S3G450-AN04-58

EC axial fan

sickle-shaped blades (S series), single-intake

with guard grille for short nozzle

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Nominal data

Type	**S3G450-AN04-58**
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 (rpm)	min^{-1}	870
Power consumption	W	122
Current draw	A	1.0
Max. back pressure	Pa	57
Max. back pressure	in. wg	0.23
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	4.6 kg
Size	450 mm
Motor size	74
Rotor surface	Thick-film passivated
Terminal box material	ABS plastic
Blade material	Press-fitted sheet steel blank, sprayed with PP plastic
Guard grille material	Stainless steel
Airflow direction	A
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	IP54
Insulation class	"B"
Moisture (F) / Environmental (H) protection class	F3-1; 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
Cooling hole/opening	On rotor side
Mode	S1
Motor bearing	Ball bearing made of stainless steel
Technical features	- Output 10 VDC, max. 10 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
Touch current according to IEC 60990 (measuring circuit Fig. 4, TN system)	<= 3.5 mA
Electrical hookup	Terminal box
Motor protection	Electronic motor protection
With cable	Variable
Protection class	I (with customer connection of protective earth)
Conformity with standards	EN 60335-1; CE

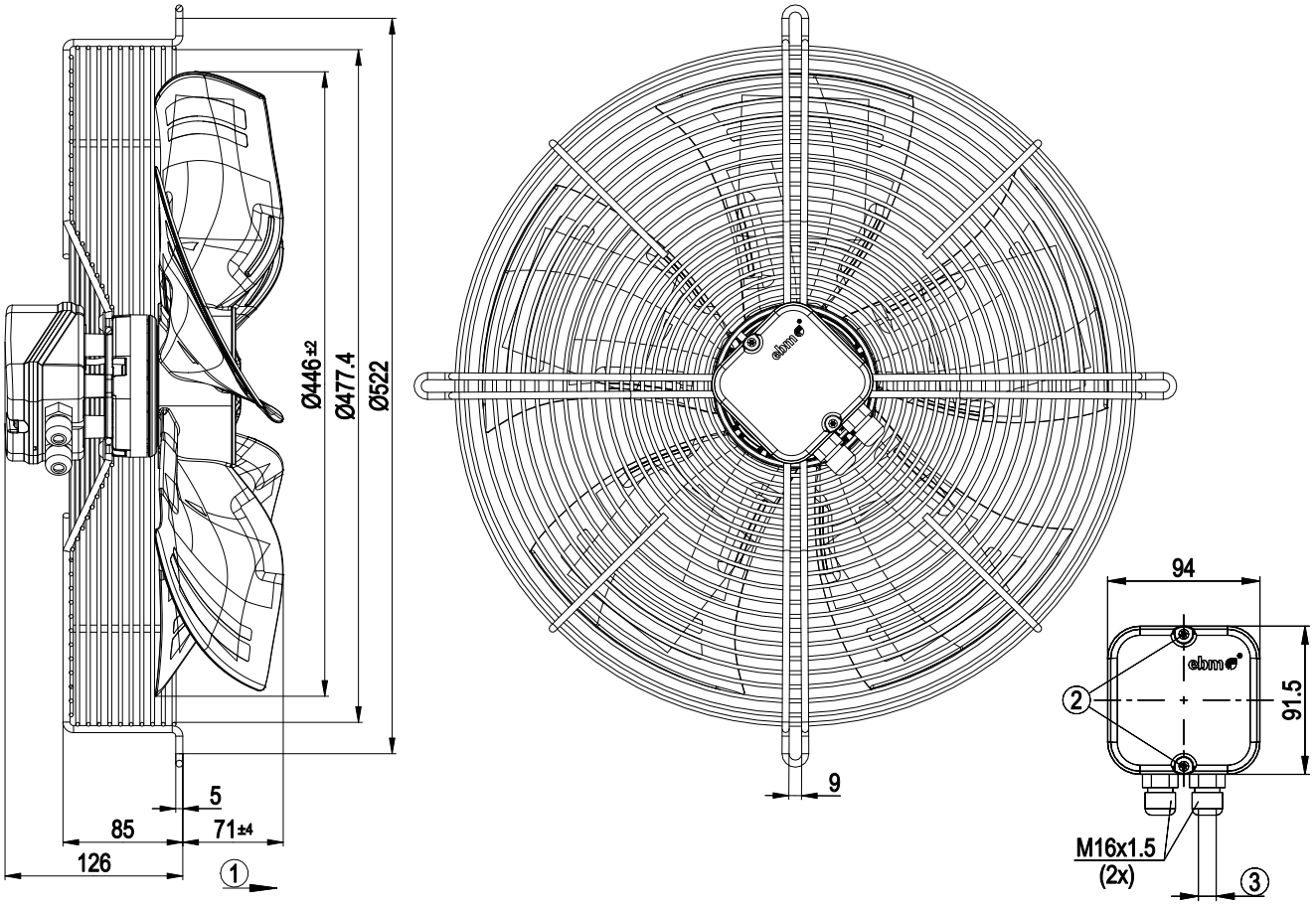
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Product drawing



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

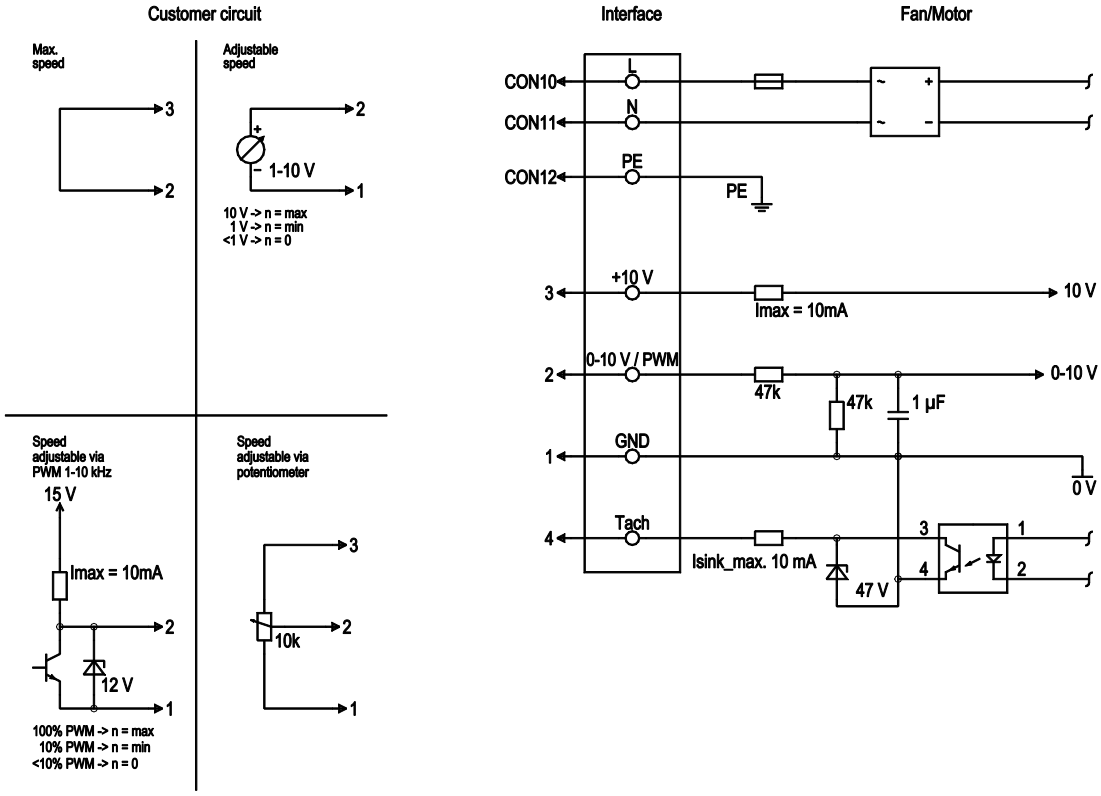
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Connection diagram



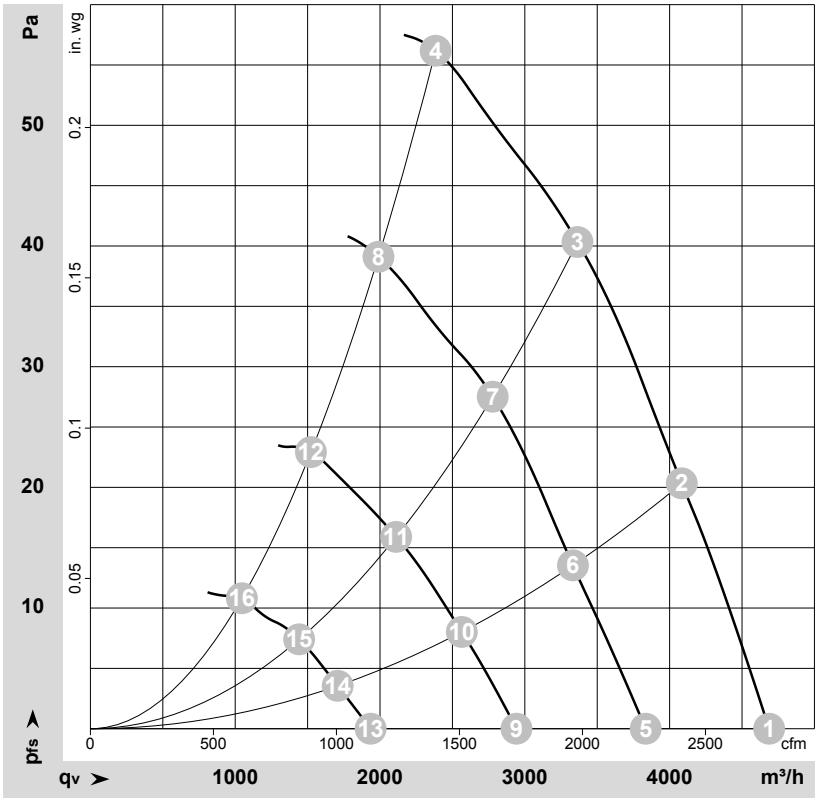
No.	Conn.	Designation	Color	Function/assignment
	CON10	L	black	Supply connection, power supply, phase, see nameplate for voltage range
	CON11	N	blue	Supply connection, power supply, neutral conductor, see nameplate for voltage range
	CON12	PE	green/yellow	Ground connection
	2	0- 10V PWM	yellow	0-10 V / PWM control input, Ri=100 kΩ, SELV
	4	Tach	white	Tach output, open collector, 1 pulse per revolution, Isink max = 10 mA, SELV
	3	+10 V	red	Fixed voltage output 10 VDC +/-3 %, Imax. 10 mA, short-circuit-proof, power supply for ext. devices (e.g. pot), SELV
	1	GND	blue	Reference ground for control interface, SELV

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Curves: Air performance 50 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-158669-1
Measurement: LU-138619-1
Measurement: LU-138626-1
Measurement: LU-138633-1

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

	Wired	U	f	n	P_{ed}	I	q_V	p_{fs}	q_V	p_{fs}
		V	Hz	min^{-1}	W	A	m^3/h	Pa	cfm	in. wg
1	1~	230	50	930	101	0.85	4685	0	2760	0.00
2	1~	230	50	910	109	0.92	4085	20	2405	0.08
3	1~	230	50	890	115	0.96	3365	40	1980	0.16
4	1~	230	50	870	122	1.00	2385	57	1405	0.23
5	1~	230	50	760	56	0.50	3835	0	2255	0.00
6	1~	230	50	745	61	0.55	3330	13	1960	0.05
7	1~	230	50	730	65	0.58	2780	28	1635	0.11
8	1~	230	50	720	69	0.62	1990	39	1170	0.16
9	1~	230	50	580	27	0.26	2940	0	1730	0.00
10	1~	230	50	575	30	0.29	2565	8	1510	0.03
11	1~	230	50	565	32	0.31	2110	16	1245	0.06
12	1~	230	50	555	33	0.31	1525	23	895	0.09
13	1~	230	50	395	10.0	0.11	1935	0	1140	0.00
14	1~	230	50	390	11	0.12	1710	4	1005	0.02
15	1~	230	50	385	12	0.12	1440	7	850	0.03
16	1~	230	50	380	12	0.12	1045	11	615	0.04

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

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