K3G250-RD17-03

EC centrifugal module - RadiCal

backward-curved, single-intake

with housing

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Nominal data

Type	**K3G250-RD17-03**
Motor	**M3G055-CF**

Phase		1~
Nominal voltage	VAC	230
Nominal voltage range	VAC	200 .. 240
Frequency	Hz	50/60
Method of obtaining data		ml
Speed (rpm)	min^{-1}	1955
Power consumption	W	80
Current draw	A	0.7
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	2.3 kg
Fan size	250 mm
Rotor surface	Thick-film passivated
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 bearing	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	UL 1004-7 + 60730; C22.2 No.77 + CAN/CSA-E60730-1

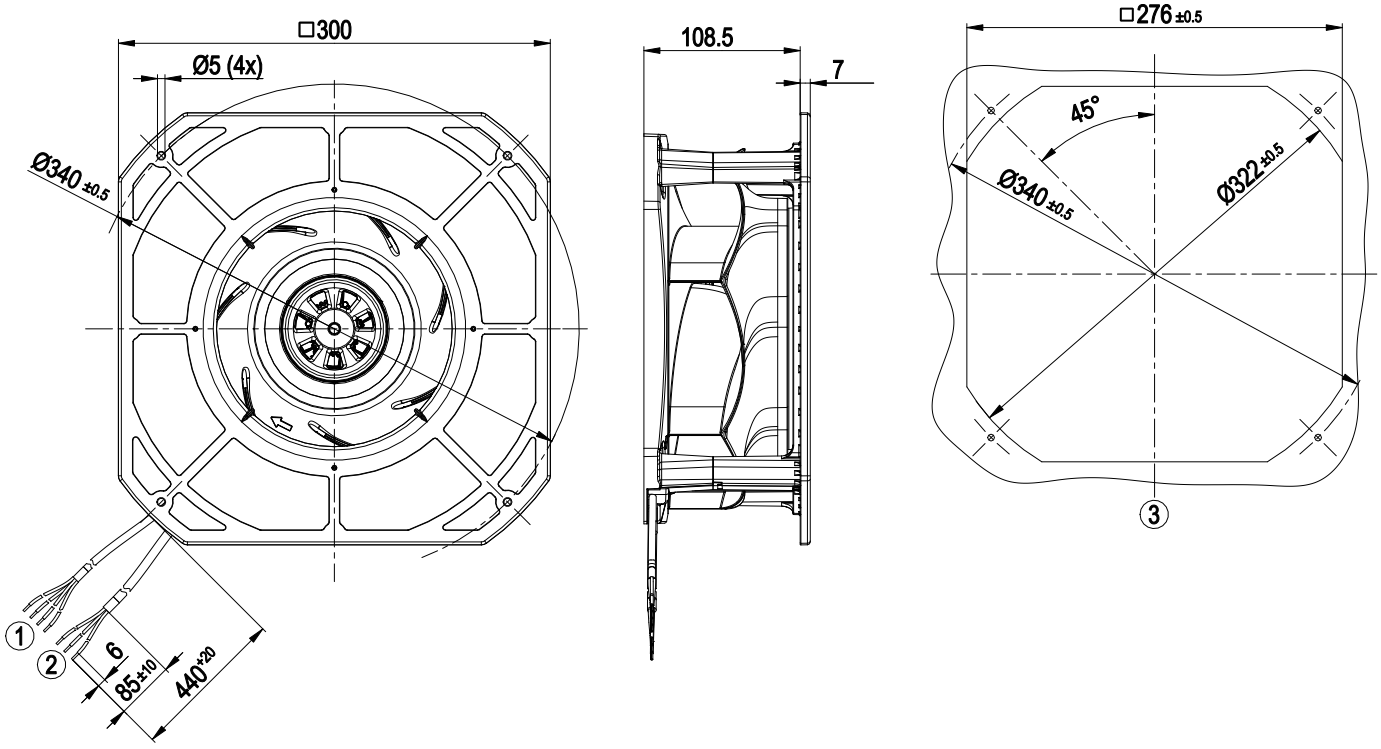
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Product drawing



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

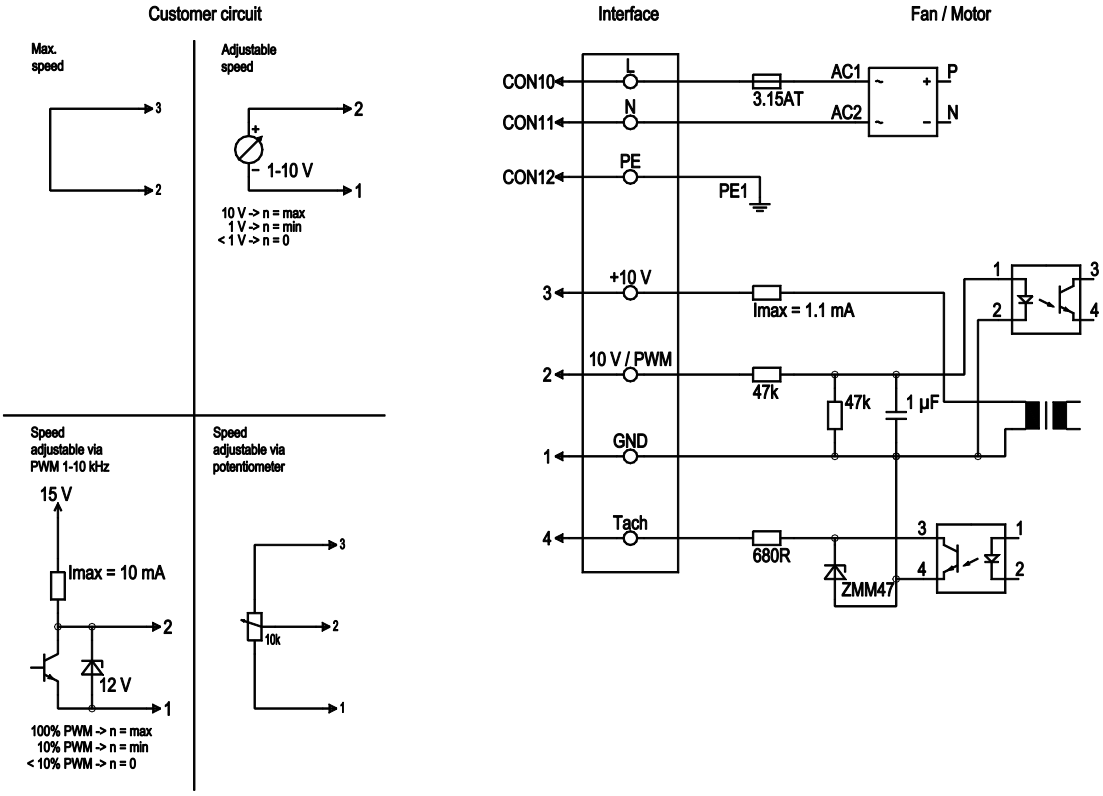
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Connection diagram



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

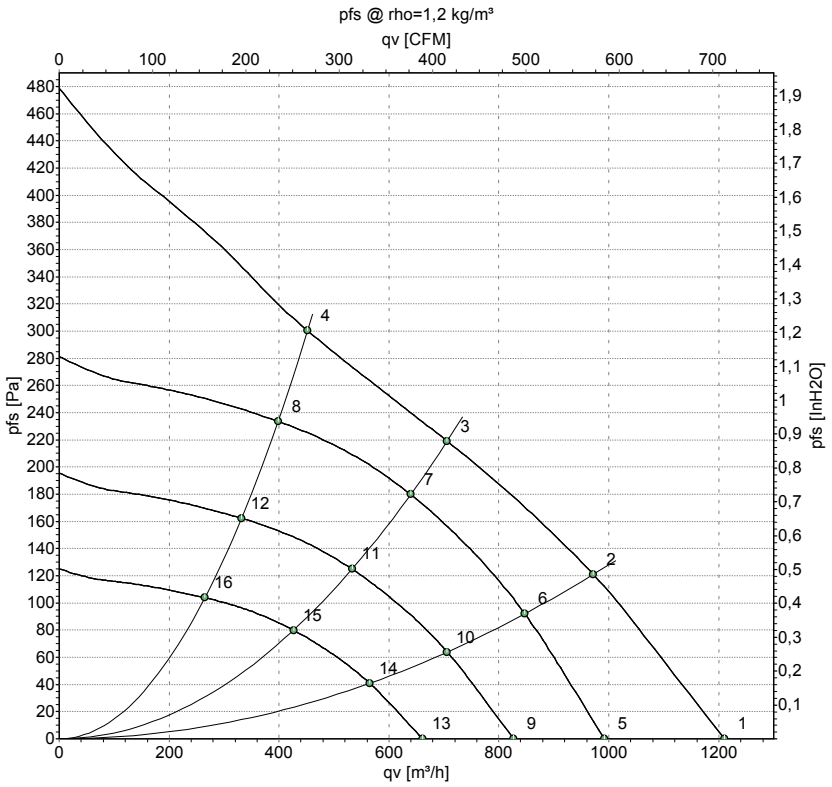
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Curves: Air performance 50 Hz



Measurement: LU-153278-1

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}	q_V	p_{fs}	q_V	p_{fs}
	V	Hz	min^{-1}	W	A	dB(A)	dB(A)	m^3/h	Pa	cfm	inH2O
1	230	50	2195	80	0.70	63	71	1210	0	710	0.00
2	230	50	2065	80	0.70	58	66	970	120	570	0.48
3	230	50	1955	80	0.70	53	61	705	220	415	0.88
4	230	50	2040	80	0.70	60	67	450	300	265	1.20
5	230	50	1800	45	0.42	58	66	990	0	585	0.00
6	230	50	1800	55	0.52	55	62	845	92	500	0.37
7	230	50	1800	63	0.59	51	58	640	180	375	0.72
8	230	50	1800	58	0.54	56	64	400	234	235	0.94
9	230	50	1500	26	0.24	54	61	825	0	485	0.00
10	230	50	1500	32	0.30	50	58	705	64	415	0.26
11	230	50	1500	36	0.34	46	54	535	125	315	0.50
12	230	50	1500	33	0.31	52	60	330	162	195	0.65
13	230	50	1200	13	0.12	48	56	660	0	390	0.00
14	230	50	1200	16	0.15	44	52	565	41	335	0.16
15	230	50	1200	19	0.17	41	48	425	80	250	0.32
16	230	50	1200	17	0.16	46	54	265	104	155	0.42

U = Power supply · f = Frequency · n = Speed (rpm) · P_{ed} = Power consumption · I = Current draw · LpA_{in} = Sound pressure level intake side · LwA_{in} = Sound power level intake side
q_V = Air flow · p_{fs} = Pressure increase

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