

K3G190-RC05-03

EC centrifugal module - RadiCal®

backward curved, single inlet
with housing



ebm-papst Mulfingen GmbH & Co. KG

Bachmühle 2 · D-74673 Mulfingen

Phone +49 7938 81-0

Fax +49 7938 81-110

sales@fansco.com

www.fansco.com

Limited partnership · Headquarters Mulfingen

County court Stuttgart · HRA 590344

General partner Elektrobau Mulfingen GmbH · Headquarters Mulfingen

County court Stuttgart · HRB 590142

Nominal data

Type	K3G190-RC05-03	
Motor	M3G055-BI	
Phase		1~
Nominal voltage	VAC	230
Nominal voltage range	VAC	200 .. 240
Frequency	Hz	50/60
Type of data definition		ml
Speed	min ⁻¹	3200
Power input	W	83
Current draw	A	0.75
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	60

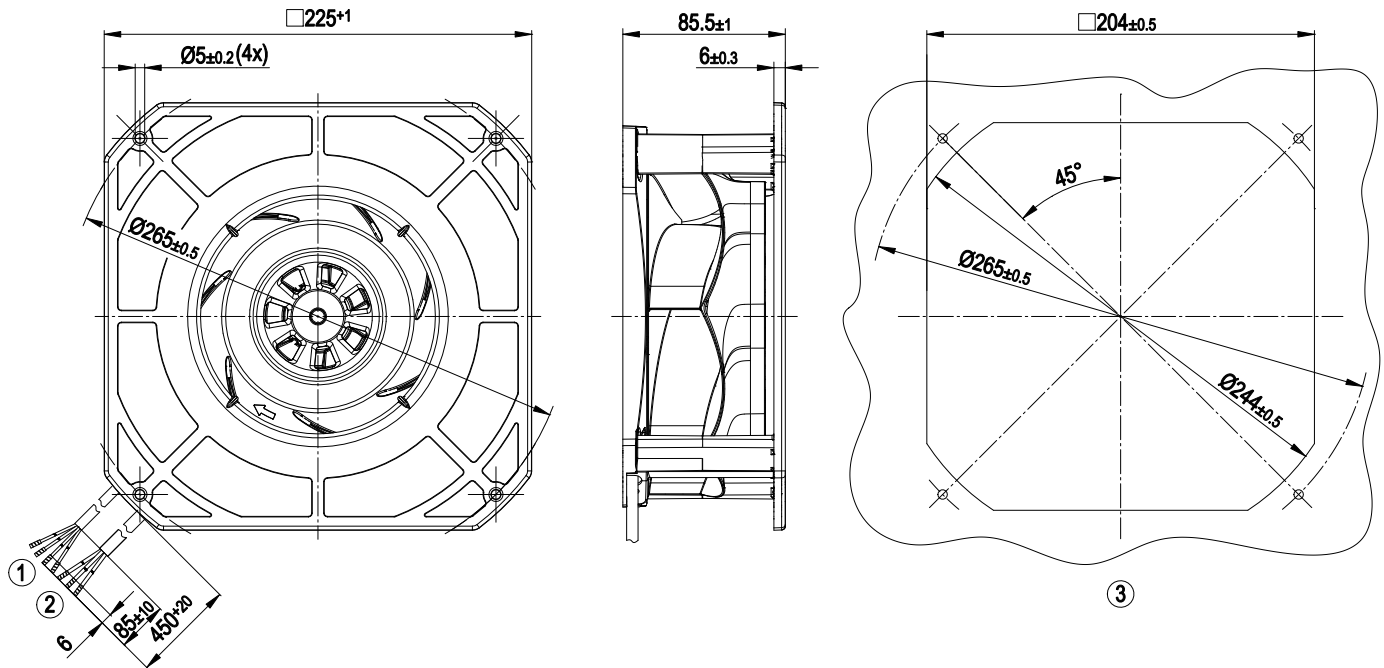
ml = Max. load · me = Max. efficiency · fa = Running at free air · cs = Customer specs · cu = Customer unit
Subject to alterations



Technical features

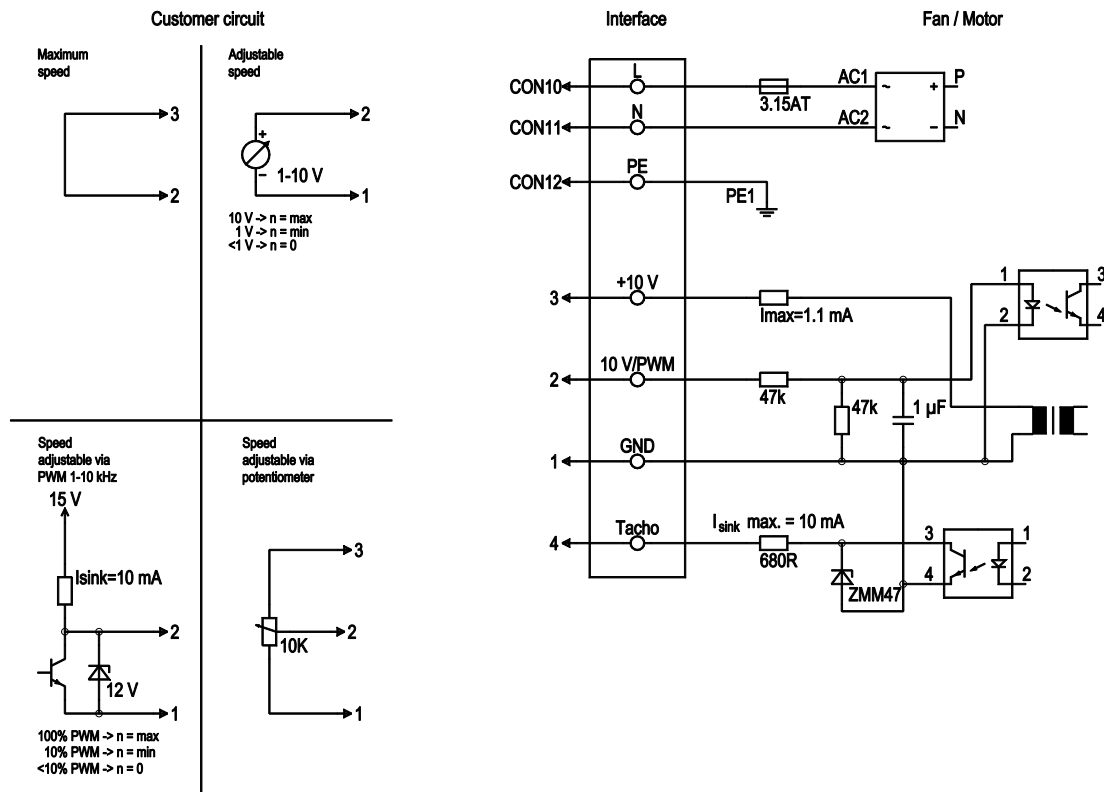
Mass	1.5 kg
Size	190 mm
Surface of rotor	Thick layer passivated
Material of electronics housing	Die-cast aluminium
Material of impeller	PA plastic
Housing material	PA plastic
Number of blades	7
Direction of rotation	Clockwise, seen on rotor
Type of protection	IP 54
Insulation class	"B"
Max. permissible 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	- Output 10 VDC, max. 1.1 mA - Tach output - 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
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 55022 (Class B, household environment), on account of the installation conditions, ferritic damping in the connection line may be required for the application.
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; EAC

Product drawing



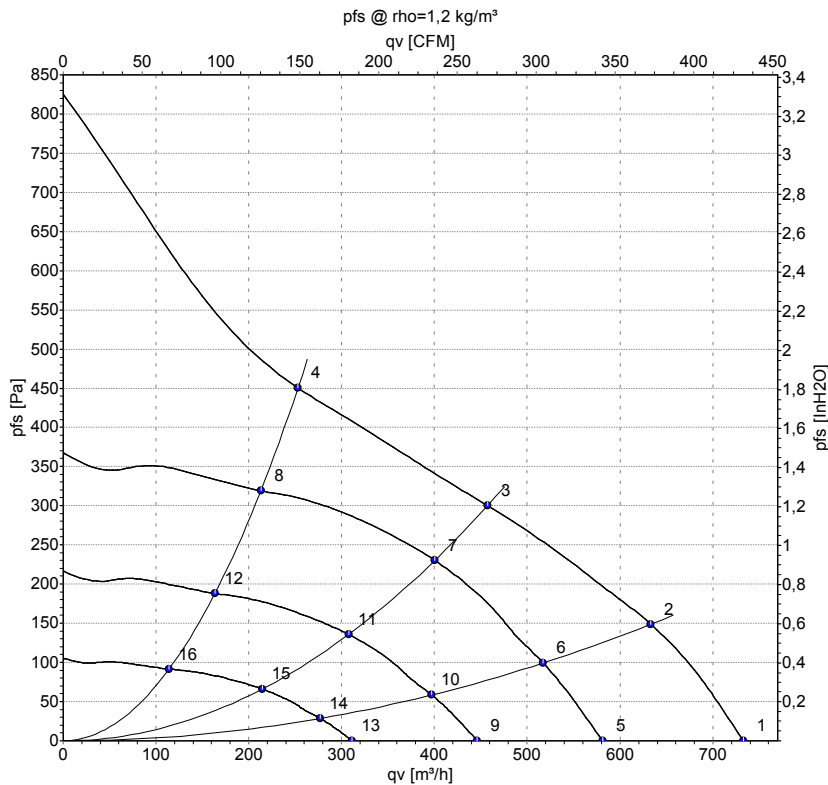
1	Connection line PVC AWG22, 4 x brass lead tips crimped
2	Connection line PVC AWG20, 3x brass lead tips crimped
3	Mounting dimensions

Connection screen



No.	Conn.	Designation	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 10 V / 1.1 mA, electrically isolated, not short-circuit-proof
	4	Tach	white	Tach output: open collector, 1 pulse per revolution, electrically isolated, I _{sink} max = 10 mA

Charts: Air flow 50 Hz



Measurement: LU-152954

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	qv	p _{fs}
	V	Hz	min ⁻¹	W	A	m³/h	Pa
1	230	50	3530	83	0.75	735	0
2	230	50	3430	83	0.75	635	150
3	230	50	3200	83	0.75	455	300
4	230	50	3325	83	0.75	255	450
5	230	50	2800	49	0.45	580	0
6	230	50	2800	52	0.47	515	100
7	230	50	2800	57	0.52	400	230
8	230	50	2800	53	0.49	215	319
9	230	50	2150	24	0.25	445	0
10	230	50	2150	26	0.25	395	59
11	230	50	2150	28	0.28	310	136
12	230	50	2150	26	0.27	165	188
13	230	50	1500	10.0	0.10	310	0
14	230	50	1500	11	0.11	275	29
15	230	50	1500	12	0.12	215	66
16	230	50	1500	11	0.12	115	91

U = Supply voltage · f = Frequency · n = Speed · P_{ed} = Power input · I = Current draw · qv = Air flow · p_{fs} = Pressure increase