

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.

K3G133-RA01-03

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	K3G133-RA01-03	
Motor	M3G045-AI	
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	3770
Power consumption	W	27
Current draw	A	0.27
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



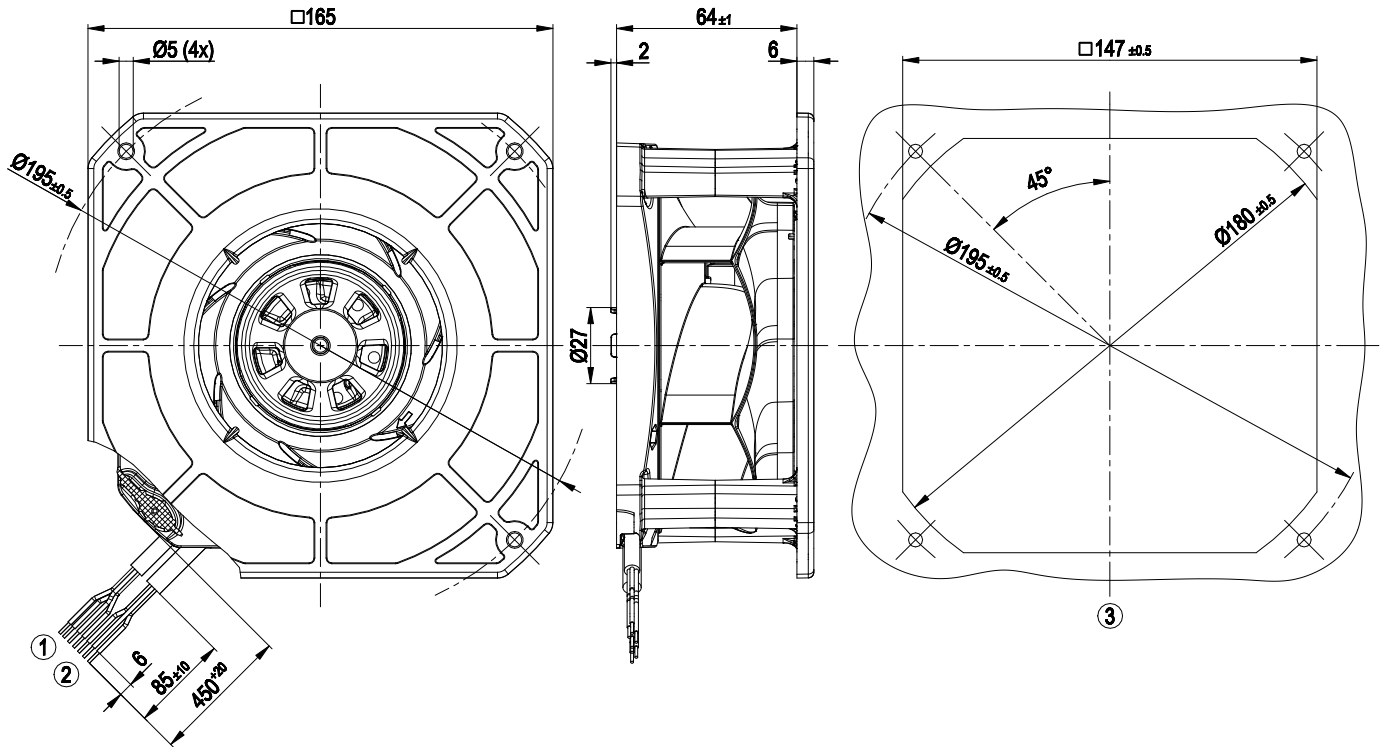
Technical description

Weight	0.9 kg
Fan size	133 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	<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 supply - 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 61000-6-3 (household environment)
Touch current according to IEC 60990 (measuring circuit Fig. 4, TN system)	<= 3.5 mA
Motor protection	Locked-rotor protection
With cable	Lateral
Protection class	I (with customer connection of protective earth)
Conformity with standards	EN 60335-1; CE
Approval	C22.2 No.77 + CAN/CSA-E60730-1; UL 1004-7 + 60730; VDE; EAC; CCC

EC centrifugal module - RadiCal

backward-curved, single-intake
with housing

Product drawing



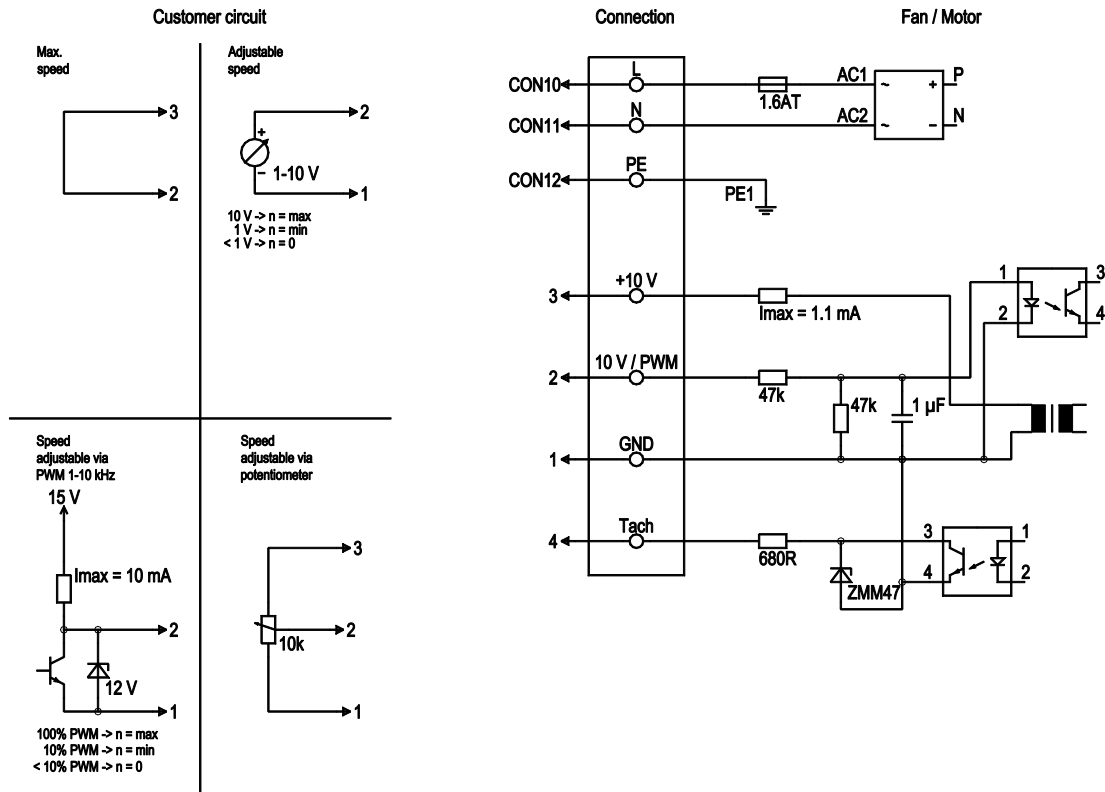
1	Cable PVC 4x AWG22, 4x crimped splices
2	Cable PVC 3G AWG20, 3x crimped splices
3	Mounting dimensions



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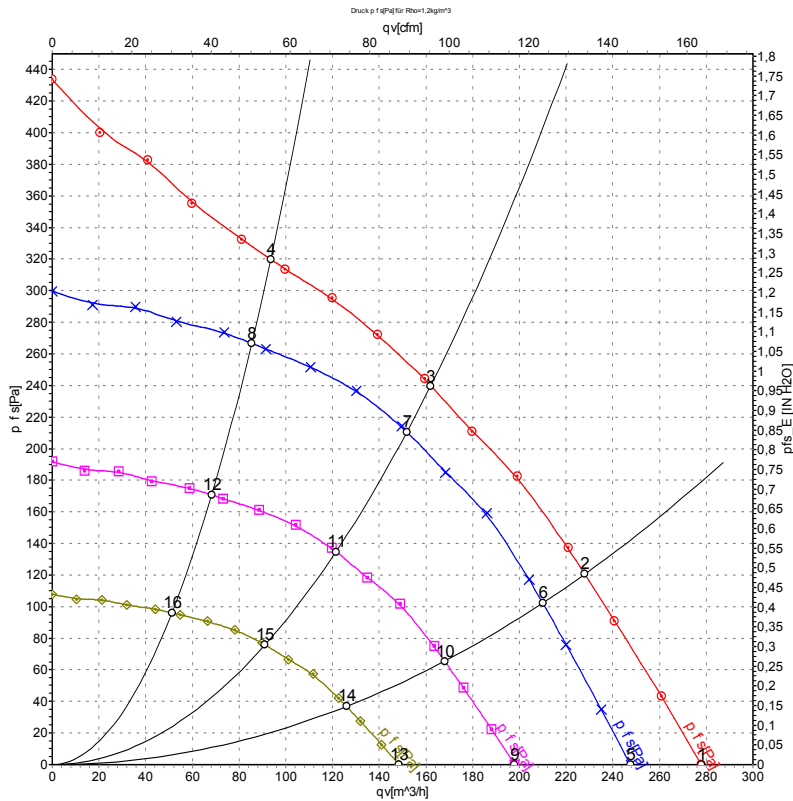
Connection diagram



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	10V/ max 1.1mA	red	Voltage output 10 V / 1.1 mA, electrically isolated, not short-circuit-proof.
	4	Tach	white	Tach output: open collector, 1 pulse per revolution, electrically isolated



Curves: Air performance 50 Hz



Measurement: LU-131806-1

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)	m³/h	Pa	cfm	inH2O
1	230	50	3930	24	0.23	58	66	280	0	165	0.00
2	230	50	3800	26	0.26	54	63	230	120	135	0.48
3	230	50	3770	27	0.27	52	61	160	240	95	0.96
4	230	50	3835	26	0.25	56	65	95	320	55	1.28
5	230	50	3500	17	0.16	55	64	250	0	145	0.00
6	230	50	3500	20	0.20	53	61	210	102	125	0.41
7	230	50	3500	22	0.22	51	59	150	211	90	0.85
8	230	50	3500	19	0.19	54	63	85	267	50	1.07
9	230	50	2800	8.5	0.08	50	59	200	0	115	0.00
10	230	50	2800	10	0.10	48	57	170	66	100	0.26
11	230	50	2800	11	0.11	46	55	120	135	70	0.54
12	230	50	2800	9.9	0.10	49	59	70	171	40	0.69
13	230	50	2100	3.6	0.04	44	53	150	0	85	0.00
14	230	50	2100	4.4	0.04	42	50	125	37	75	0.15
15	230	50	2100	4.8	0.05	39	48	90	76	55	0.31
16	230	50	2100	4.2	0.04	43	52	50	96	30	0.39

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

