K3G280-RB52-19

EC centrifugal module - RadiCal

backward-curved, single-intake

with support bracket

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Nominal data

Type	**K3G280-RB52-19**
Motor	**M3G074-CF**

Phase		1~
Nominal voltage	VAC	115
Nominal voltage range	VAC	100 .. 130
Frequency	Hz	50/60
Method of obtaining data		ml
Status		prelim.
Speed (rpm)	min^{-1}	1750
Power consumption	W	150
Current draw	A	2.3
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 (EN 17166)

		Actual	Req. 2015
01 Overall efficiency η_{es}	%	65.9	42.6
02 Measurement category		A	
03 Efficiency category		Static	
04 Efficiency grade N		85.3	62
05 Variable speed drive		Yes	

09 Power consumption P_{ed}	kW	0.14
09 Air flow q_v	m^3/h	1205
09 Pressure increase p_{fs}	Pa	247
10 Speed (rpm) n	min^{-1}	1740
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

LU-195078

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Technical description

Weight	7.3 kg
Size	280 mm
Motor size	74
Rotor surface	Thick-film passivated
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	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 bearing	Ball bearing
Technical features	- Output 10 VDC, max. 1.1 mA - 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 interference emission	According to EN 61000-6-3 (household environment)
Touch current according to IEC 60990 (measuring circuit Fig. 4, TN system)	<= 3.5 mA
Motor protection	Electronic motor protection
Protection class	I (with customer connection of protective earth)
Conformity with standards	CE
Approval	UL 1004-7 + 60730-1; CSA C22.2 No. 77 + CAN/CSA-E60730-1

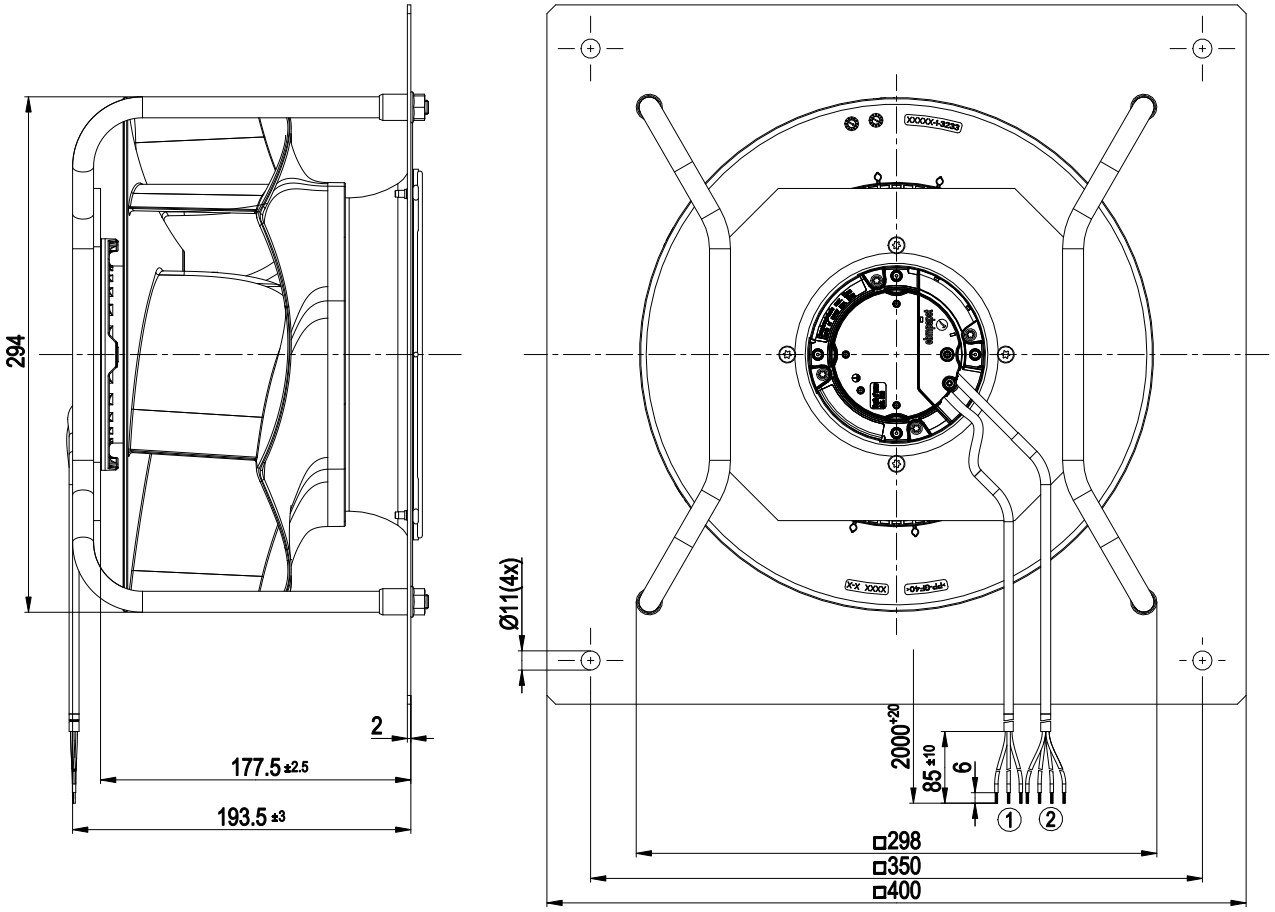
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Product drawing



1	Cable PVC AWG20		3x splice	2	Cable PVC AWG22
	4x splice				

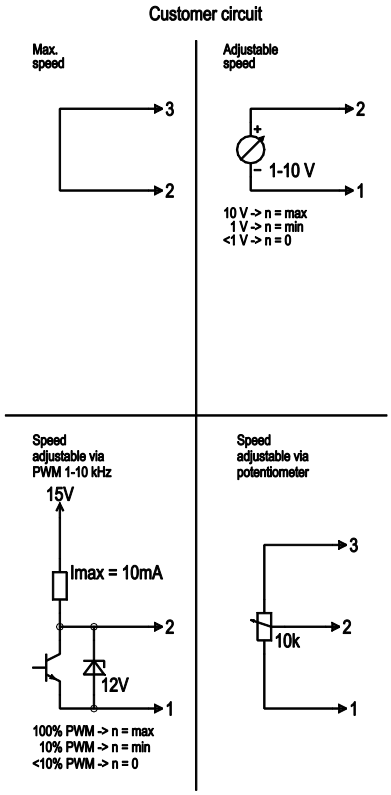
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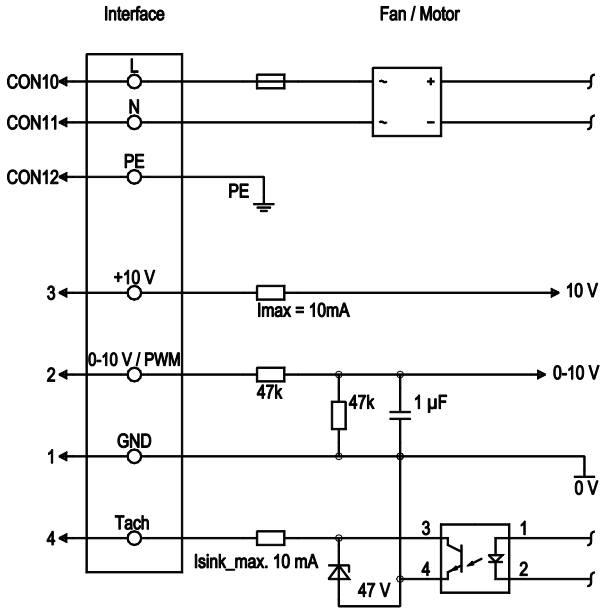
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Connection diagram





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

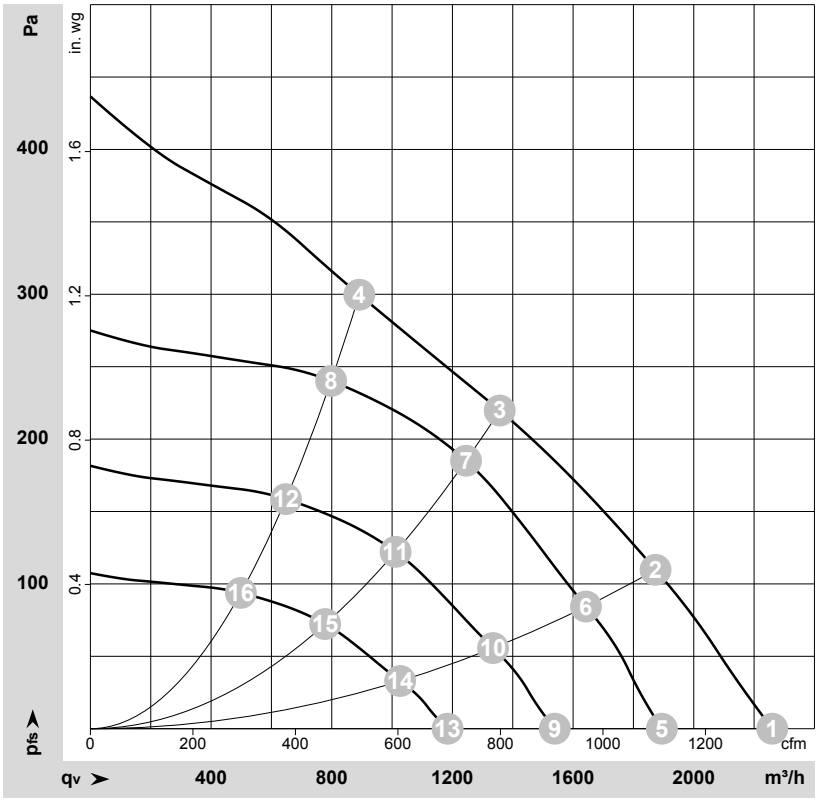
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Curves: Air performance 50 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-195078-1

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	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	in. wg
1	1~	115	50	1910	133	2.15	66	73	2260	0	1330	0.00
2	1~	115	50	1825	150	2.30	62	69	1875	110	1100	0.44
3	1~	115	50	1750	150	2.30	54	62	1355	220	800	0.88
4	1~	115	50	1785	150	2.30	56	63	890	300	525	1.20
5	1~	115	50	1600	78	1.27	62	69	1895	0	1115	0.00
6	1~	115	50	1600	97	1.55	58	65	1645	84	965	0.34
7	1~	115	50	1600	113	1.80	52	60	1245	186	735	0.75
8	1~	115	50	1600	103	1.65	53	61	800	240	470	0.96
9	1~	115	50	1300	42	0.68	56	63	1540	0	905	0.00
10	1~	115	50	1300	52	0.83	53	60	1335	56	785	0.22
11	1~	115	50	1300	60	0.96	47	55	1010	122	595	0.49
12	1~	115	50	1300	55	0.88	48	55	650	159	380	0.64
13	1~	115	50	1000	19	0.31	50	57	1185	0	695	0.00
14	1~	115	50	1000	24	0.38	46	54	1025	33	605	0.13
15	1~	115	50	1000	28	0.44	40	48	780	72	460	0.29
16	1~	115	50	1000	25	0.40	41	49	500	94	295	0.38

Wired = Wiring · U = Voltage · 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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