K3G220-RD21-01

EC centrifugal module - RadiCal

backward curved, single inlet

with housing

K3G220-RD21-01 ebmpapst Datasheet
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Nominal data

Type	**K3G220-RD21-01**
Motor	**M3G055-CF**

Phase		1~
Nominal voltage	VAC	230
Nominal voltage range	VAC	200 .. 240
Frequency	Hz	50/60
Type of data definition		ml
Speed (rpm)	min^{-1}	3230
Power input	W	168
Current draw	A	1.4
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	45

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

		Actual	Request 2015
01 Overall efficiency η_{es}	%	53.7	43.1
02 Measurement category		A	
03 Efficiency category		Static	
04 Efficiency grade N		72.6	62
05 Variable speed drive		Yes	

09 Power input P_{ed}	kW	0.16
09 Air flow q_v	m^3/h	805
09 Pressure increase p_{fs}	Pa	350
10 Speed (rpm) n	min^{-1}	3210
11 Specific ratio*		1.00

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

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

LU-132488

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Technical features

Mass	2.1 kg
Size	220 mm
Surface of rotor	Thick layer passivated
Material of electronics housing	Die-cast aluminium
Material of impeller	PA plastic
Housing material	PA plastic
Number of blades	7
Direction of rotation	Clockwise, seen on rotor
Type of protection	IP 54
Insulation class	"B"
Max. permissible ambient motor temp. (transp./ storage)	+ 80 °C
Min. permissible ambient motor temp. (transp./storage)	- 40 °C
Mounting position	Any
Condensate discharge holes	None, open rotor
Operation mode	S1
Motor bearing	Ball bearing
Technical features	- Speed adjustment input (230 V) - Motor current limit - Soft start - Over-temperature protected electronics / motor - Line undervoltage detection
Speed steps	2
Touch current acc. IEC 60990 (measuring network Fig. 4, TN system)	<= 3.5 mA
Motor protection	Locked-rotor protection
Cable exit	Variable
Protection class	I (if protective earth is connected by customer)
Product conforming to standard	EN 60335-1
Approval	CCC

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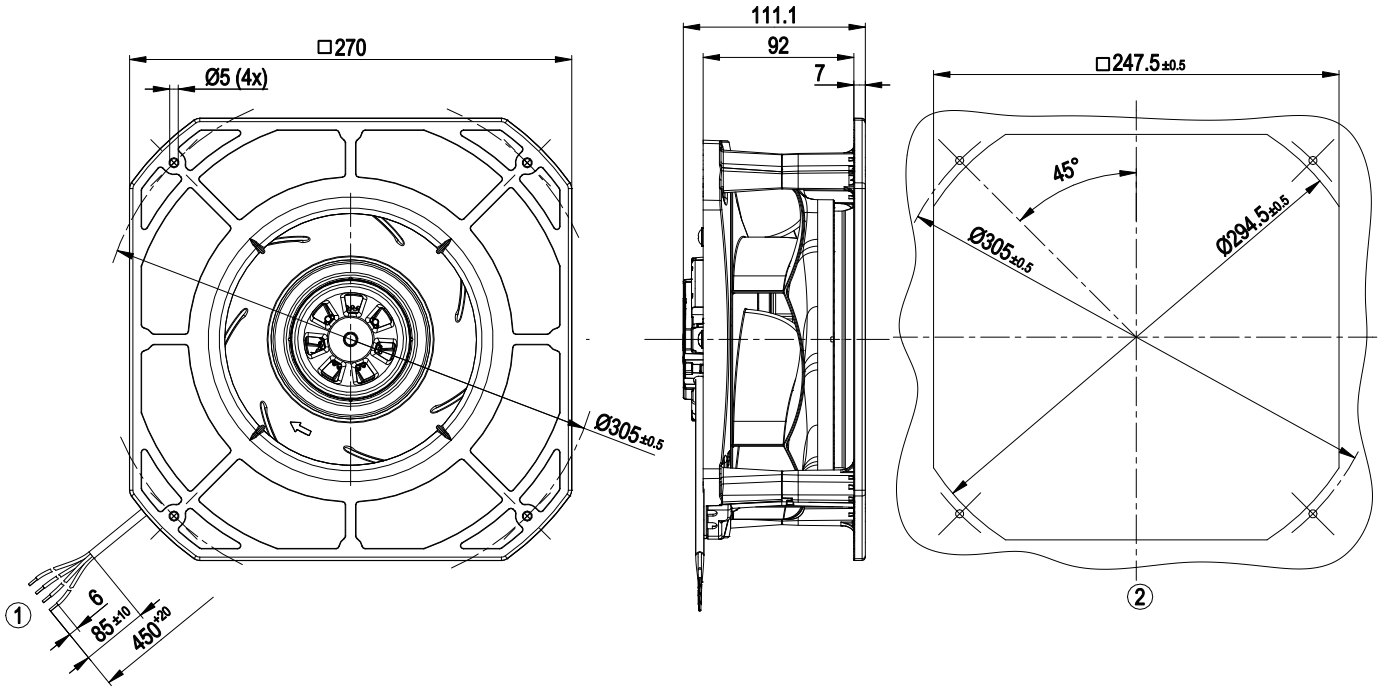
Product drawing



1	Connection line PVC 4G 0.5 mm², 4x lead tips crimped
2	Mounting dimensions

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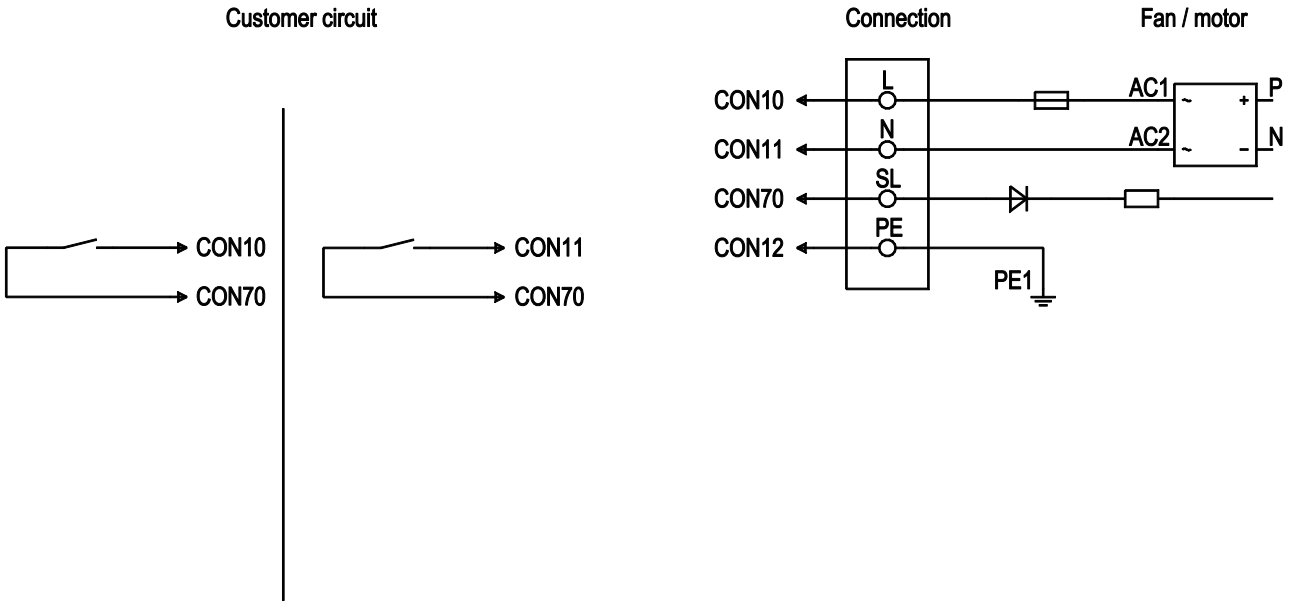
Connection screen



No.	Conn.	Designation	Colour	Function / assignment
	CON 10	L	black	Power supply 230 VAC, 50 - 60 Hz, see type plate for voltage range
	CON 11	N	blue	Neutral conductor
	CON 12	PE	green/yellow	Protective earth
	CON 70	SL	brown	Speed selection: switch open = speed 1; switch closed = speed 2

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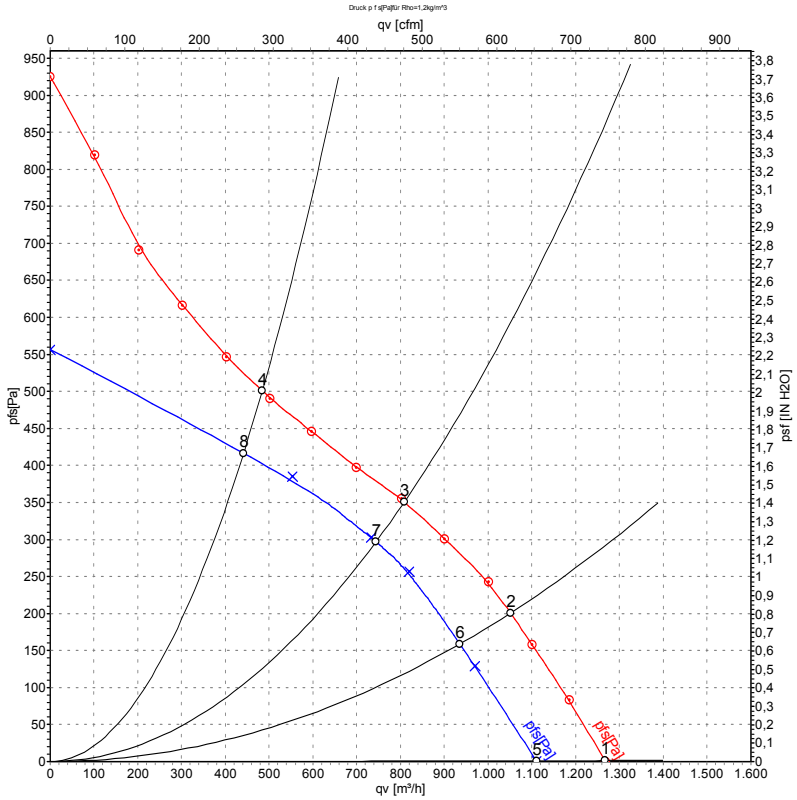
Charts: Air flow 50 Hz



Measurement: LU-132488-1
Measurement: LU-132858-1

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}	q_V	p_{fs}	q_V	p_{fs}
	V	Hz	min^{-1}	W	A	dB(A)	dB(A)	m^3/h	Pa	cfm	inH2O
1	230	50	3490	161	1.30	69	77	1265	0	745	0.00
2	230	50	3350	166	1.36	65	73	1050	200	620	0.80
3	230	50	3230	168	1.40	62	70	810	350	475	1.41
4	230	50	3240	165	1.35	64	72	485	500	285	2.01
5	230	50	3070	102	0.92	65	74	1110	0	655	0.00
6	230	50	2990	112	1.00	62	70	935	159	550	0.64
7	230	50	2945	120	1.07	60	68	745	297	440	1.19
8	230	50	3005	112	1.05	61	70	440	420	260	1.69

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