K3G355-RB03-03

EC centrifugal module - RadiCal

backward-curved, single-intake

with support bracket

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ErP2015 EXCEEDS THE NORM

Nominal data

Type	**K3G355-RB03-03**
Motor	**M3G074-DF**

Phase		1~
Nominal voltage	VAC	230
Nominal voltage range	VAC	200 .. 240
Frequency	Hz	50/60
Method of obtaining data		ml
Speed	min^{-1}	1250
Power consumption	W	168
Current draw	A	1.4
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 ErP Directive

		Actual	Req. 2015
01 Overall efficiency η_{es}	%	65.6	43.1
02 Measurement category		A	
03 Efficiency category		Static	
04 Efficiency grade N		84.5	62
05 Variable speed drive		Yes	

09 Power consumption P_{ed}	kW	0.16
09 Air flow q_v	m^3/h	1805
09 Pressure increase p_{fs}	Pa	191
10 Speed n	min^{-1}	1240
11 Specific ratio*		1.00

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

Fan size	355 mm
Impeller material	PP plastic
Support plate material	Sheet steel, galvanized
Support bracket material	Steel, galvanized and painted black
Number of blades	6
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	IP54
Insulation class	"B"
Moisture (F) / Environmental (H) protection class	F3-1
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 storage	Ball bearing
Technical features	- Output 10 VDC, max. 1.1 mA - Tach output - Motor current limitation - Soft start - Control input 0-10 VDC / PWM - Thermal overload protection for electronics/motor
Touch current according to IEC 60990 (measuring circuit Fig. 4, TN system)	<= 3.5 mA
Motor protection	PTC thermistor
With cable	Variable
Protection class	I (with customer connection of protective earth)
Conformity with standards	CE
Approval	CCC; CSA C22.2 No. 77; UL 2111

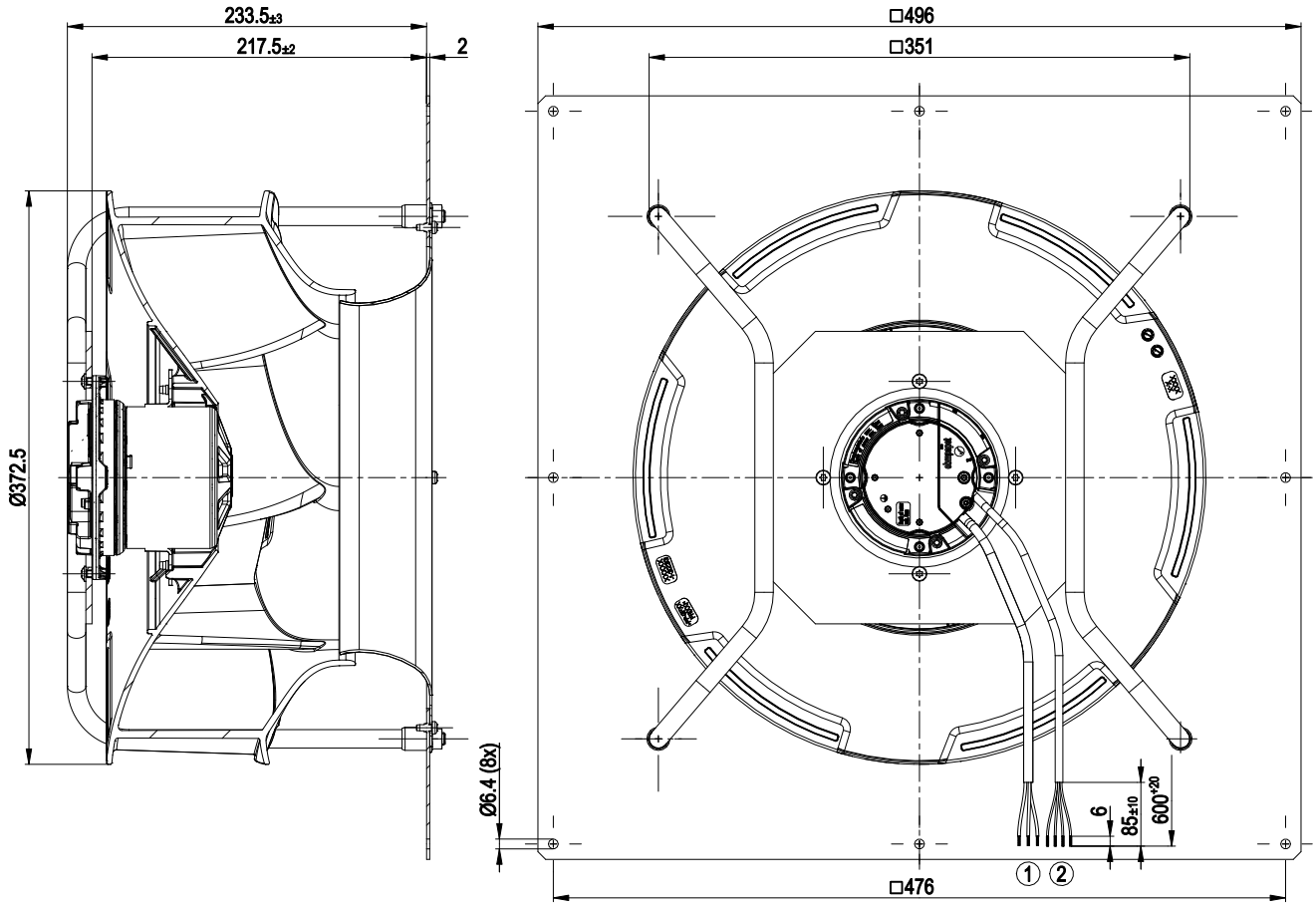
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Product drawing



1	Cable AWG20, 3x crimped splices
2	Cable AWG22, 4x crimped splices

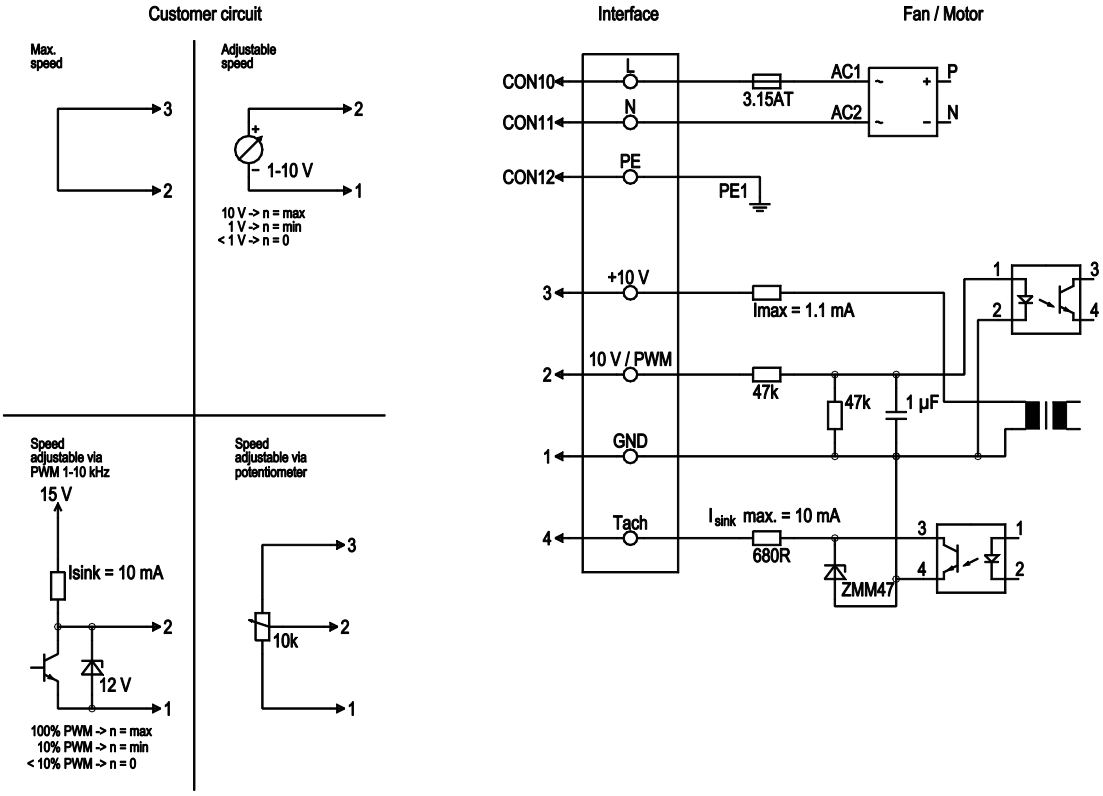
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Connection diagram



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	10V/ max 1.1mA	red	Voltage output 10 V / 1.1 mA, electrically isolated, not short-circuit-proof, Isink = 10 mA
	4	Tach	white	Tach output: Open collector, 1 pulse per revolution, electrically isolated, Isink max = 10 mA

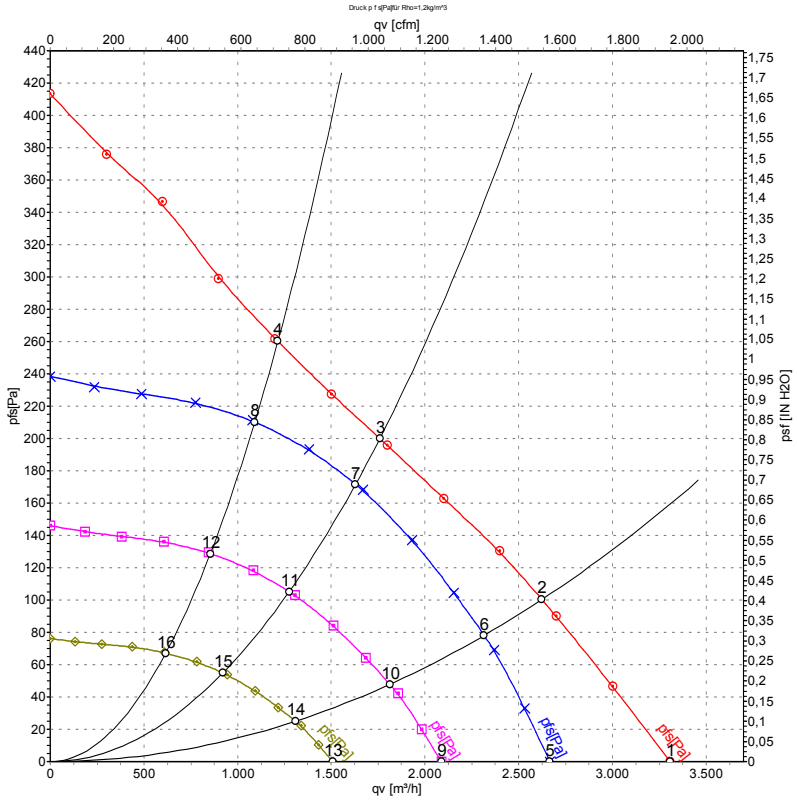
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Curves: Air performance 50 Hz



Measurement: LU-139927

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	1425	165	1.35	65	71	3310	0
2	230	50	1305	165	1.36	57	65	2625	100
3	230	50	1250	168	1.40	50	58	1760	200
4	230	50	1280	165	1.36	52	60	1215	260
5	230	50	1150	86	0.71	59	66	2665	0
6	230	50	1150	114	0.94	54	62	2315	78
7	230	50	1150	133	1.08	48	56	1630	172
8	230	50	1150	122	1.00	49	57	1090	211
9	230	50	900	41	0.34	53	60	2085	0
10	230	50	900	55	0.45	48	55	1810	48
11	230	50	900	64	0.52	42	50	1275	105
12	230	50	900	58	0.48	43	51	855	129
13	230	50	650	16	0.13	45	52	1505	0
14	230	50	650	21	0.17	40	47	1310	25
15	230	50	650	24	0.20	34	41	920	55
16	230	50	650	22	0.18	35	42	615	67

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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