K3G225-RE27-17

EC centrifugal module - RadiCal

backward-curved, single-intake

with housing

ebm-papst Mulfingen GmbH & Co. KG
Bachmühle 2 · D-74673 Mulfingen
Phone +49 7938 81-0
Fax +49 7938 81-110
info1@de.ebmpapst.com
www.ebmpapst.com

Limited partnership · Headquarters Mulfingen
Amtsgericht (court of registration) Stuttgart · HRA 590344

General partner Elektrobau Mulfingen GmbH · Headquarters Mulfingen
Amtsgericht (court of registration) Stuttgart · HRB 590142

Nominal data

Type	**K3G225-RE27-17**
Motor	**M3G055-DF**

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}	3030
Power consumption	W	210
Current draw	A	2
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	40

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}	%	56.5	44.3
02 Measurement category		A	
03 Efficiency category		Static	
04 Efficiency grade N		74.3	62
05 Variable speed drive		Yes	

09 Power consumption P_{ed}	kW	0.2
09 Air flow q_v	m^3/h	905
09 Pressure increase p_{fs}	Pa	415
10 Speed (rpm) n	min^{-1}	3015
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-185847

EC centrifugal module - RadiCal

backward-curved, single-intake

with housing

Technical description

Weight	2.5 kg
Fan size	225 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"
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
Mode	S1
Motor bearing	Ball bearing
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
Electrical hookup	STK
Motor protection	Electronic motor protection
With cable	Variable
Protection class	I (with customer connection of protective earth)
Conformity with standards	EN 60335-1; CE

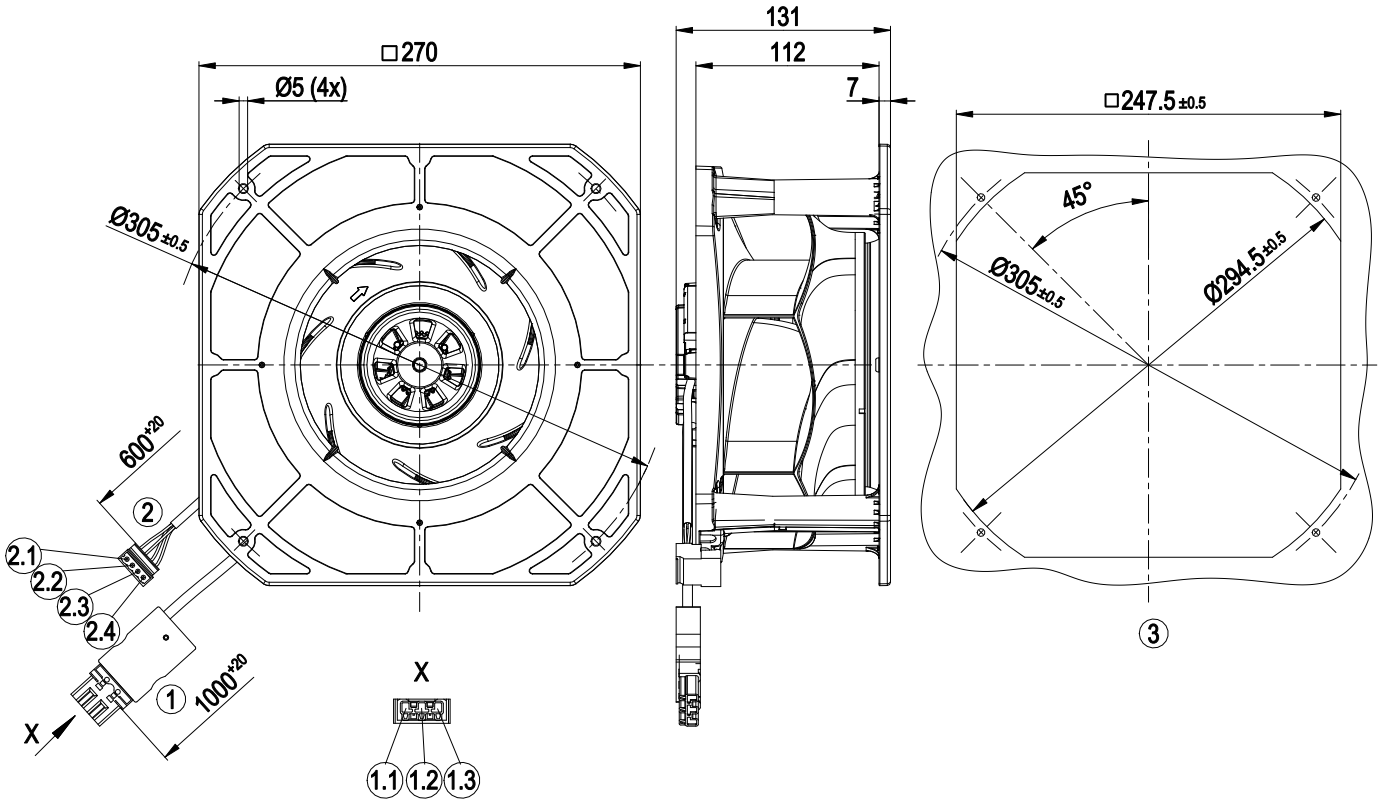
ebm-papst Mulfingen GmbH & Co. KG · Bachmühle 2 · D-74673 Mulfingen · Phone +49 (0) 7938 81-0 · Fax +49 (0) 7938 81-110 · info1@de.ebmpapst.com · www.ebmpapst.com

EC centrifugal module - RadiCal

backward-curved, single-intake

with housing

Product drawing



1	Cable PVC AWG20, 3-pole connector housing WAGO 770-001/K011-0174/000-400
1.1	N (blue)
1.2	PE (green/yellow)
1.3	L (black)
2	Cable PVC 4X AWG22, with WAGO connector housing 231-604
2.1	Tach (white)
2.2	+10 V (red)
2.3	0-10 V / PWM (yellow)
2.4	GND (blue)
3	Mounting dimensions

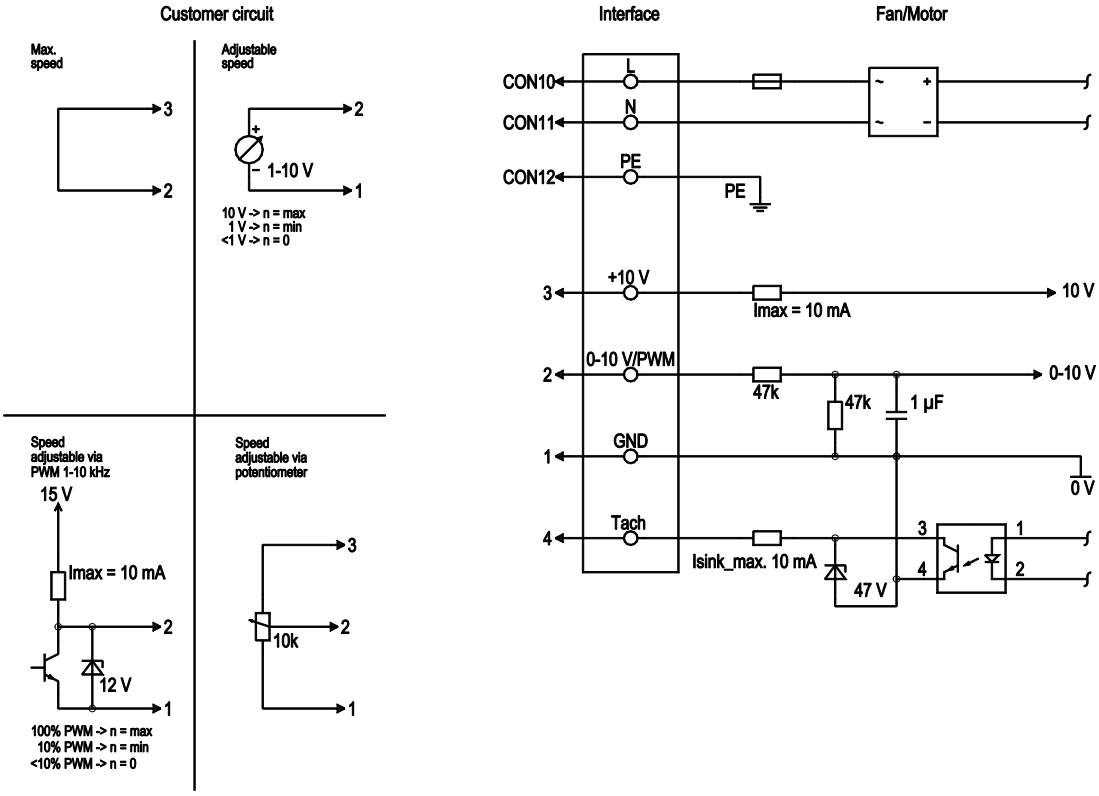
ebm-papst Mulfingen GmbH & Co. KG · Bachmühle 2 · D-74673 Mulfingen · Phone +49 (0) 7938 81-0 · Fax +49 (0) 7938 81-110 · info1@de.ebmpapst.com · www.ebmpapst.com

EC centrifugal module - RadiCal

backward-curved, single-intake

with housing

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

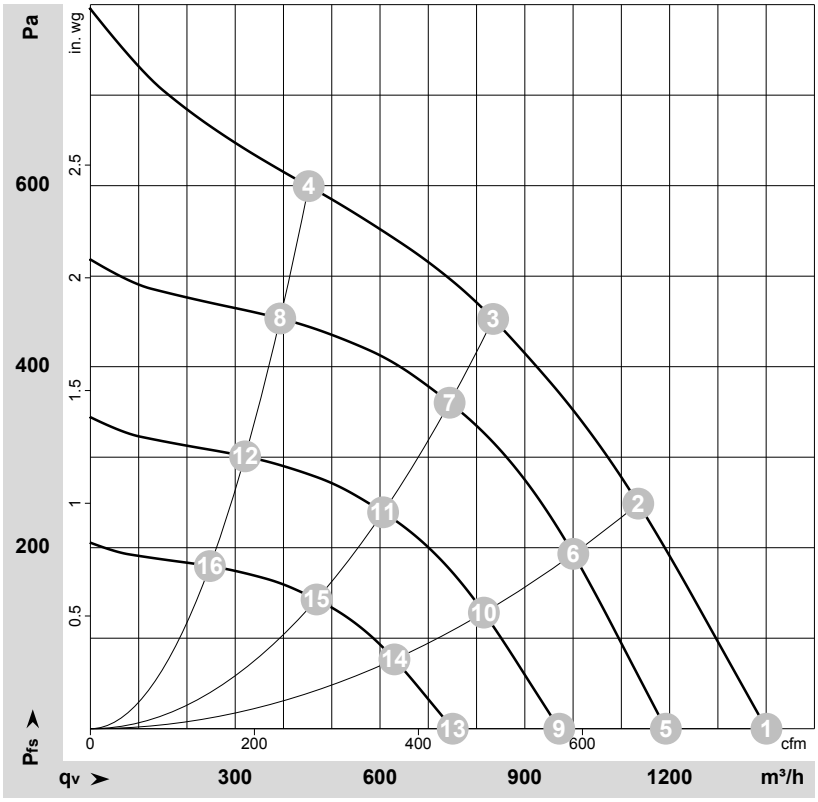
ebm-papst Mulfingen GmbH & Co. KG · Bachmühle 2 · D-74673 Mulfingen · Phone +49 (0) 7938 81-0 · Fax +49 (0) 7938 81-110 · info1@de.ebmpapst.com · www.ebmpapst.com

EC centrifugal module - RadiCal

backward-curved, single-intake

with housing

Curves: Air performance 50 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-185847-1

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	q_V	p_{fs}	q_V	p_{fs}
	V	Hz	min^{-1}	W	A	m^3/h	Pa	cfm	in. wg
1	230	50	3170	166	1.59	1400	0	825	0.00
2	230	50	3065	197	1.86	1135	250	670	1.00
3	230	50	3030	210	2.00	835	450	490	1.81
4	230	50	3105	182	1.74	450	600	265	2.41
5	230	50	2700	103	0.98	1190	0	700	0.00
6	230	50	2700	135	1.27	1000	193	590	0.77
7	230	50	2700	149	1.40	745	360	440	1.45
8	230	50	2700	120	1.14	395	453	230	1.82
9	230	50	2200	56	0.53	970	0	570	0.00
10	230	50	2200	73	0.69	815	128	480	0.51
11	230	50	2200	81	0.76	605	239	355	0.96
12	230	50	2200	65	0.62	320	301	190	1.21
13	230	50	1700	26	0.25	750	0	440	0.00
14	230	50	1700	34	0.32	630	77	370	0.31
15	230	50	1700	37	0.35	470	143	275	0.57
16	230	50	1700	30	0.28	250	180	145	0.72

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

ebm-papst Mulfingen GmbH & Co. KG · Bachmühle 2 · D-74673 Mulfingen · Phone +49 (0) 7938 81-0 · Fax +49 (0) 7938 81-110 · info1@de.ebmpapst.com · www.ebmpapst.com