

K3G190-RD45-03

EC centrifugal module - RadiCal

backward curved, single inlet
with housing



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Nominal data

Type	K3G190-RD45-03	
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 ⁻¹	4120
Power input	W	169
Current draw	A	1.35
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

Data according to ErP directive

Installation category	A
Efficiency category	Static
Variable speed drive integrated	Integrated
Specific ratio*	1,01

* Specific ratio = $1 + p_{fs} / 100\,000\text{ Pa}$

	Actual	Request 2013	Request 2015
Overall efficiency η_{es}	56	39,1	43,1
Efficiency grade N	74,9	58	62
Power input P_{ed}	kW	0,16	
Air flow q_v	m ³ /h	565	
Pressure increase p_{fs}	Pa	524	
Speed n	min ⁻¹	4055	

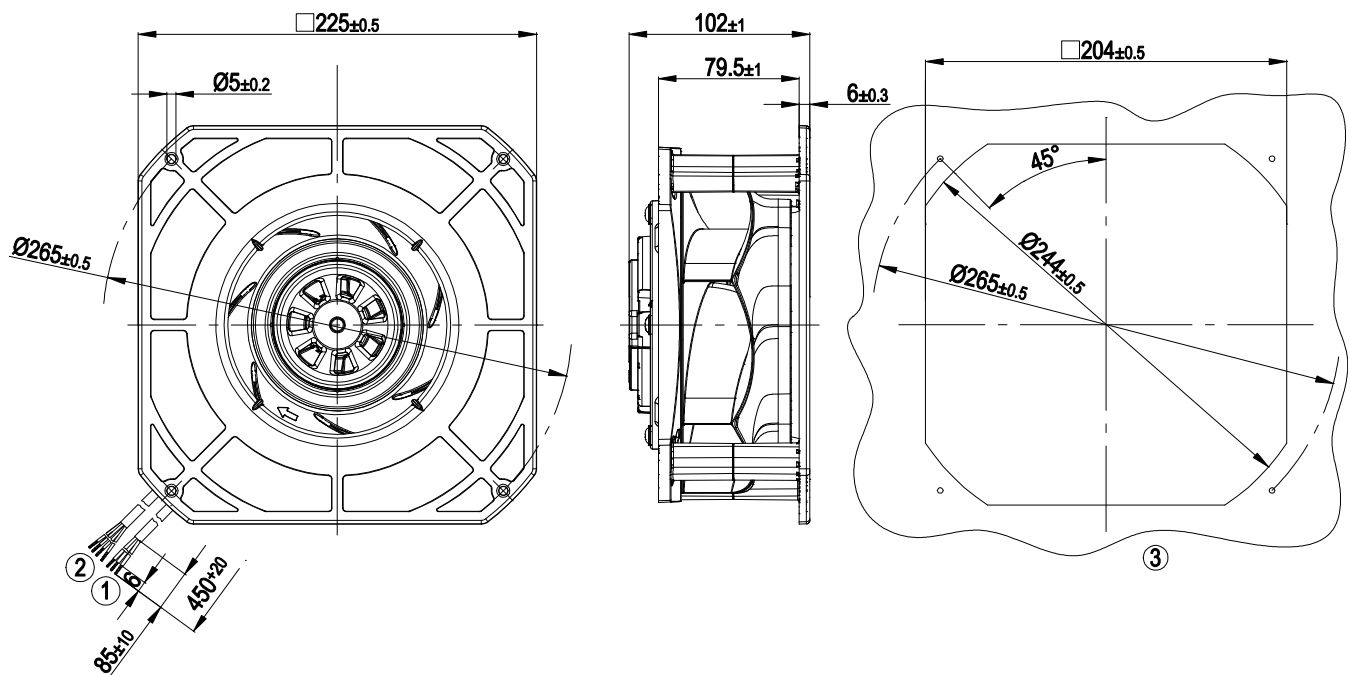
Data established at point of optimum efficiency



Technical features

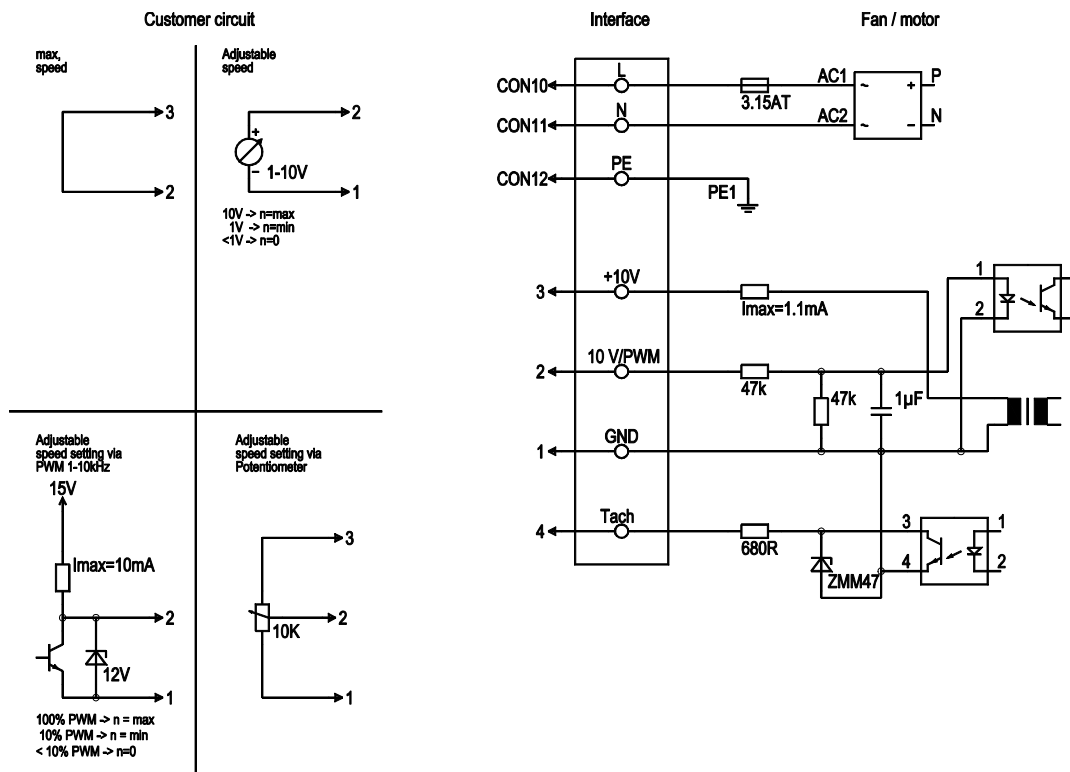
Mass	1.9 kg
Size	190 mm
Surface of rotor	Thick layer passivated
Material of impeller	Plastic PA6, fibreglass-reinforced
Housing material	Plastic PA6, fibreglass-reinforced
Number of blades	7
Direction of rotation	Clockwise, seen on rotor
Type of protection	IP 54
Insulation class	"B"
Max. permissible ambient motor temp. (transp./ storage)	+ 80 °C
Min. permissible ambient motor temp. (transp./storage)	- 40 °C
Mounting position	Shaft horizontal or rotor on bottom; rotor on top on request
Condensate discharge holes	None, open rotor
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 electronics / motor - Line undervoltage detection
Leakage current	<= 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

Product drawing



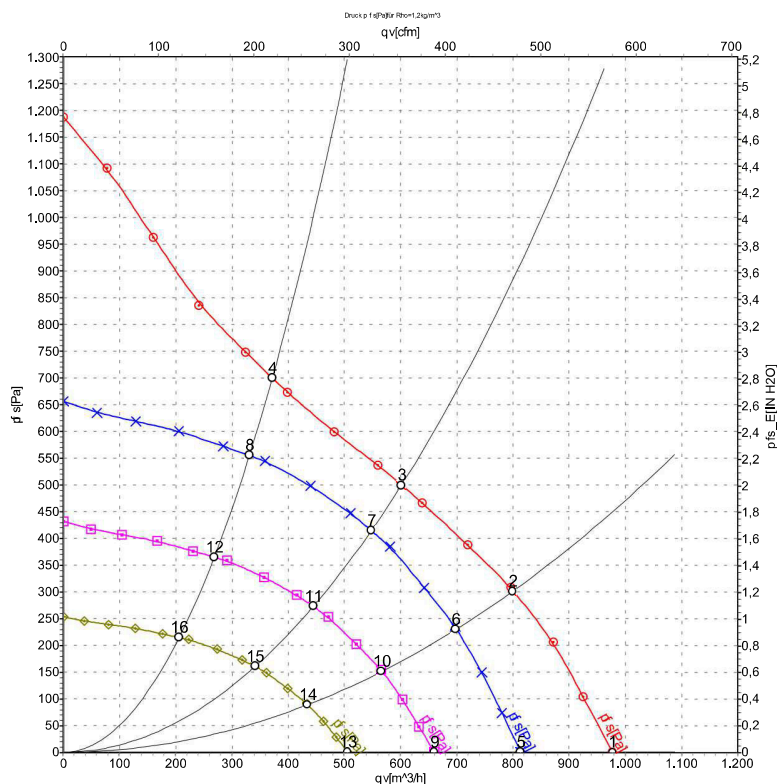
1	Connection line PVC 3G AWG20, 3x brass lead tips crimped
2	Control line PVC 4X AWG22, 4 x brass lead tips crimped
3	Mounting dimensions

Connection screen



Line	No.	Signal	Colour	Function / assignment
	CON10	L	black	Power supply 230 VAC, 50-60 Hz, for voltage range refer to rating plate
	CON11	N	blue	Neutral conductor
	CON12	PE	green/yellow	Protective earth
	1	GND	blue	GND - Connection for control interface
	2	0- 10V PWM	yellow	Control input 0 - 10 V or PWM, electrically isolated
	3	10V/ max 1.1mA	red	Voltage output 10V/ 1.1mA, electrically isolated, not short-circuit-proof.
	4	Tacho	white	Tach output: open collector, 1 pulse per revolution, electrically isolated

Charts: Air flow 50 Hz



Measurement: LU-132500

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	4440	161	1.35	72	81	975	0
2	230	50	4235	165	1.35	67	75	800	300
3	230	50	4120	169	1.35	63	72	600	500
4	230	50	4150	160	1.35	66	74	370	700
5	230	50	3700	93	0.81	69	77	815	0
6	230	50	3700	110	0.93	64	72	700	233
7	230	50	3700	125	1.06	61	70	550	415
8	230	50	3700	114	0.97	64	72	330	556
9	230	50	3000	50	0.43	64	73	660	0
10	230	50	3000	59	0.50	59	68	565	153
11	230	50	3000	67	0.57	56	65	445	273
12	230	50	3000	61	0.52	59	67	270	365
13	230	50	2300	22	0.19	58	67	505	0
14	230	50	2300	26	0.22	53	62	435	90
15	230	50	2300	30	0.26	51	59	340	160
16	230	50	2300	27	0.23	54	61	205	215