

K3G190-RG19-01

# EC centrifugal module - RadiCal

backward curved, single inlet

with housing

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## Nominal data

Type	K3G190-RG19-01	
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	min <sup>-1</sup>	3635
Power input	W	119
Current draw	A	0.9
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

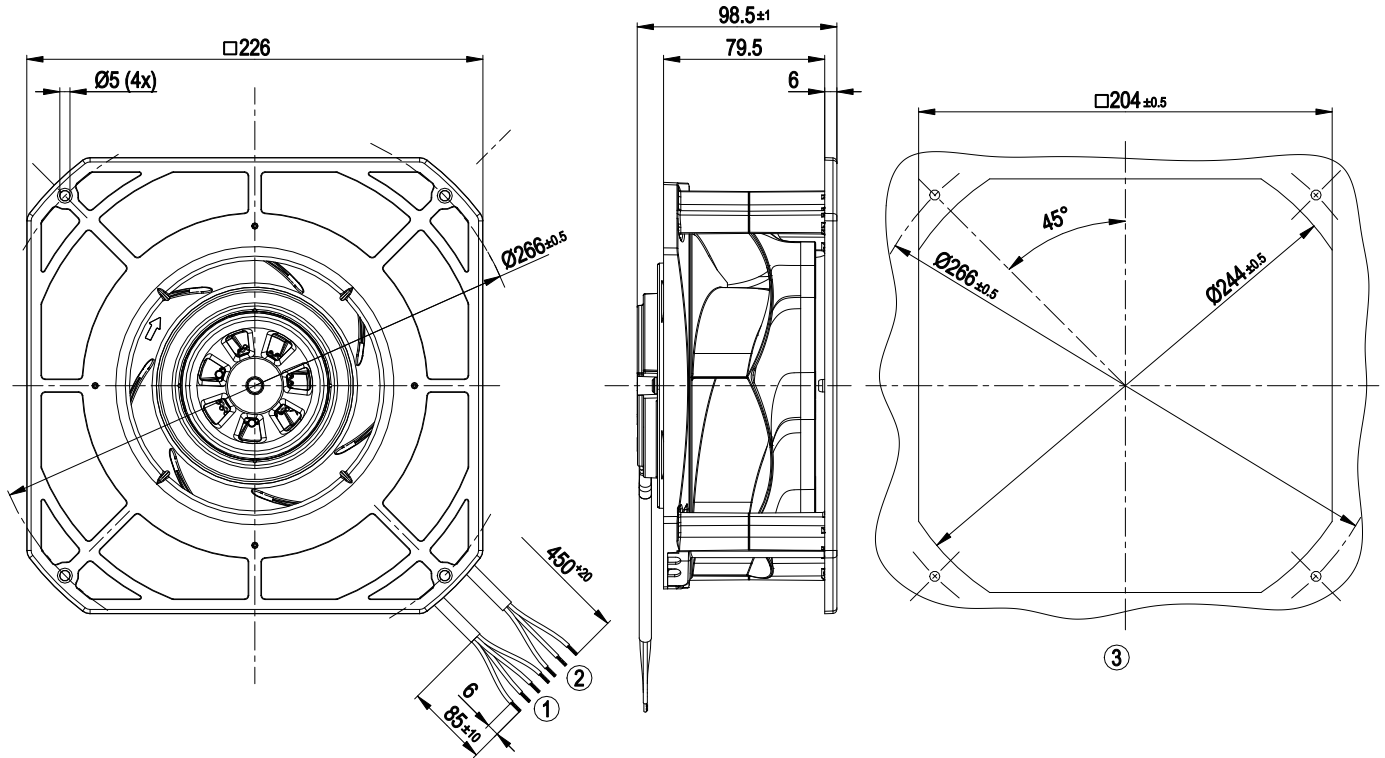
Mass	1.6 kg
Size	190 mm
Surface of rotor	Thick layer passivated
Material of electronics housing	Die-cast aluminium
Material of impeller	PA plastic
Number of blades	7
Direction of rotation	Clockwise, seen on rotor
Type of protection	IP54
Insulation class	"B"
Humidity class	F3-1
Max. permissible ambient motor temp. (transp./ storage)	+ 80 °C
Min. permissible ambient motor temp. (transp./storage)	- 40 °C
Mounting position	Any
Condensate discharge holes	Rotor-side
Operation mode	S1
Motor bearing	Ball bearing
Technical features	<ul style="list-style-type: none"> <li>- Output 10 VDC, max. 1.1 mA</li> <li>- Output limit</li> <li>- Motor current limit</li> <li>- Soft start</li> <li>- Control input 0-10 VDC / PWM</li> <li>- Control interface with SELV potential safely disconnected from the mains</li> <li>- Overvoltage detection</li> <li>- Over-temperature protected electronics / motor</li> <li>- Line undervoltage detection</li> </ul>
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)	<= 0.25 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; CE



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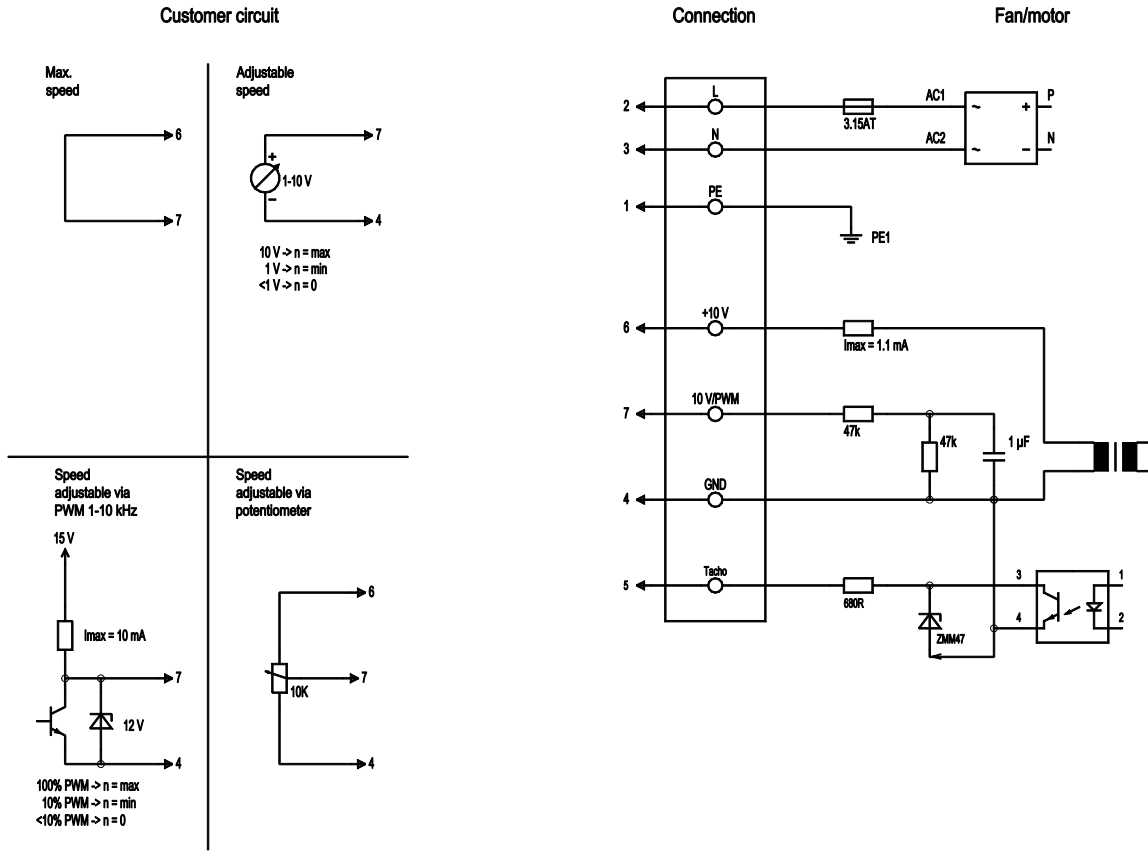
## Product drawing



1	Control line PVC 4x 0.25 mm <sup>2</sup> , 4x lead tips crimped
2	Connection line PVC 3x 0.5 mm <sup>2</sup> , 3x lead tips crimped
3	Mounting dimensions



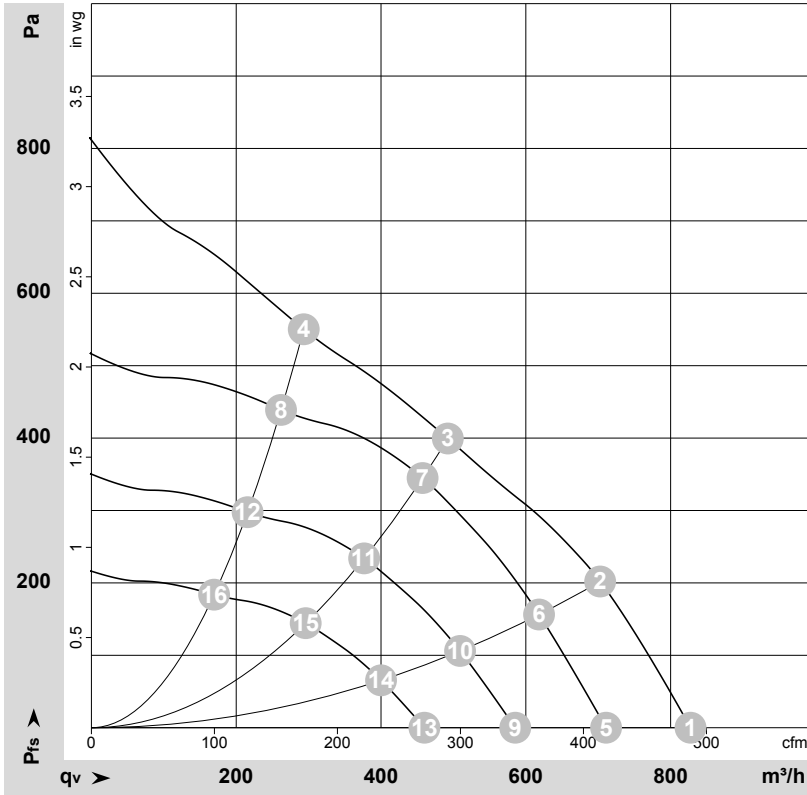
## Connection screen



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



## Charts: Air flow 50 Hz



$\rho = 1,15 \text{ kg/m}^3 \pm 2\%$

Measurement: LU-168963

Air performance measured as per ISO 5801 Installation category A. For detailed information on the measuring set-up, please contact ebmpapst. 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 <sub>ed</sub>	I	qv	p <sub>fs</sub>
	V	Hz	min <sup>-1</sup>	W	A	m <sup>3</sup> /h	Pa
1	230	50	3960	110	0.90	825	0
2	230	50	3870	119	0.90	705	200
3	230	50	3635	119	0.90	490	400
4	230	50	3805	119	0.90	295	550
5	230	50	3400	69	0.59	710	0
6	230	50	3400	78	0.65	620	157
7	230	50	3400	96	0.79	455	347
8	230	50	3400	85	0.71	260	439
9	230	50	2800	39	0.33	585	0
10	230	50	2800	43	0.36	510	107
11	230	50	2800	54	0.44	375	235
12	230	50	2800	47	0.40	215	297
13	230	50	2200	19	0.16	460	0
14	230	50	2200	21	0.18	400	66
15	230	50	2200	26	0.21	295	145
16	230	50	2200	23	0.19	170	184

U = Supply voltage · f = Frequency · n = Speed · P<sub>ed</sub> = Power input · I = Current draw · qv = Air flow · p<sub>fs</sub> = Pressure increase

