EC centrifugal module - RadiCal®

backward curved, single inlet

with housing

K3G190-RG07-12 ebmpapst Datasheet
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County court Stuttgart · HRA 590344

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Nominal data

Type	**K3G190-RG07-12**
Motor	**M3G055-CF**

Phase		1~
Nominal voltage	VAC	230
Frequency	Hz	50/60
Type of data definition		ml
Speed	min^{-1}	3165
Power input	W	82
Current draw	A	0.7
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	60

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

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Technical features

Mass	1.6 kg
Size	190 mm
Surface of rotor	Thick layer passivated
Material of electronics housing	Die-cast aluminium
Material of impeller	Plastic PA6, fibreglass-reinforced
Housing material	Plastic PA6, fibreglass-reinforced
Material of guard grille	Plastic PA66, fibreglass-reinforced
Number of blades	7
Direction of rotation	Clockwise, seen on rotor
Type of protection	IP 44; Depending on installation and position as per EN 60034-5
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	Rotor-side
Cooling bore / aperture	Rotor-side
Operation mode	S1
Motor bearing	Ball bearing
Technical features	- Output 10 VDC, max. 1.1 mA - Tach output - Motor current limit - Soft start - Control input 0-10 VDC / PWM - Over-temperature protected motor -
EMC interference immunity	Acc. to EN 61000-6-2 (industrial environment)
EMC harmonics	Acc. to EN 61000-3-2/3-3
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 60335-1

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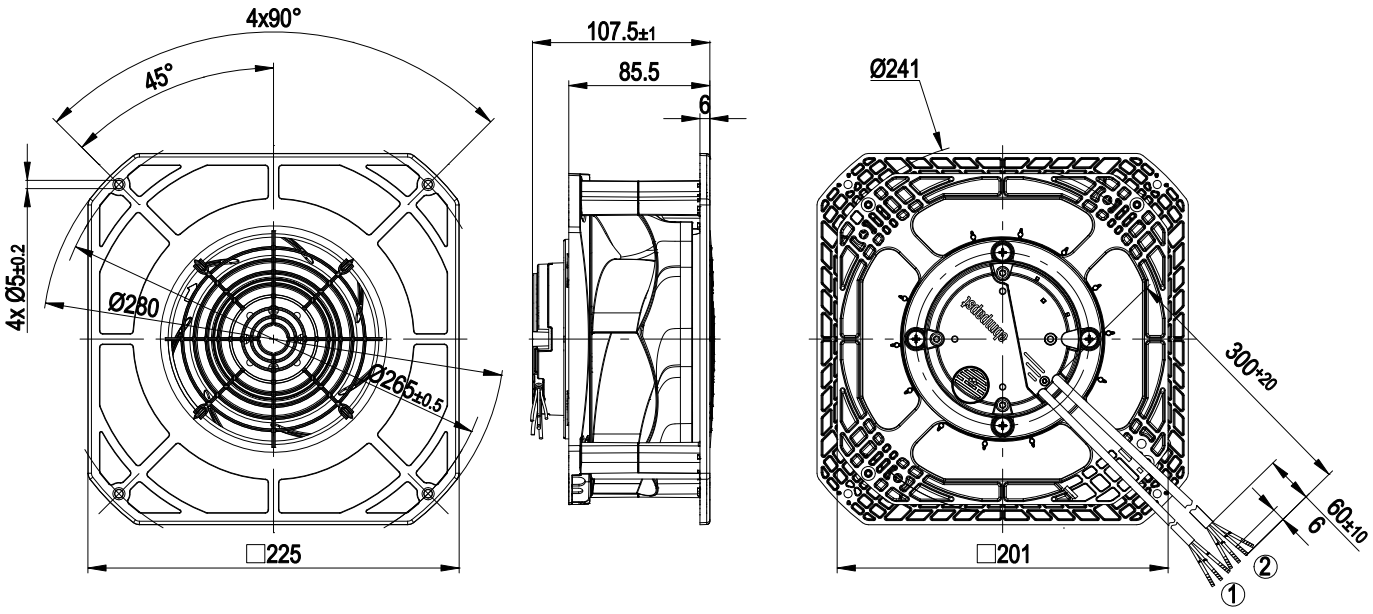
Product drawing



1	Connection line PVC 3G 0.5 mm², 3 x brass lead tips crimped
2	Control line PVC 4X 0.25 mm², 4x brass lead tips crimped

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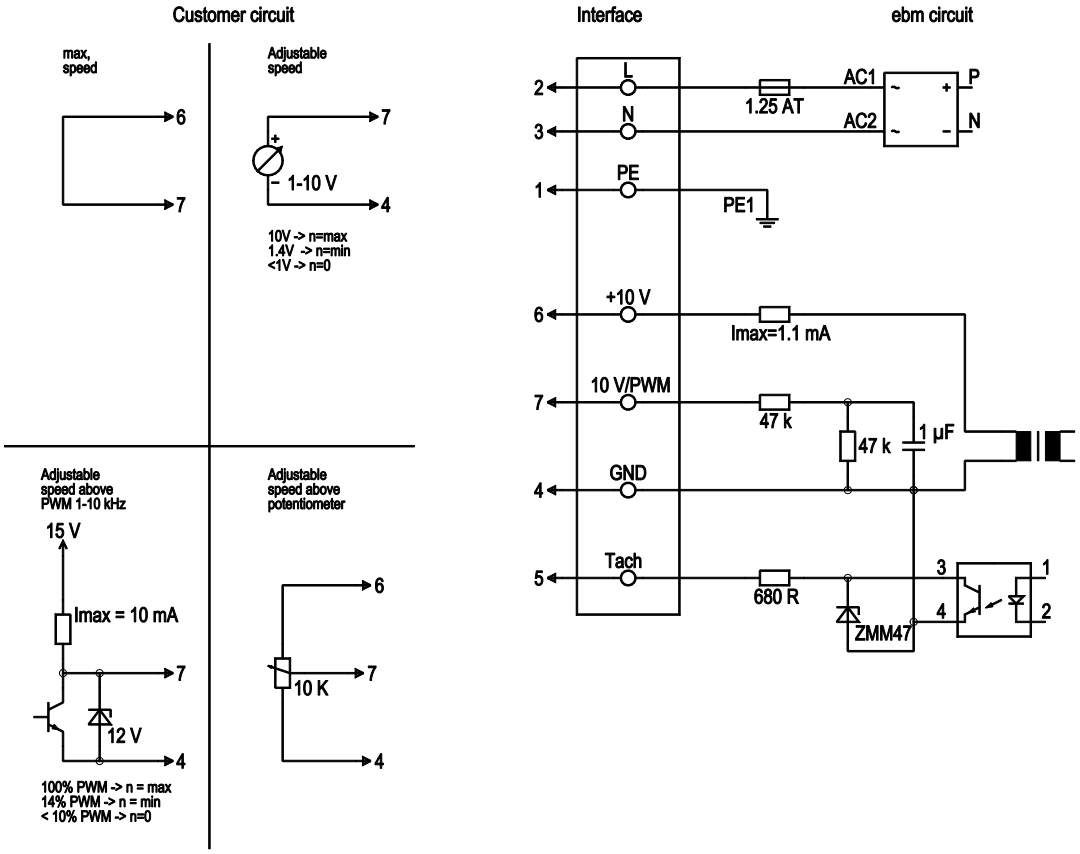
Connection screen



Line	No.	Signal	Colour	Function / assignment
	2	L	black	Power supply 230 VAC, 50-60 Hz, see type plate for voltage range
	3	N	blue	Neutral conductor
	1	PE	green/yellow	Protective earth
	6	10 V	red	Voltage output 10 V/ 1.1 mA, electrically isolated
	7	0-10 V PWM	yellow	Control input 0 -10 V or PWM, electrically isolated
	4	GND	blue	GND - Connection for control interface
	5	Tach	white	Tach output: open collector, 1 pulse per revolution, electrically isolated

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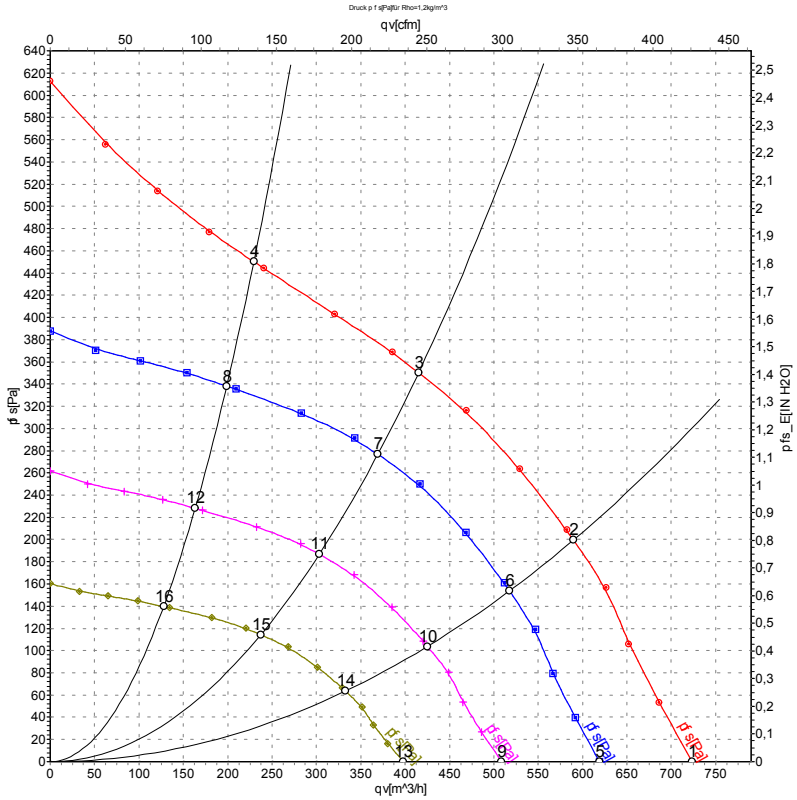
Charts: Air flow 50 Hz



Measurement: LU-125342

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	3270	68	0.52	66	74	725	0
2	230	50	3190	76	0.57	60	68	590	200
3	230	50	3165	82	0.70	58	66	415	350
4	230	50	3230	72	0.55	62	71	230	450
5	230	50	2800	43	0.33	63	70	620	0
6	230	50	2800	51	0.39	57	65	520	154
7	230	50	2800	56	0.43	55	63	370	277
8	230	50	2800	47	0.36	59	67	200	338
9	230	50	2300	24	0.18	58	66	510	0
10	230	50	2300	28	0.22	53	61	425	104
11	230	50	2300	31	0.24	51	59	305	187
12	230	50	2300	26	0.20	55	63	165	228
13	230	50	1800	11	0.09	53	61	400	0
14	230	50	1800	14	0.10	47	55	335	64
15	230	50	1800	15	0.11	45	54	235	114
16	230	50	1800	13	0.10	49	58	130	140

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