S3G450-EL69-11

EC axial fan

sickle-shaped blades (S series)

with support ring

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Nominal data

Type	**S3G450-EL69-11**
Motor	**M3G074-CF**

Phase		1~
Nominal voltage	VAC	230
Frequency	Hz	50/60
Method of obtaining data		me
Speed (rpm)	min^{-1}	830
Power consumption	W	104
Current draw	A	0.9
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	2.4 kg
Fan size	450 mm
Rotor surface	Painted black
Electronics housing material	Die-cast aluminum
Blade material	PA plastic
Support ring material	Steel, coated with black plastic (RAL 9005)
Number of blades	3
Airflow direction	"V"
Direction of rotation	Counterclockwise, viewed toward rotor
Degree of protection	IP44; installation- and position-dependent as per EN 60034-5
Insulation class	"B"
Moisture (F) / Environmental (H) protection class	F3-1
Max. permitted ambient temp. for motor (transport/storage)	+ 80 °C
Min. permitted ambient temp. for motor (transport/storage)	- 40 °C
Installation position	Shaft horizontal or rotor on bottom; rotor on top on request
Condensation drainage holes	On rotor side
Mode	S1
Motor bearing	Ball bearing
Technical features	- Output 10 VDC, max. 1.1 mA - Tach output - Motor current limitation - Soft start - Control input 0-10 VDC / PWM - 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)	<= 3.5 mA
Motor protection	Thermal overload protector (TOP) internally connected
Protection class	I (with customer connection of protective earth)
Conformity with standards	EN 60335-1

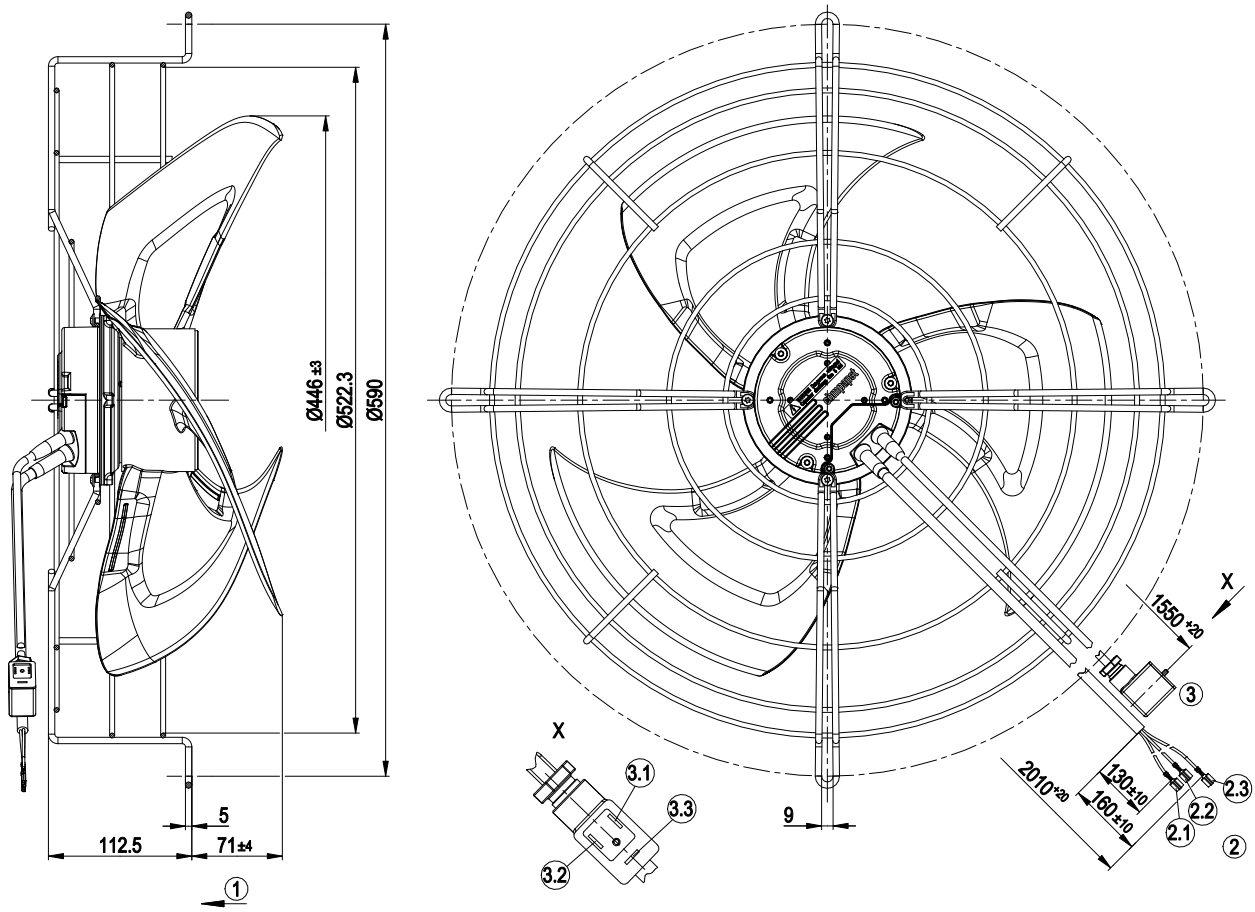
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Product drawing



1	Direction of air flow "V"
2	Cable PVC AWG18, 3x crimped flat push-on receptacle 6.3 x 0.8
2.1	N (blue)
2.2	L (black)
2.3	PE (green/yellow)
3	Cable PVC 3x 0.34 mm² with valve plug connector EN 175301-803 with injection-molded seal
3.1	+10 VDC
3.2	GND
3.3	0-10 V

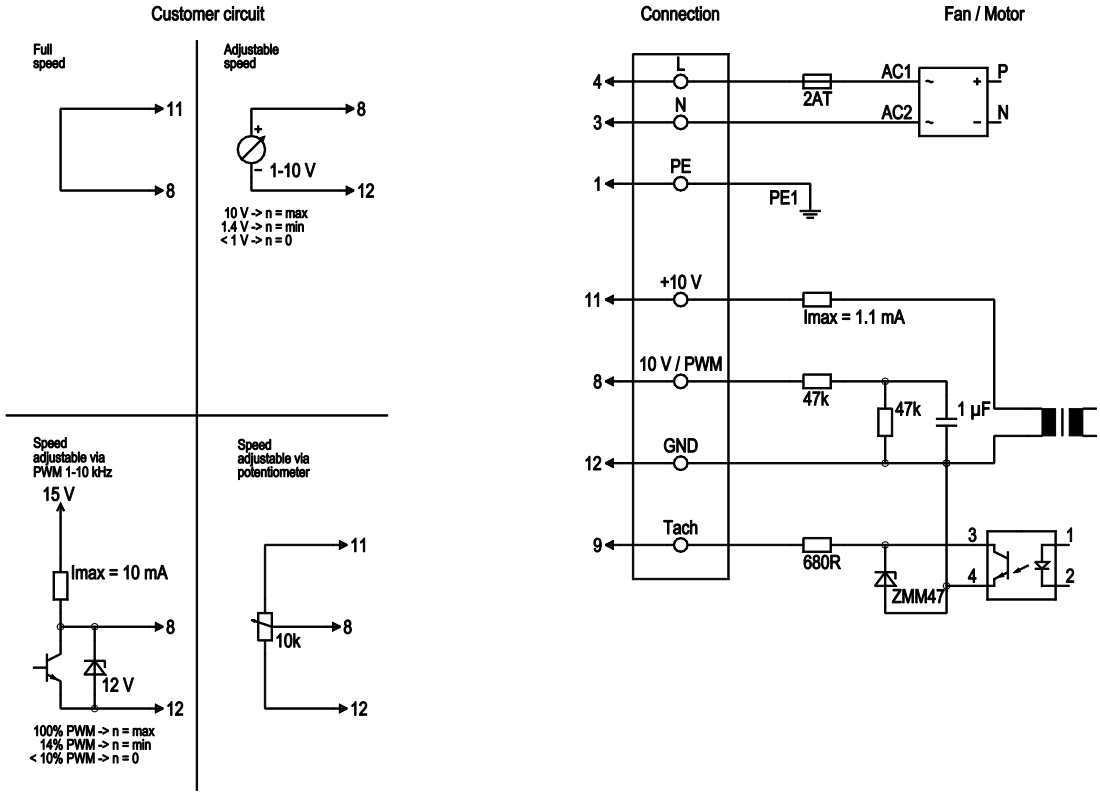
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Connection diagram



No.	Conn.	Designation	Color	Function/assignment
	4	L	black	Power supply 230 VAC, 50-60 Hz, see nameplate for voltage range
	3	N	blue	Neutral conductor
	1	PE	green/yellow	Protective earth
	8	0-10 V PWM	yellow	Control input 0-10 V or PWM, electrically isolated
	9	Tach	white	Tach output: open collector, 1 pulse per revolution, electrically isolated
	11	10V / max 1.1 mA	red	Voltage output 10 V/max. 1.1 mA, electrically isolated
	12	GND	blue	GND connection for control interface

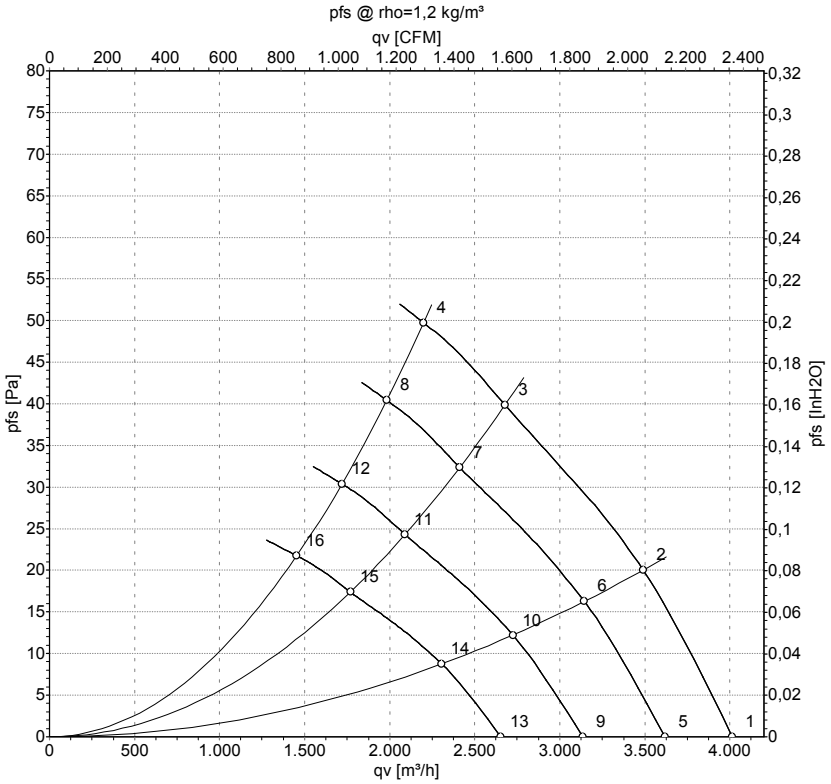
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Curves: Air performance 50 Hz



Measurement: LU-148179-1

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	qv	p_{fs}	qv	p_{fs}
	V	Hz	min^{-1}	W	A	m^3/h	Pa	CFM	inH2O
1	230	50	830	80	0.68	4015	0	2365	0.00
2	230	50	830	90	0.77	3490	20	2055	0.08
3	230	50	830	100	0.86	2680	40	1575	0.16
4	230	50	830	104	0.90	2200	50	1295	0.20
5	230	50	750	58	0.50	3620	0	2130	0.00
6	230	50	750	66	0.57	3145	16	1850	0.06
7	230	50	750	73	0.63	2410	32	1420	0.13
8	230	50	750	76	0.64	1985	40	1165	0.16
9	230	50	650	38	0.33	3135	0	1845	0.00
10	230	50	650	43	0.37	2725	12	1605	0.05
11	230	50	650	47	0.41	2090	24	1230	0.10
12	230	50	650	49	0.41	1720	30	1010	0.12
13	230	50	550	23	0.20	2655	0	1560	0.00
14	230	50	550	26	0.22	2305	9	1355	0.04
15	230	50	550	29	0.25	1770	17	1040	0.07
16	230	50	550	30	0.25	1455	22	855	0.09

U = Power supply · f = Frequency · n = Speed (rpm) · P_{ed} = Power consumption · I = Current draw · qv = Air flow · p_{fs} = Pressure increase

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