection screen



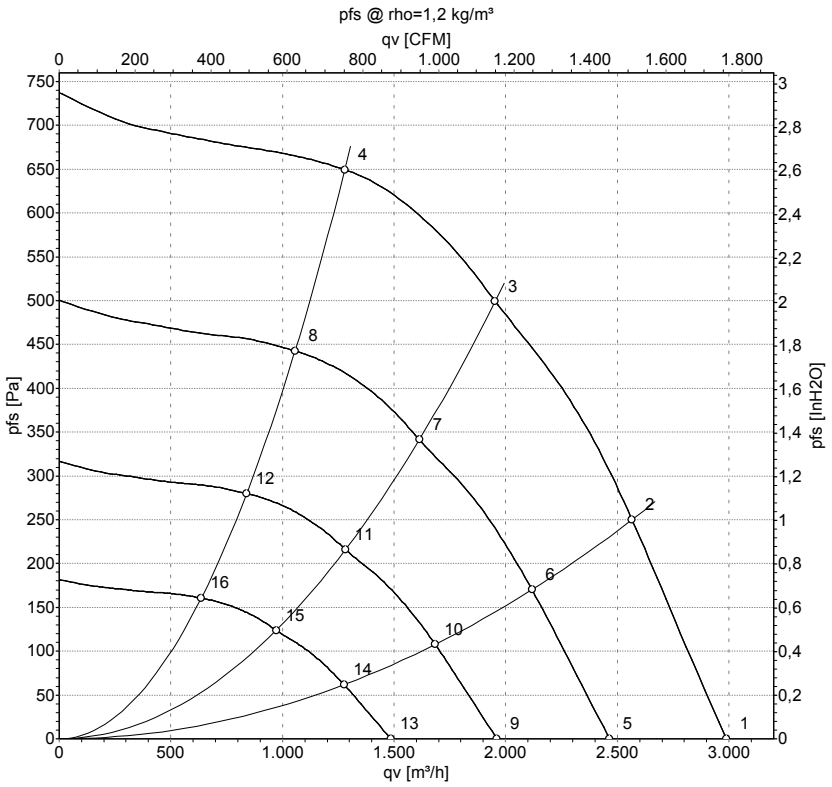
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Charts: Air flow 50 Hz



Measurement: LU-137431

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}	qv	p_{fs}
	V	Hz	min^{-1}	W	A	dB(A)	dB(A)	m^3/h	Pa
1	230	50	2530	335	2.20	73	80	2985	0
2	230	50	2530	419	2.76	69	77	2565	250
3	230	50	2530	470	3.10	65	73	1950	500
4	230	50	2530	415	2.76	66	76	1280	650
5	230	50	2100	188	1.23			2465	0
6	230	50	2100	236	1.55			2120	171
7	230	50	2100	255	1.68			1615	341
8	230	50	2100	234	1.55			1055	443
9	230	50	1670	95	0.62			1960	0
10	230	50	1670	119	0.78			1685	108
11	230	50	1670	128	0.84			1285	216
12	230	50	1670	117	0.78			840	280
13	230	50	1265	41	0.27			1485	0
14	230	50	1265	52	0.34			1275	62
15	230	50	1265	56	0.37			970	124
16	230	50	1265	51	0.34			635	161

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 · qv = Air flow
p_{fs} = Pressure increase

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