K1G190-RF04-01

EC centrifugal module

backward-curved, single-intake

with housing

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Nominal data

Type	**K1G190-RF04-01**
Motor	**M1G055-CF**

Phase		1~
Nominal voltage	VAC	230
Nominal voltage range	VAC	200 .. 240
Frequency	Hz	50/60
Method of obtaining data		me
Speed (rpm)	min^{-1}	3550
Power consumption	W	100
Current draw	A	0.85
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

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Technical description

Weight	1.8 kg
Size	190 mm
Motor size	55
Rotor surface	Thick-film passivated
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	- Tach output - Power limiter - Motor current limitation - Soft start - PWM control input - Control interface with SELV potential safely disconnected from the mains - Thermal overload protection for motor
EMC immunity to interference	According to EN 61000-6-2 (industrial environment)
EMC circuit feedback	According to EN 61000-3-2/3
EMC interference emission	According to EN 61000-6-3 (household environment)
Touch current according to IEC 60990 (measuring circuit Fig. 4, TN system)	<= 0.25 mA
Motor protection	Thermal overload protector (TOP) internally connected
With cable	Variable
Protection class	I (with customer connection of protective earth)
Conformity with standards	EN 60335-1; CE

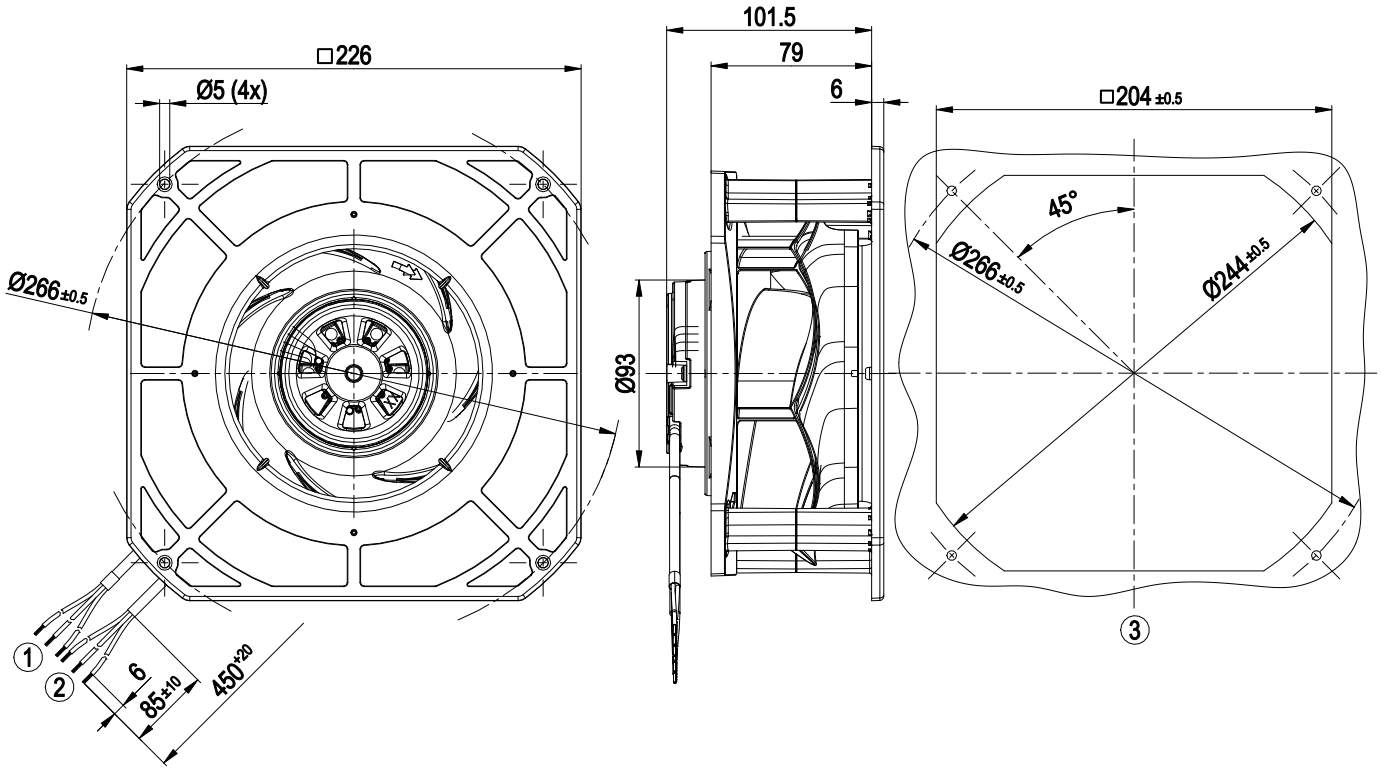
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Product drawing



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

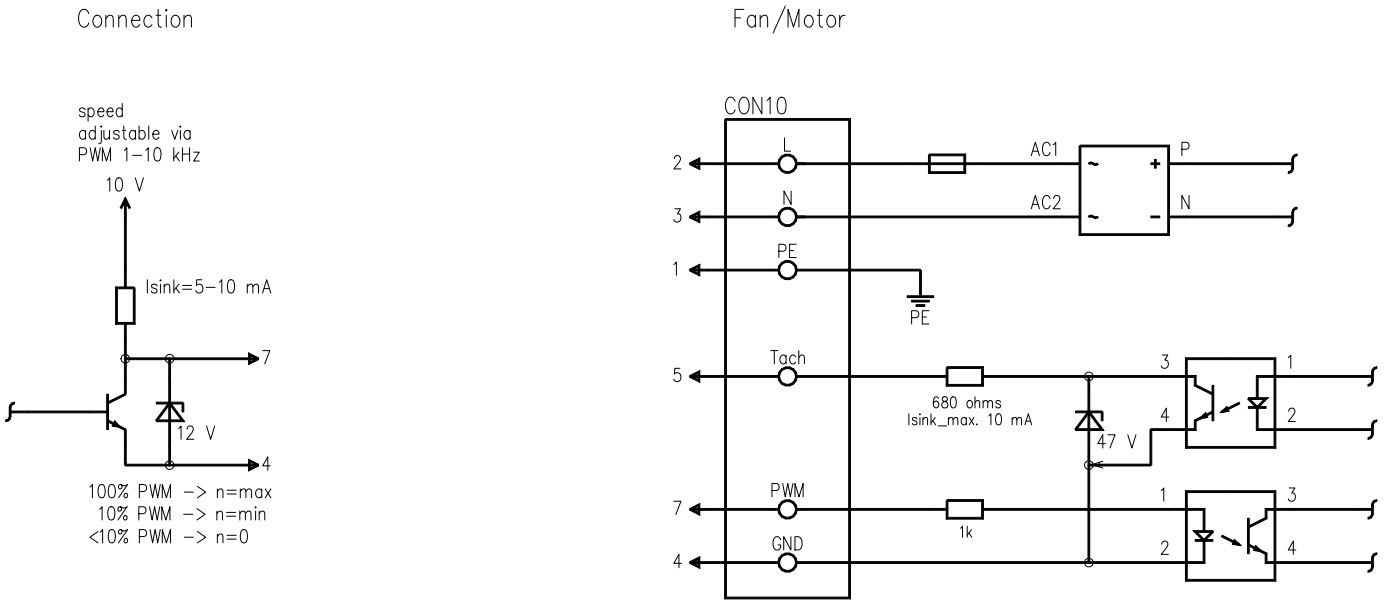
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Connection diagram



No.	Conn.	Designation	Color	Function/assignment
2	L		black	Power supply, phase, see nameplate for voltage range
3	N		blue	Power supply, neutral conductor, see nameplate for voltage range
1	PE		green/yellow	Protective earth
7	PWM		yellow	Control input PWM, impedance 1 kΩ; SELV
5	Tacho		white	Tach output, open collector, 1 pulse per revolution, Isink max = 10 mA, SELV
4	GND		blue	Reference ground for control interface, SELV

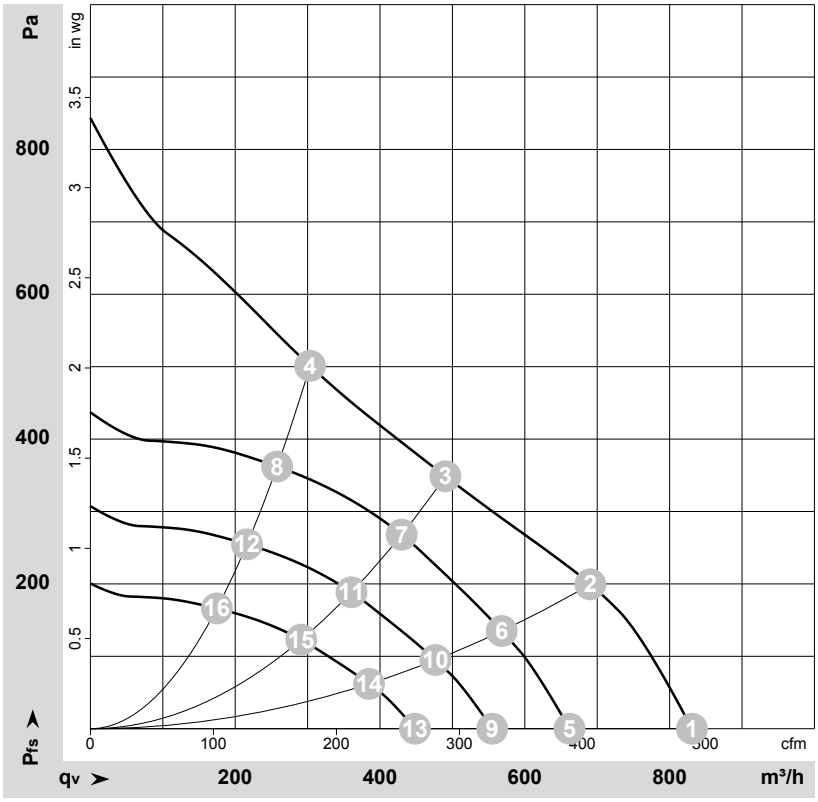
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Curves: Air performance 50 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-184764-1

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	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	230	50	3890	100	0.85	69	77	830	0	490	0.00
2	230	50	3770	100	0.85	65	72	690	200	405	0.80
3	230	50	3550	100	0.85	62	69	490	350	290	1.41
4	230	50	3645	100	0.85	65	72	305	500	180	2.01
5	230	50	3100	53	0.44			660	0	390	0.00
6	230	50	3100	59	0.49			570	135	335	0.54
7	230	50	3100	71	0.59			430	270	255	1.08
8	230	50	3100	65	0.54			260	362	150	1.45
9	230	50	2600	31	0.26			555	0	325	0.00
10	230	50	2600	35	0.29			475	95	280	0.38
11	230	50	2600	42	0.35			360	190	210	0.76
12	230	50	2600	38	0.32			215	255	125	1.02
13	230	50	2100	17	0.14			450	0	265	0.00
14	230	50	2100	18	0.15			385	62	225	0.25
15	230	50	2100	22	0.18			290	124	170	0.50
16	230	50	2100	20	0.17			175	166	105	0.67

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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