K3G190-RC05-03

EC centrifugal module - RadiCal

backward-curved, single-intake

with housing



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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
Method of obtaining data		ml
Speed	min^{-1}	3200
Power consumption	W	83
Current draw	A	0.75
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	60

ml = Max. load · me = Max. efficiency · fa = Free air · cs = Customer specification · ce = Customer equipment
Subject to change

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Technical description

Weight	1.5 kg
Fan size	190 mm
Rotor surface	Thick-film passivated
Electronics housing material	Die-cast aluminum
Impeller material	PA plastic
Housing material	PA plastic
Number of blades	7
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	IP54
Insulation class	"B"
Max. permitted ambient temp. for motor (transport/storage)	+ 80 °C
Min. permitted ambient temp. for motor (transport/storage)	- 40 °C
Installation position	Any
Condensation drainage holes	None, open rotor
Mode	S1
Motor storage	Ball bearing
Technical features	- Output 10 VDC, max. 1.1 mA - Tach output - Power limiter - Motor current limitation - Soft start - Control input 0-10 VDC / PWM - Control interface with SELV potential safely disconnected from the mains - Overvoltage detection - Thermal overload protection for electronics/motor - Line undervoltage detection
EMC immunity to interference	According to EN 61000-6-2 (industrial environment)
EMC circuit feedback	According to EN 61000-3-2/3
EMC interference emission	According to EN 55022 (class B, household environment), the application may require ferritic damping in the cable due to the conditions of installation.
Touch current according to IEC 60990 (measuring circuit Fig. 4, TN system)	<= 3.5 mA
Motor protection	Locked-rotor protection
With cable	Variable
Protection class	I (with customer connection of protective earth)
Conformity with standards	EN 60335-1; CE
Approval	CCC; CSA C22.2 No. 77; EAC; UL 2111

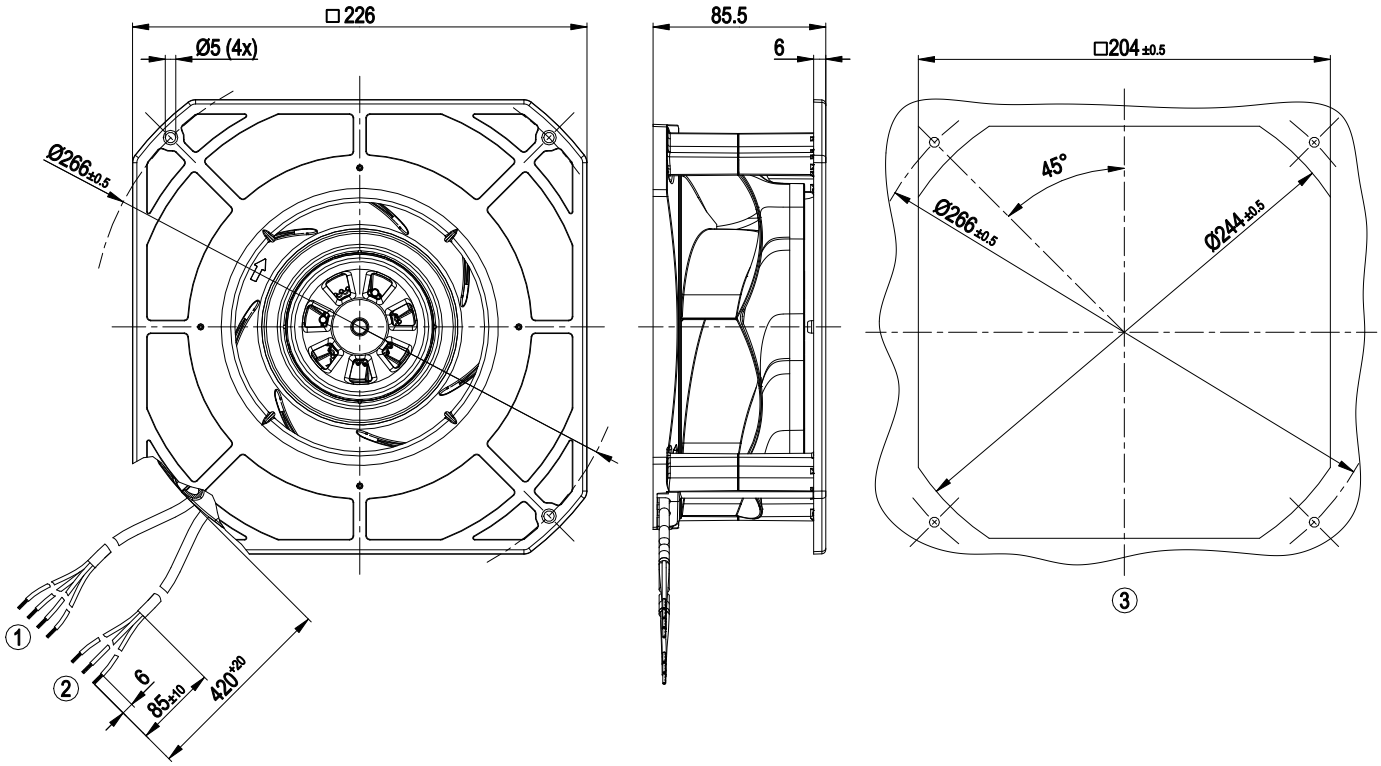
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Product drawing



1	Cable PVC AWG22, 4x crimped splices
2	Cable PVC AWG20, 3x crimped splices
3	Mounting dimensions

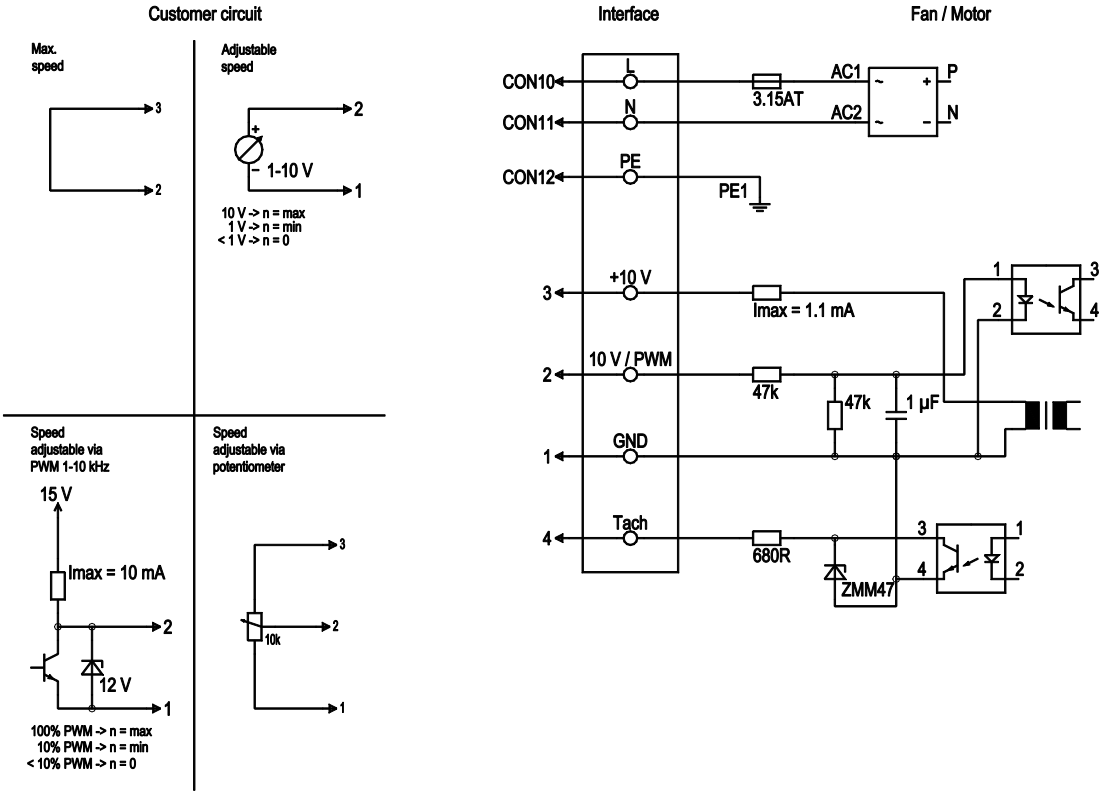
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Connection diagram



No.	Conn.	Designation	Color	Function/assignment
	CON10	L	black	Power supply 230 VAC, 50-60 Hz, see nameplate for voltage range
	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	10 V / max. 1,1 mA	red	Voltage output 10 VDC 1.1 mA, electrically isolated, short-circuit-proof
	4	Tacho	white	Tach output: open collector, 1 pulse per revolution, electrically isolated

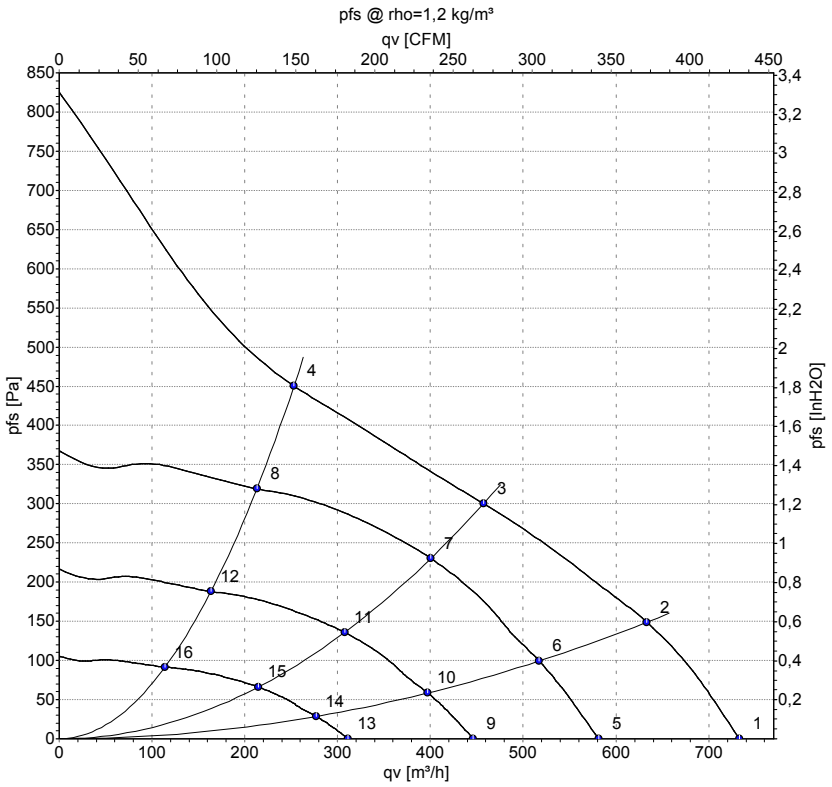
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Curves: Air performance 50 Hz



Measurement: LU-152954

Air performance measured according to ISO 5801 installation category A. For detailed information on the measurement setup, contact ebm-papst. Intake sound level: Sound power level according to ISO 13347 / sound pressure level measured at 1 m distance from fan axis. The values given are valid under the specified measuring conditions and may vary due to conditions of installation. For deviations from the standard configuration, the parameters have to be checked on the installed unit.

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	3530	83	0.75	66	73	735	0
2	230	50	3430	83	0.75	60	68	635	150
3	230	50	3200	83	0.75	58	66	455	300
4	230	50	3325	83	0.75	61	70	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 = Power supply · f = Frequency · n = Speed · P_{ed} = Power consumption · I = Current draw · LpA_{in} = Sound pressure level intake side · LwA_{in} = Sound power level intake side
qv = Air flow · p_{fs} = Pressure increase

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