K3G225-RF53-11

EC centrifugal module - RadiCal

backward-curved, single-intake

with housing

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Nominal data

Type	**K3G225-RF53-11**
Motor	**M3G074-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}	3150
Power consumption	W	230
Current draw	A	1.85
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

Data according to Commission Regulation (EU) 327/2011

		Actual	Req. 2015
01 Overall efficiency η_{es}	%	58.2	44.6
02 Measurement category		A	
03 Efficiency category		Static	
04 Efficiency grade N		75.6	62
05 Variable speed drive		Yes	

09 Power consumption P_{ed}	kW	0.22
09 Air flow q_v	m^3/h	750
09 Pressure increase p_{fs}	Pa	555
10 Speed (rpm) n	min^{-1}	3175
11 Specific ratio*		1.01

Data obtained at optimum efficiency level.
The ErP data is determined using a motor-impeller combination in a standardized measurement setup.

* Specific ratio = 1 + p_{fs} / 100 000 Pa

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Technical description

Weight	3 kg
Size	225 mm
Motor size	74
Rotor surface	Galvanized
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"
Moisture (F) / Environmental (H) protection class	H1+
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
Cooling hole/opening	On rotor side
Mode	S1
Motor mounting	Ball bearing
Motor bearing	(sealed)
Technical features	- Output 10 VDC, max. 10 mA - Tach output - Power limiter - Soft start - Control input 0-10 VDC / PWM - Thermal overload protection for motor - Line undervoltage detection
EMC immunity to interference	According to EN 61000-6-2 (industrial environment)
EMC interference emission	According to EN 61000-6-4 (industrial environment)
Touch current according to IEC 60990 (measuring circuit Fig. 4, TN system)	<= 3.5 mA
Motor protection	Electronic motor protection
With cable	Variable
Protection class	I (with customer connection of protective earth)
Conformity with standards	EN 60335-1; CE

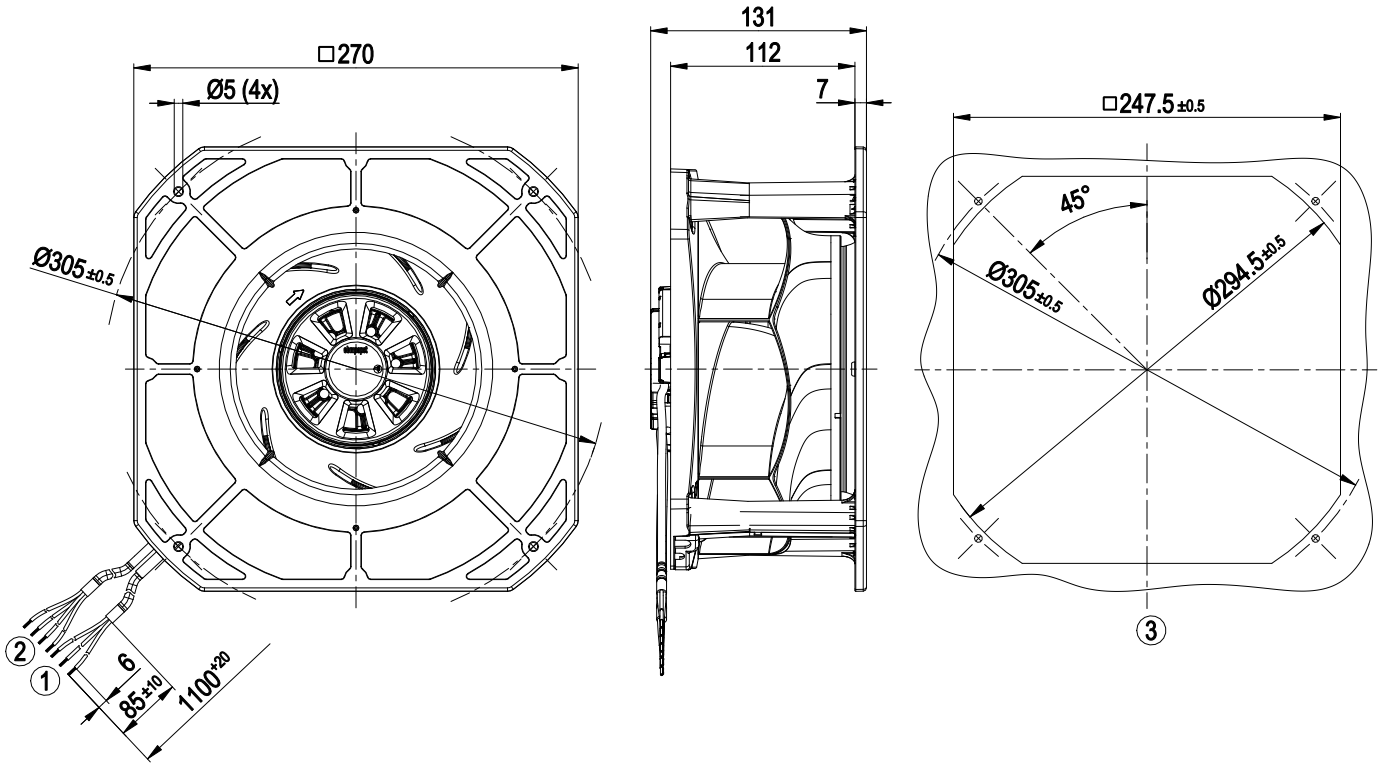
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Product drawing



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

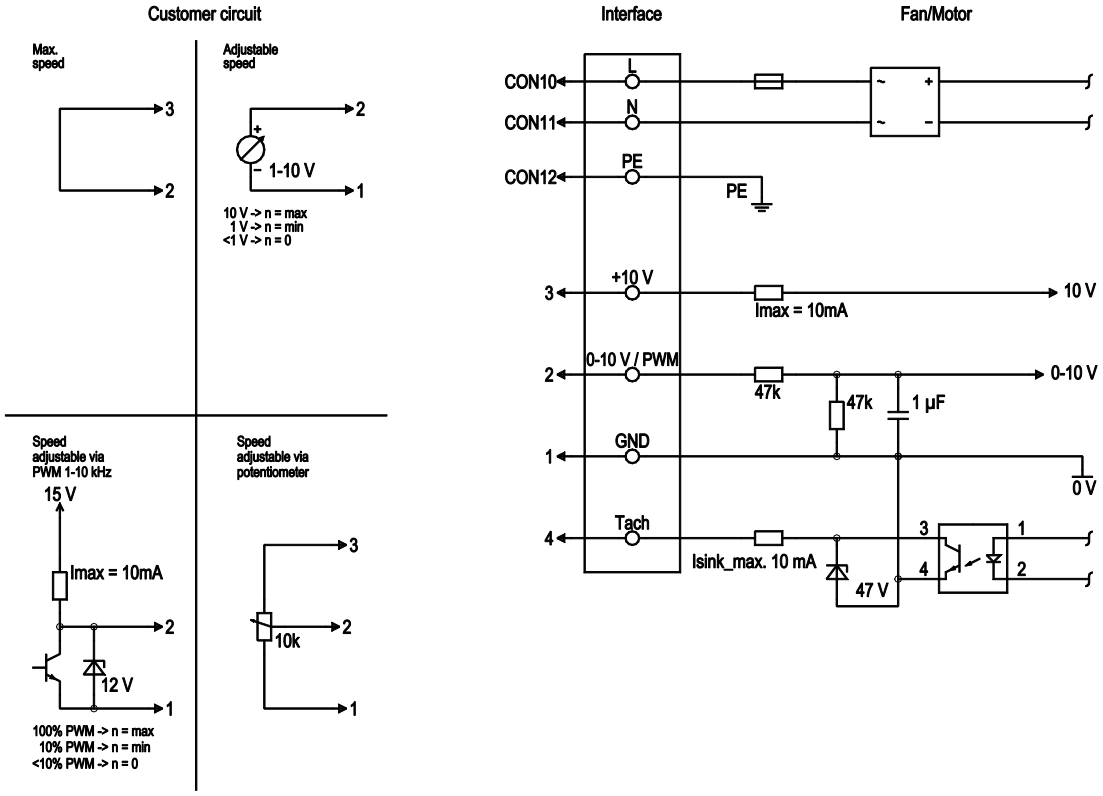
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Connection diagram



No.	Conn.	Designation	Color	Function/assignment
	CON10	L	black	Supply connection, power supply, phase, see nameplate for voltage range
	CON11	N	blue	Supply connection, power supply, neutral conductor, see nameplate for voltage range
	CON12	PE	green/yellow	Ground connection
	2	0- 10V PWM	yellow	0-10 V / PWM control input, Ri=100 kΩ, SELV
	4	Tach	white	Tach output, open collector, 1 pulse per revolution, Isink max = 10 mA, SELV
	3	+10 V	red	Fixed voltage output 10 VDC +/-3 %, Imax. 10 mA, short-circuit-proof, power supply for ext. devices (e.g. pot), SELV
	1	GND	blue	Reference ground for control interface, SELV

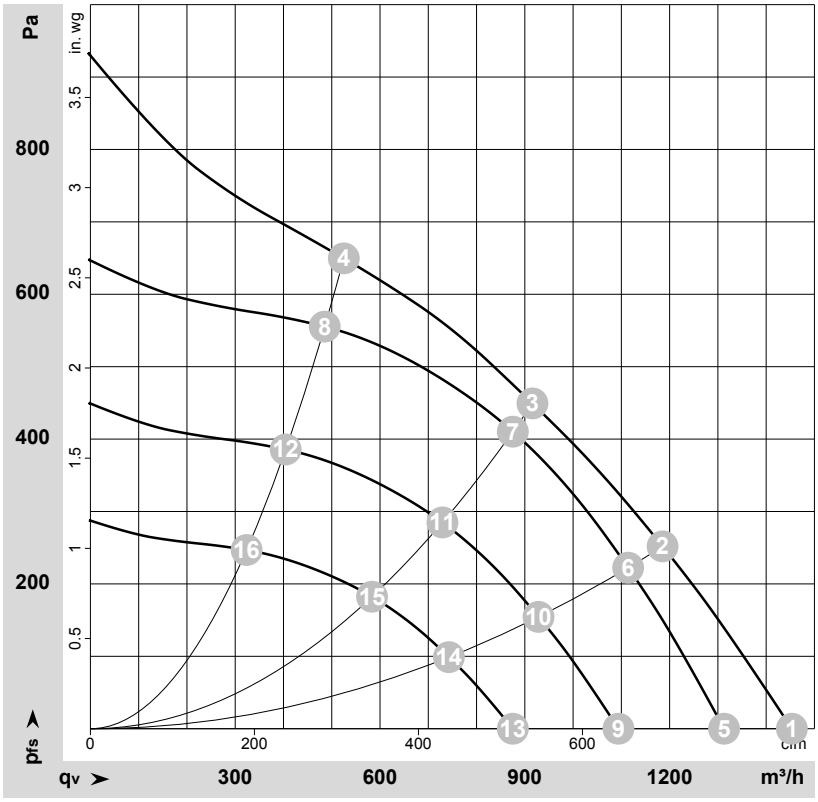
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Curves: Air performance 50 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-183574-1

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

	Wired	U	f	n	P_{ed}	I	q_V	p_{fs}	q_V	p_{fs}
		V	Hz	min^{-1}	W	A	m^3/h	Pa	cfm	in. wg
1	1~	230	50	3320	194	1.62	1455	0	855	0.00
2	1~	230	50	3190	219	1.80	1185	250	695	1.00
3	1~	230	50	3150	230	1.85	915	450	540	1.81
4	1~	230	50	3245	210	1.73	525	650	310	2.61
5	1~	230	50	3000	143	1.19	1315	0	775	0.00
6	1~	230	50	3000	182	1.49	1115	223	655	0.90
7	1~	230	50	3000	198	1.62	875	413	515	1.66
8	1~	230	50	3000	166	1.37	485	555	285	2.23
9	1~	230	50	2500	83	0.69	1095	0	645	0.00
10	1~	230	50	2500	105	0.86	930	155	545	0.62
11	1~	230	50	2500	115	0.94	730	287	430	1.15
12	1~	230	50	2500	96	0.79	405	386	240	1.55
13	1~	230	50	2000	42	0.35	875	0	515	0.00
14	1~	230	50	2000	54	0.44	745	99	435	0.40
15	1~	230	50	2000	59	0.48	585	184	345	0.74
16	1~	230	50	2000	49	0.41	325	247	190	0.99

Wired = Wiring · U = Power supply · f = Frequency · n = Speed (rpm) · P_{ed} = Power consumption · I = Current draw · q_V = Air flow · p_{fs} = Pressure increase

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