

SPECIFICATIONS

EC Silent Box Max. m ³ /h	280m ³ /h	500m ³ /h	750m ³ /h	1000m ³ /h	1500m ³ /h	3500m ³ /h	5000m ³ /h VAC 3-380-480	7000m ³ /h	11000m ³ /h
Product code	ART-SB01	ART-SB13	ART-SB02	ART-SB03	ART-SB05	ART-SB07	ART-SB09	ART-SB10	ART-SB11
Fan manufacturer	ebm-papst K3G133- RA01-03	ebm-papst K3G190- RC05-03	ebm-papst K3G190- RC05-03	ebm-papst K3G190- RD45-03	ebm-papst K3G250- RE07-07	ebm-papst K3G280- RR03-H2	ebm-papst K3G310- PT08-J2	ebm-papst K3G310- PH58-02	ebm-papst K3G400- PA27-71
W / A / VAC	27/0.27/ 200-240	83/0.75/ 200-240	83/0.75/ 200-240	169/1.35/ 200-240	170/1.4/ 200-240	500/2.2/ 200-277	1230/1.9/ 380-480	2950/4.6/ 380-480	3350/5.2/ 380-480
Max. Pa	450	820	700	1200	625	950	1200	2125	1600
Connection in mm D	Ø 125	Ø 160	Ø 200	Ø 200	Ø 250	Ø 315	Ø 400	Ø 400	Ø 500
Weight in kg	4.0	5.5	7.2	7.6	12.4	25.7	50.5	50	67
Dimensions in mm									
L1	298	333	368	368	448	478	698	698	748
L2	396	431	466	466	546	576	796	796	846
W	273	323	383	383	505	565	603	603	805
H	273	323	383	383	505	565	603	603	803
Hanging points									
M6, in mm L3	100	135	170	170	270	280	450	450	/
W2	170	235	280	280	380	460	450	450	/
Impeller material	PA plastic	PA plastic	PA plastic	PA plastic	PA plastic	PA plastic	Aluminium	Aluminium	Aluminium
Housing material	Steel	Steel	Steel	Steel	Steel	Steel	Steel	Steel	Steel
ErP directive overall efficiency:									
Actual	ERP-Ready	ERP-Ready	ERP-Ready	56%	57.8%	67.3%	56.8%	66.1%	69.4%
Request 2015				43.1%	43.1%	48.4%	56.8%	56.4%	57%

ENERGY EFFICIENCY

Our motors with modern EC-technology reach excellent efficiencies and save up to 50% energy compared to conventional motor technology.

The slightly higher investment costs compared to conventional motors usually pay for themselves within a very short operating time thanks to lower energy consumption and lower installation costs.

K3G190-RC05-03

EC centrifugal module - RadiCal

backward-curved, single-intake
with housing



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General partner Elektrobau Mulfingen GmbH · Headquarters Mulfingen

Amtsgericht (court of registration) Stuttgart · HRB 590142

Nominal data

Type	K3G190-RC05-03	
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



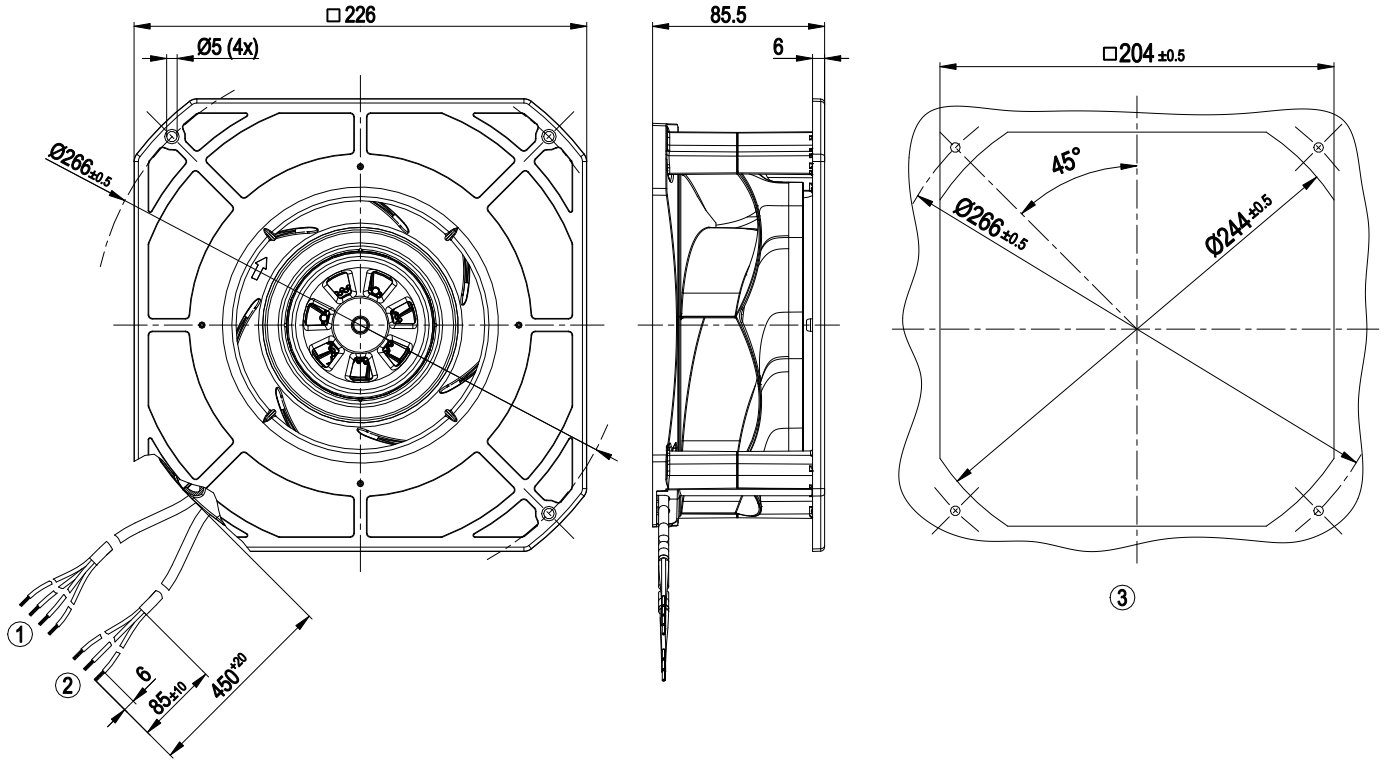
Technical description

Weight	1.5 kg
Fan size	190 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"
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	<ul style="list-style-type: none"> - Output 10 VDC, max. 1.1 mA - 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
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 55022 (class B, household environment), the application may require ferritic damping in the cable due to the conditions of installation.
Touch current according to IEC 60990 (measuring circuit Fig. 4, TN system)	<= 3.5 mA
Motor protection	Locked-rotor protection
With cable	Variable
Protection class	I (with customer connection of protective earth)
Conformity with standards	EN 60335-1; CE
Approval	CCC; UL 2111; CSA C22.2 No. 77; EAC

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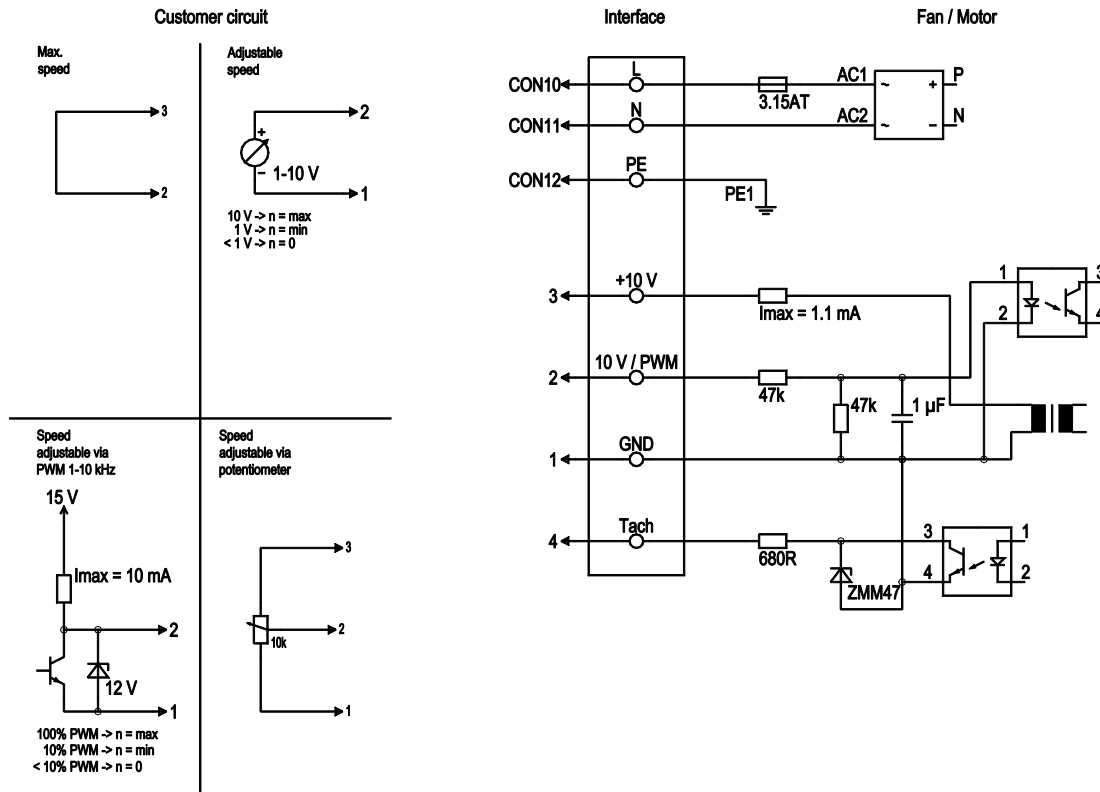
Product drawing



1	Cable PVC AWG22, 4x crimped splices
2	Cable PVC AWG20, 3x crimped splices
3	Mounting dimensions

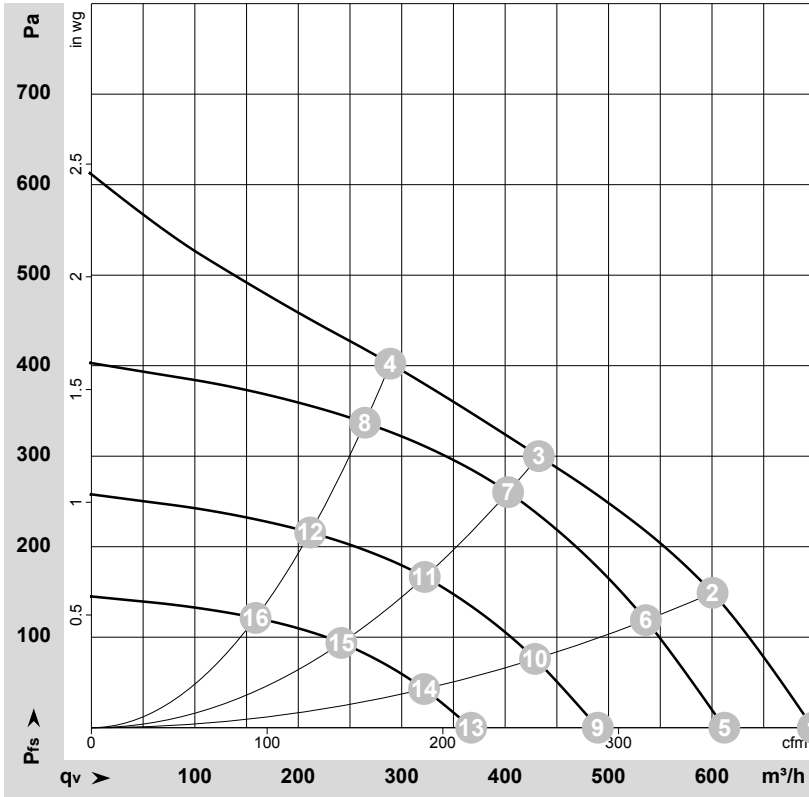


Connection diagram



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
	3	10 V / max. 1,1 mA	red	Voltage output 10 VDC 1.1 mA, electrically isolated, short-circuit-proof
	4	Tacho	white	Tach output: open collector, 1 pulse per revolution, electrically isolated

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	inH ₂ O
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			610	0	360	0.00
6	230	50	3000	56	0.50			535	119	315	0.48
7	230	50	3000	69	0.60			405	261	235	1.05
8	230	50	3000	64	0.56			265	337	155	1.35
9	230	50	2400	26	0.23			490	0	290	0.00
10	230	50	2400	29	0.26			430	76	250	0.31
11	230	50	2400	35	0.31			320	167	190	0.67
12	230	50	2400	33	0.29			210	216	125	0.87
13	230	50	1800	11	0.10			365	0	215	0.00
14	230	50	1800	12	0.11			320	43	190	0.17
15	230	50	1800	15	0.13			240	94	140	0.38
16	230	50	1800	14	0.12			160	121	95	0.49

U = Power supply · 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

