S3G450-AM04-52

EC axial fan

sickle-shaped blades (S series)

with guard grille for short nozzle

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Nominal data

Type	**S3G450-AM04-52**
Motor	**M3G074-CF**

Phase		1~
Nominal voltage	VAC	230
Nominal voltage range	VAC	200 .. 240
Frequency	Hz	50/60
Method of obtaining data		ml
Speed	min^{-1}	870
Power consumption	W	122
Current draw	A	1.0
Max. back pressure	Pa	57
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	4.7 kg
Fan size	450 mm
Rotor surface	Thick-film passivated
Blade material	PP plastic
Guard grille material	Steel, coated with black plastic (RAL 9005)
Airflow direction	"V"
Direction of rotation	Counterclockwise, viewed toward rotor
Degree of protection	IP54
Insulation class	"B"
Moisture (F) / Environmental (H) protection class	F3-1
Max. permitted ambient temp. for motor (transport/storage)	+ 80 °C
Installation position	Any
Condensation drainage holes	None, open rotor
Cooling hole/opening	On rotor side
Mode	S1
Motor bearing	Ball bearing
Technical features	- 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 - Thermal overload protection for electronics/motor
Touch current according to IEC 60990 (measuring circuit Fig. 4, TN system)	<= 3.5 mA
Electrical hookup	Via terminal box
Motor protection	PTC thermistor
With cable	Variable
Protection class	I (with customer connection of protective earth)
Conformity with standards	EN 60335-1; CE

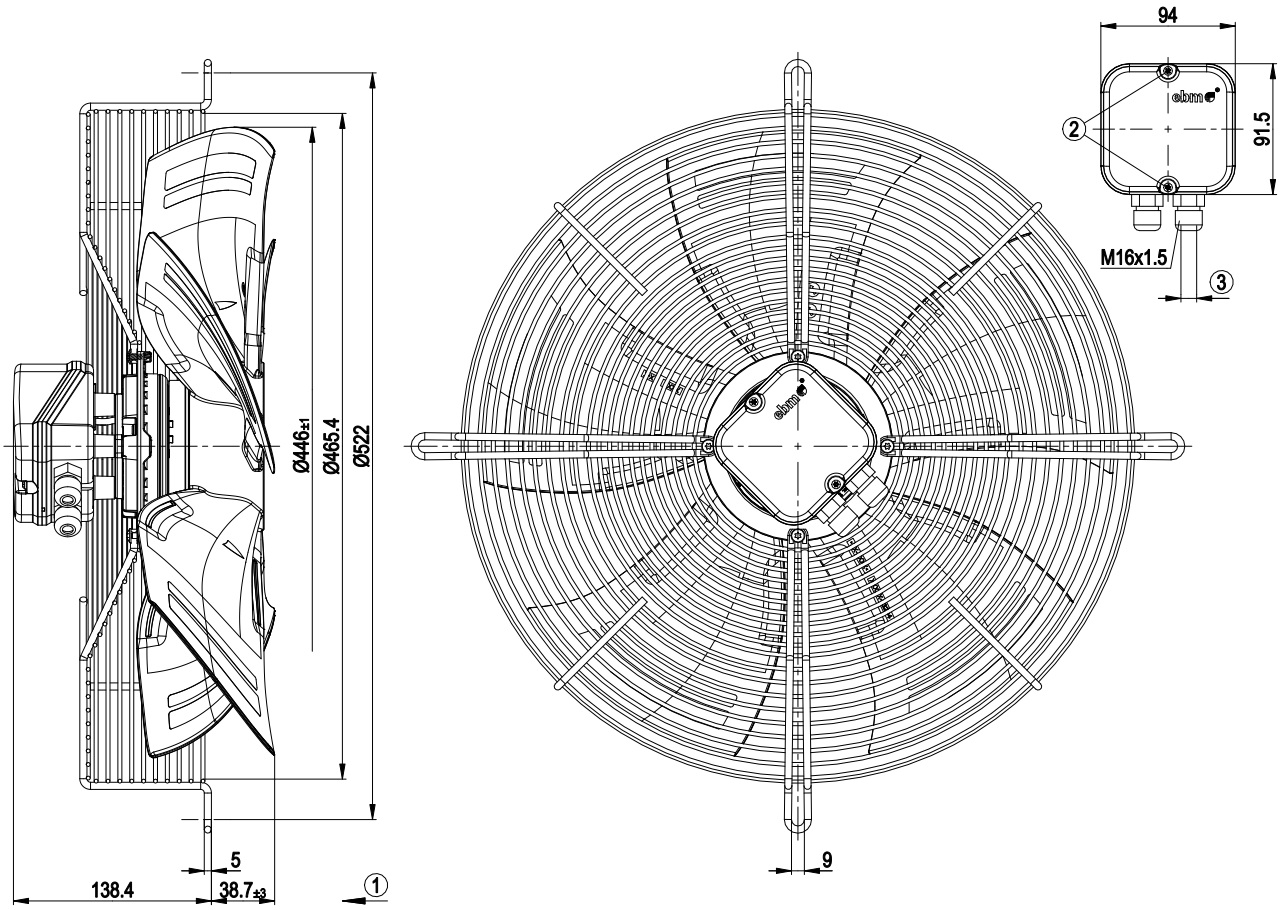
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Product drawing



1	Direction of air flow "V"
2	Tightening torque 0.5 ± 0.1 Nm
3	Cable diameter max. 7.5 mm, tightening torque 1.3 ± 0.2 Nm

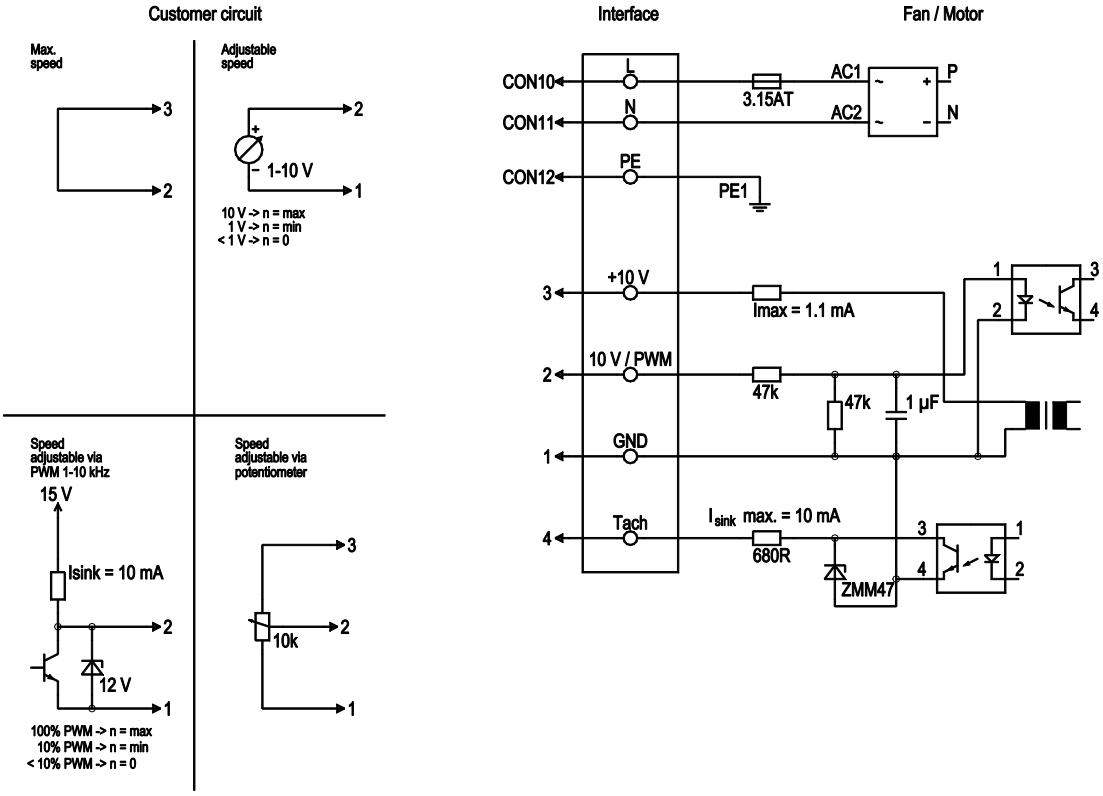
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Connection diagram



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, Isink = 10 mA
	4	Tach	white	Tach output: Open collector, 1 pulse per revolution, electrically isolated, Isink max = 10 mA

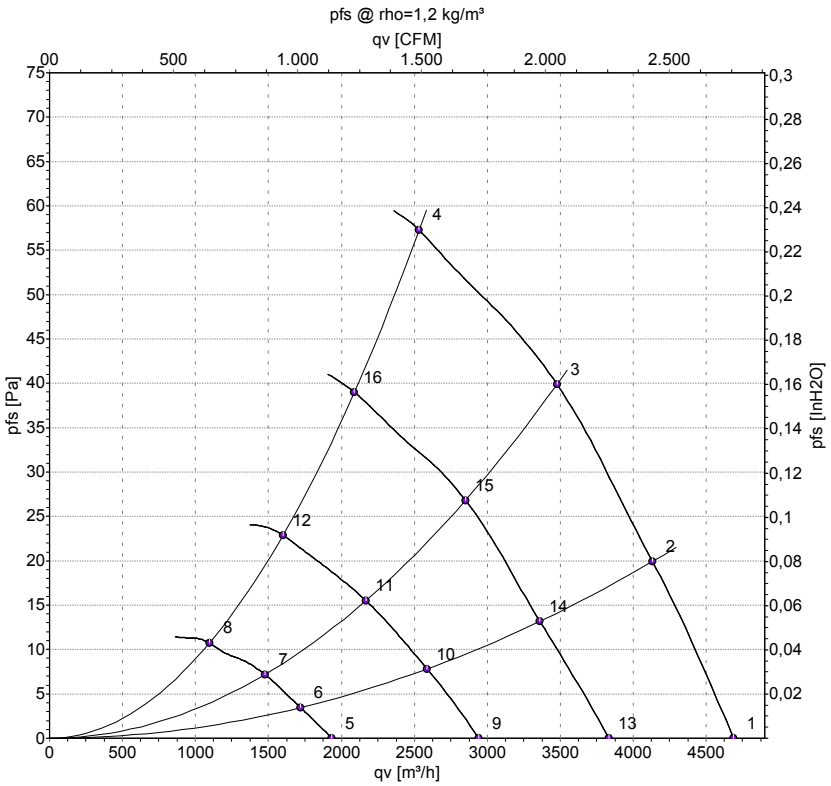
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Curves: Air performance 50 Hz



Measurement: LU-158669
Measurement: LU-138633
Measurement: LU-138626
Measurement: LU-138619

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}
	V	Hz	min^{-1}	W	A	m^3/h	Pa
1	230	50	930	101	0.85	4685	0
2	230	50	910	109	0.91	4130	20
3	230	50	895	114	0.96	3475	40
4	230	50	870	122	1.00	2530	57
5	230	50	395	10.0	0.11	1935	0
6	230	50	390	11	0.12	1720	3
7	230	50	385	12	0.12	1475	7
8	230	50	380	12	0.12	1095	11
9	230	50	580	27	0.26	2940	0
10	230	50	575	29	0.29	2585	8
11	230	50	565	32	0.30	2170	16
12	230	50	555	33	0.31	1600	23
13	230	50	760	56	0.50	3835	0
14	230	50	745	61	0.55	3360	13
15	230	50	735	64	0.58	2850	27
16	230	50	720	69	0.62	2090	39

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

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