EC centrifugal module - RadiCal

backward curved, single inlet

with housing

K3G175-RG19-11 ebmpapst Datasheet
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Nominal data

Type	**K3G175-RG19-11**
Motor	**M3G055-CF**

Phase		1~
Nominal voltage	VAC	230
Nominal voltage range	VAC	200 .. 240
Frequency	Hz	50/60
Type of data definition		ml
Speed (rpm)	min^{-1}	3900
Power input	W	95
Current draw	A	0.8
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	60

ml = Max. load · me = Max. efficiency · fa = Running at free air · cs = Customer specs · cu = Customer unit
Subject to alterations

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Technical features

Mass	1.4 kg
Size	175 mm
Surface of rotor	Thick layer passivated
Material of impeller	PA plastic
Housing material	PA plastic
Material of guard grille	PP plastic
Number of blades	7
Direction of rotation	Clockwise, seen on rotor
Type of protection	IP54
Insulation class	"B"
Humidity (F)/environmental protection class (H)	F3-1
Max. permissible ambient motor temp. (transp./ storage)	+ 80 °C
Min. permissible ambient motor temp. (transp./storage)	- 40 °C
Mounting position	Any
Condensate discharge holes	None, open rotor
Operation mode	S1
Motor bearing	Ball bearing
Technical features	- Output 10 VDC, max. 10 mA - Tach output - Output limit - Motor current limit - Soft start - Control input 0-10 VDC / PWM - Control interface with SELV potential safely disconnected from the mains - Overvoltage detection - Over-temperature protected electronics / motor - Line undervoltage detection
Touch current acc. IEC 60990 (measuring network Fig. 4, TN system)	<= 3.5 mA
Motor protection	Locked-rotor protection
Cable exit	Variable
Protection class	I (if protective earth is connected by customer)
Product conforming to standard	EN 60335-1; CE
Approval	CSA C22.2 No.77; UL 1004-7 + 60730

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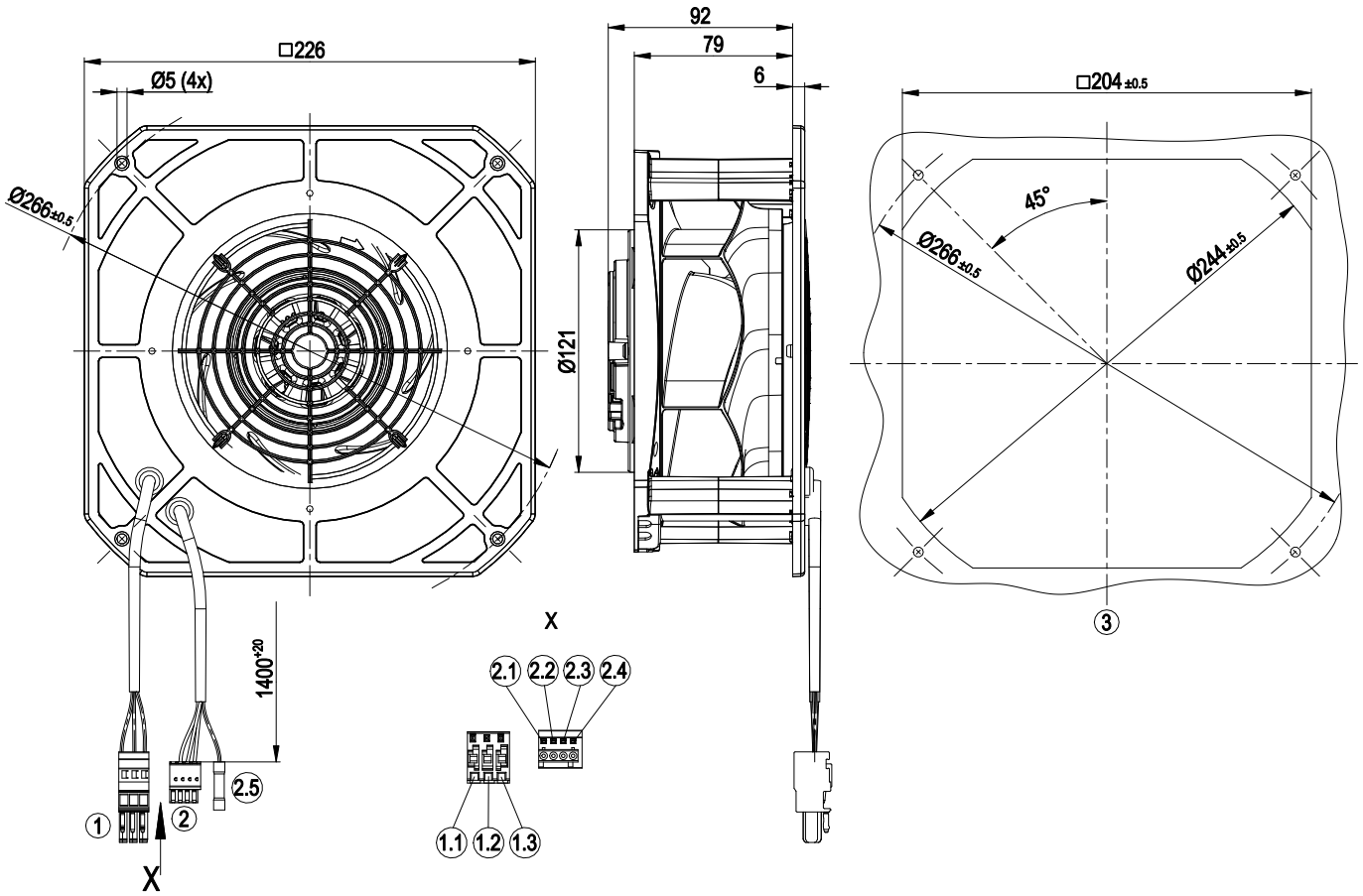
Product drawing



1	Connection line PVC 3G 0.5 mm², 3-pole connector housing WAGO 769-103
1.1	PE (green/yellow)
1.2	N (blue)
1.3	L (brown)
2	Connection line PVC 4x 0.25 mm², 4-pole connector housing WAGO 2734-104
2.1	not used
2.2	GND (blue)
2.3	Tach (white)
2.4	0-10 V PWM (yellow)
2.5	+10 V (red), butt connector
3	Mounting dimensions

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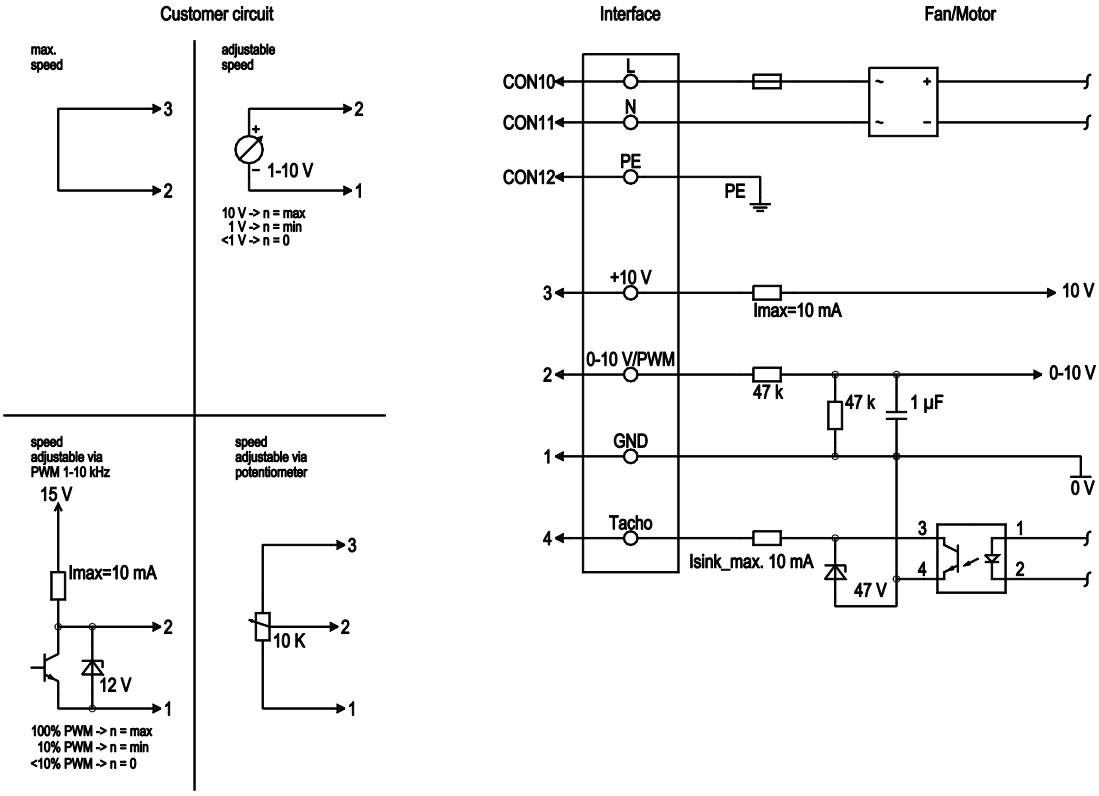
Connection screen



No.	Conn.	Designation	Colour	Function / assignment
	CON10	L	brown	Mains connection, power supply, phase, see type plate for voltage range
	CON11	N	blue	Mains connection, power supply, neutral conductor, see type plate for voltage range
	CON12	PE	green/yellow	Earth connection
	2	0- 10V PWM	yellow	0-10 V/PWM control input, Ri=100 kΩ, SELV
	4	Tach	white	Speed monitoring 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. potentiometer), SELV
	1	GND	blue	Signal ground for control interface, SELV

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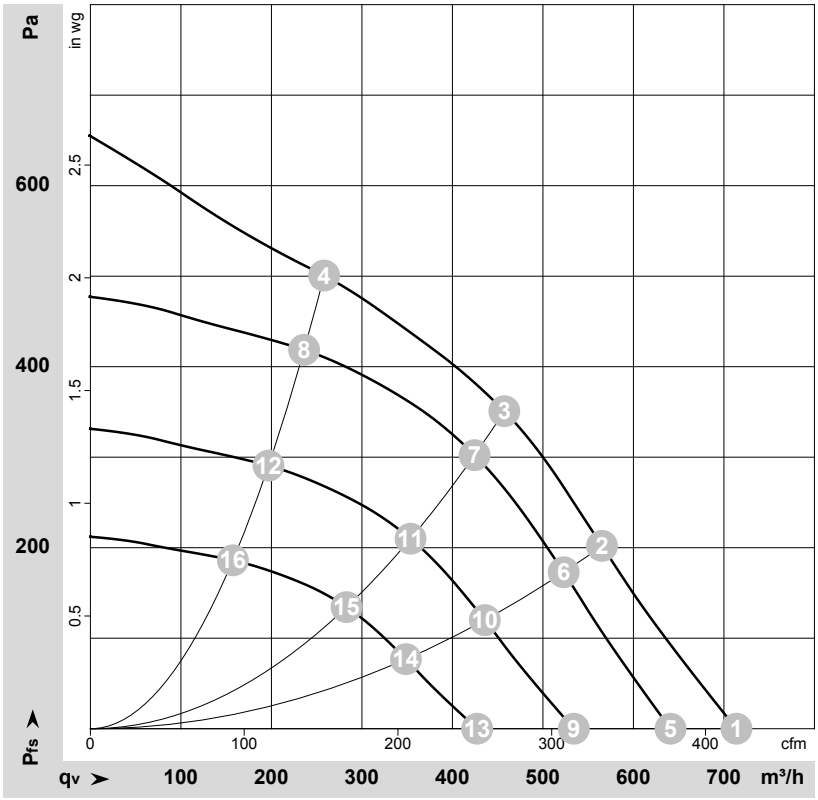
Charts: Air flow 50 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-176512-1

Air performance measured as per ISO 5801 Installation category A. For detailed information on the measuring set-up, please contact ebm-papst. Suction-side noise levels: LwA measured as per ISO 13347 / LpA measured with 1m distance to fan axis. The values given are valid under the measuring conditions mentioned above and may vary according to the actual installation situation. With any deviation from the standard set-up, the specific values have to be checked and reviewed with the unit installed.

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	inH2O
1	230	50	4010	84	0.73	715	0	420	0.00
2	230	50	3905	95	0.80	565	200	335	0.80
3	230	50	3900	95	0.80	455	350	270	1.41
4	230	50	3935	90	0.78	260	500	150	2.01
5	230	50	3600	61	0.53	640	0	375	0.00
6	230	50	3600	75	0.65	525	174	310	0.70
7	230	50	3600	76	0.65	425	302	250	1.21
8	230	50	3600	69	0.60	235	419	140	1.68
9	230	50	3000	35	0.31	535	0	315	0.00
10	230	50	3000	43	0.37	435	121	255	0.49
11	230	50	3000	44	0.38	355	210	210	0.84
12	230	50	3000	40	0.34	195	291	115	1.17
13	230	50	2400	18	0.16	425	0	250	0.00
14	230	50	2400	22	0.19	350	77	205	0.31
15	230	50	2400	22	0.19	285	134	165	0.54
16	230	50	2400	20	0.18	155	186	90	0.75

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