

K3G190-RC05-20 ebmpapst Datasheet FansCo

sales@fansco.com

www.fansco.com

Nominal data

Type	K3G190-RC05-20	
Motor	M3G055-BI	
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	3200
Power consumption	W	83
Current draw	A	0.75
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	60

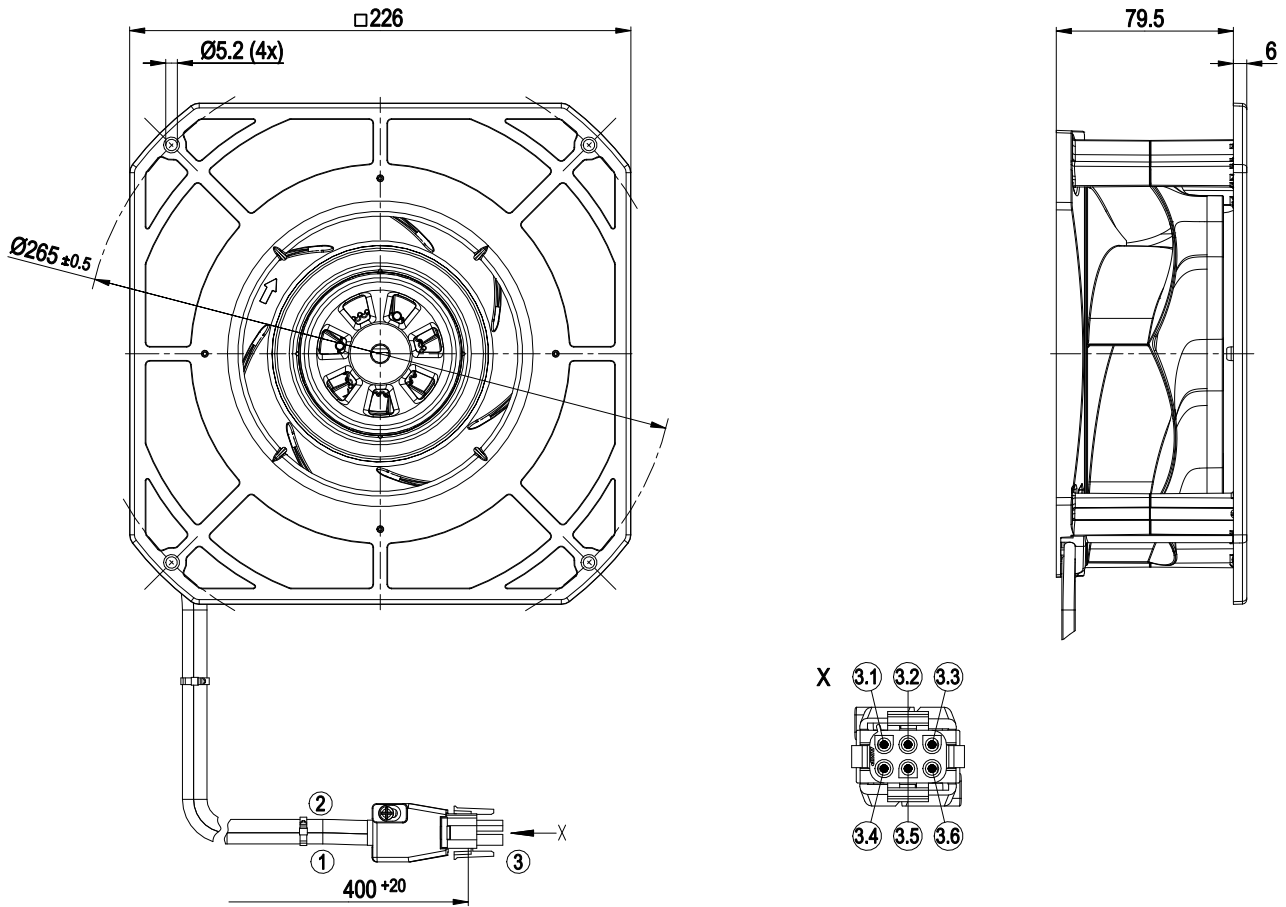
ml = Max. load · me = Max. efficiency · fa = Free air · cs = Customer specification · ce = Customer equipment
Subject to change



Technical description

Weight	1.5 kg
Size	190 mm
Motor size	55
Rotor surface	Thick-film passivated
Impeller material	PP 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; (sealed, without air gap)
Technical features	<ul style="list-style-type: none"> - Tach output - 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
Touch current according to IEC 60990 (measuring circuit Fig. 4, TN system)	<= 3.5 mA
Electrical hookup	Connector with cable
Motor protection	Electronic motor protection
With cable	Variable
Protection class assignment	<p>I; If a protective earth is connected by the customer</p> <p>This component for installation may have several local protection classes. This information relates to this component's basic design.</p> <p>The final protection class is based on the component's intended installation and connection.</p>
Conformity with standards	EN 60335-1; EN 60034-1; EN 60204-1; CE
Comment on CE	Ecodesign Directive 2009/125/EC + Fan Directive (EC) No. 327/2011 does not apply, as power consumption <125W.

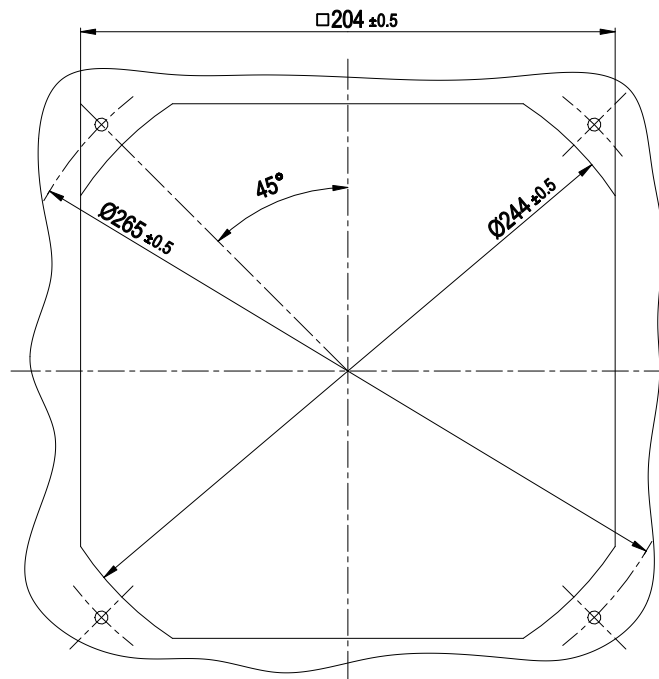
Product drawing



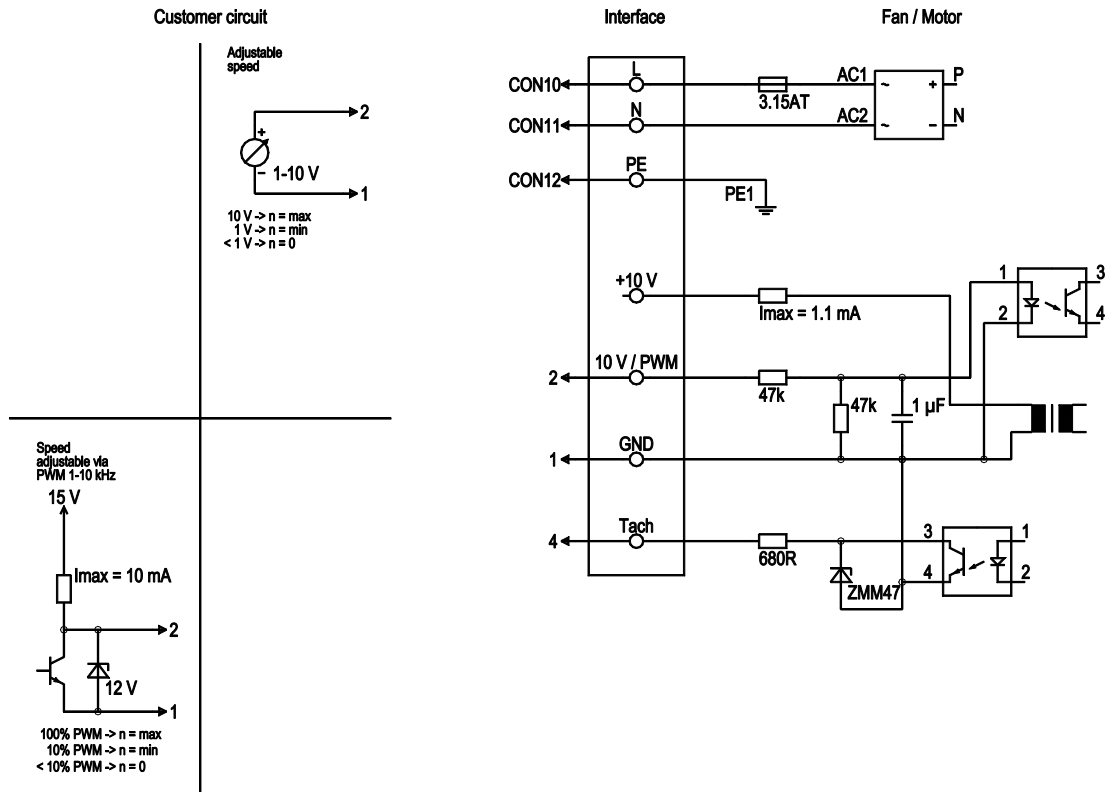
1	Cable PVC AWG22, 3x crimped plug pin tyco 926885-1
2	Cable PVC AWG20, 2x plug pin tyco 926885-1 crimped, 1x plug pin 350654-1 crimped
3	6-pole connector housing tyco 1586846-1, 2x strain relief tyco 640715-1
3.1	0-10 V PWM (yellow)
3.2	GND (blue)
3.3	Tach (white)
3.4	L (black)
3.5	N (blue)
3.6	PE (green/yellow)



Mounting dimensions

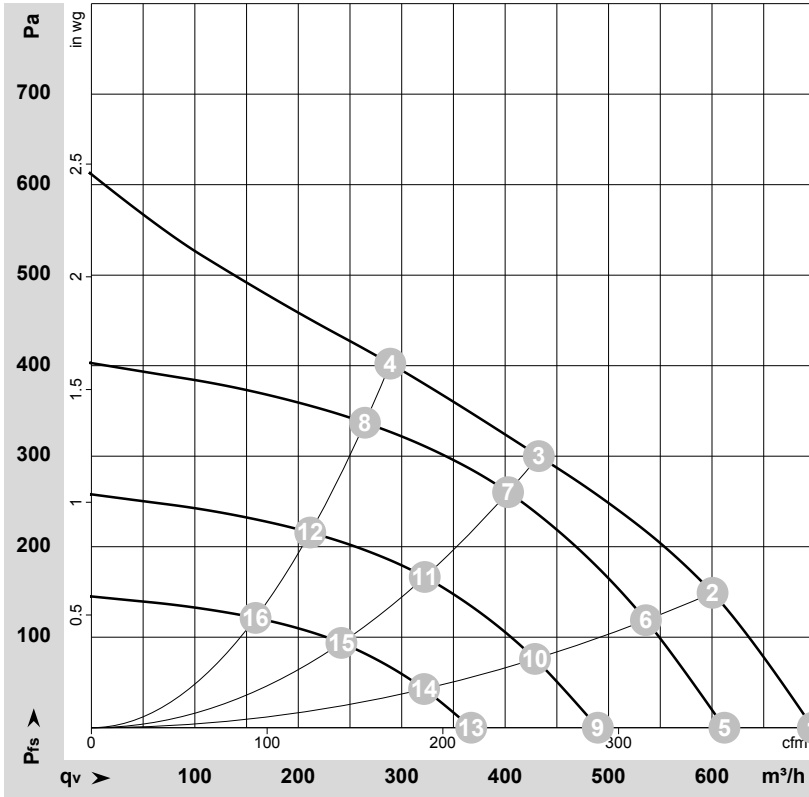


Connection diagram



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
	4	Tacho	white	Tach output: Open collector, 1 pulse per revolution, electrically isolated, I _{sink_max} = 10 mA

Curves: Air performance 50 Hz



$\rho = 1.15 \text{ kg/m}^3 \pm 2 \%$

Measurement: LU-171430-1

Air performance measured according to ISO 5801 installation category A. For detailed information on the measurement setup, contact ebmpapst. 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	3420	75	0.67	66	73	695	0	410	0.00
2	230	50	3360	79	0.70	60	68	600	150	355	0.60
3	230	50	3200	83	0.75	58	66	435	300	255	1.20
4	230	50	3275	83	0.73	60	69	290	400	170	1.61
5	230	50	3000	51	0.45	64	71	610	0	360	0.00
6	230	50	3000	56	0.50	60	68	535	119	315	0.48
7	230	50	3000	69	0.60	57	65	405	261	235	1.05
8	230	50	3000	64	0.56	58	67	265	337	155	1.35
9	230	50	2400	26	0.23	59	65	490	0	290	0.00
10	230	50	2400	29	0.26	54	62	430	76	250	0.31
11	230	50	2400	35	0.31	52	60	320	167	190	0.67
12	230	50	2400	33	0.29	52	61	210	216	125	0.87
13	230	50	1800	11	0.10	51	58	365	0	215	0.00
14	230	50	1800	12	0.11	47	55	320	43	190	0.17
15	230	50	1800	15	0.13	45	53	240	94	140	0.38
16	230	50	1800	14	0.12	45	54	160	121	95	0.49

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

