S3G450-AP02-40

EC axial fan

sickled blades (S series)

with guard grille for short nozzle

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Nominal data

Type	**S3G450-AP02-40**
Motor	**M3G074-DF**

Phase		1~
Nominal voltage	VAC	230
Frequency	Hz	50/60
Type of data definition		ml
Speed (rpm)	min^{-1}	900
Power input	W	120
Current draw	A	1.0
Max. back pressure	Pa	60
Max. ambient temperature	°C	60

ml = Max. load · me = Max. efficiency · fa = Running at free air · cs = Customer specs · cu = Customer unit
Subject to alterations

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Technical features

Mass	4.7 kg
Size	450 mm
Surface of rotor	Coated in black
Material of terminal box	PC/ABS plastic, black
Material of blades	PP plastic
Material of guard grille	Steel, coated in black plastic (RAL9005)
Direction of air flow	"V"
Direction of rotation	Counter-clockwise, seen on rotor
Type of protection	IP 54
Insulation class	"B"
Humidity (F)/environmental protection class (H)	F3-1
Max. permissible ambient motor temp. (transp./ storage)	+ 80 °C
Min. permissible ambient motor temp. (transp./storage)	- 40 °C
Mounting position	Shaft horizontal or rotor on bottom
Condensate discharge holes	None, open rotor
Cooling bore / aperture	Rotor-side
Operation mode	S1
Motor bearing	Ball bearings made of stainless steel
Technical features	- Output 10 VDC, max. 10 mA - Tach output - Output limit - Motor current limit - Soft start - Control input 0-10 VDC / PWM - Control interface with SELV potential safely disconnected from the mains - Overvoltage detection - Over-temperature protected electronics / motor - Line undervoltage detection
EMC interference immunity	Acc. to EN 61000-6-2 (industrial environment)
EMC harmonics	Acc. to EN 61000-3-2/3
EMC interference emission	Acc. to EN 61000-6-3 (household environment)
Touch current acc. IEC 60990 (measuring network Fig. 4, TN system)	<= 3.5 mA
Electrical leads	Via terminal box
Motor protection	PTC resistor
Cable exit	Variable
Protection class	I (if protective earth is connected by customer)
Product conforming to standard	EN 60335-1; CE

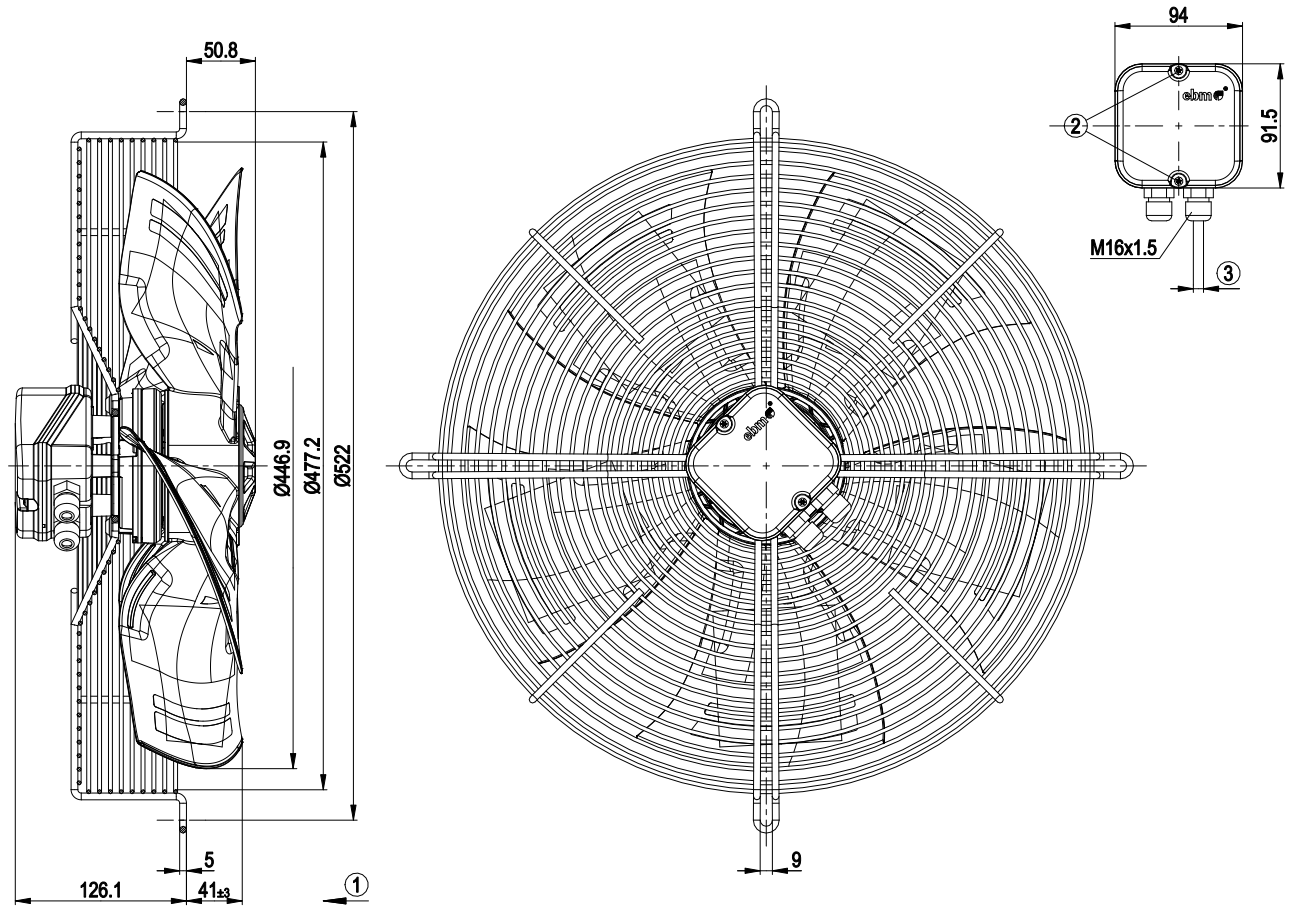
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Product drawing



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

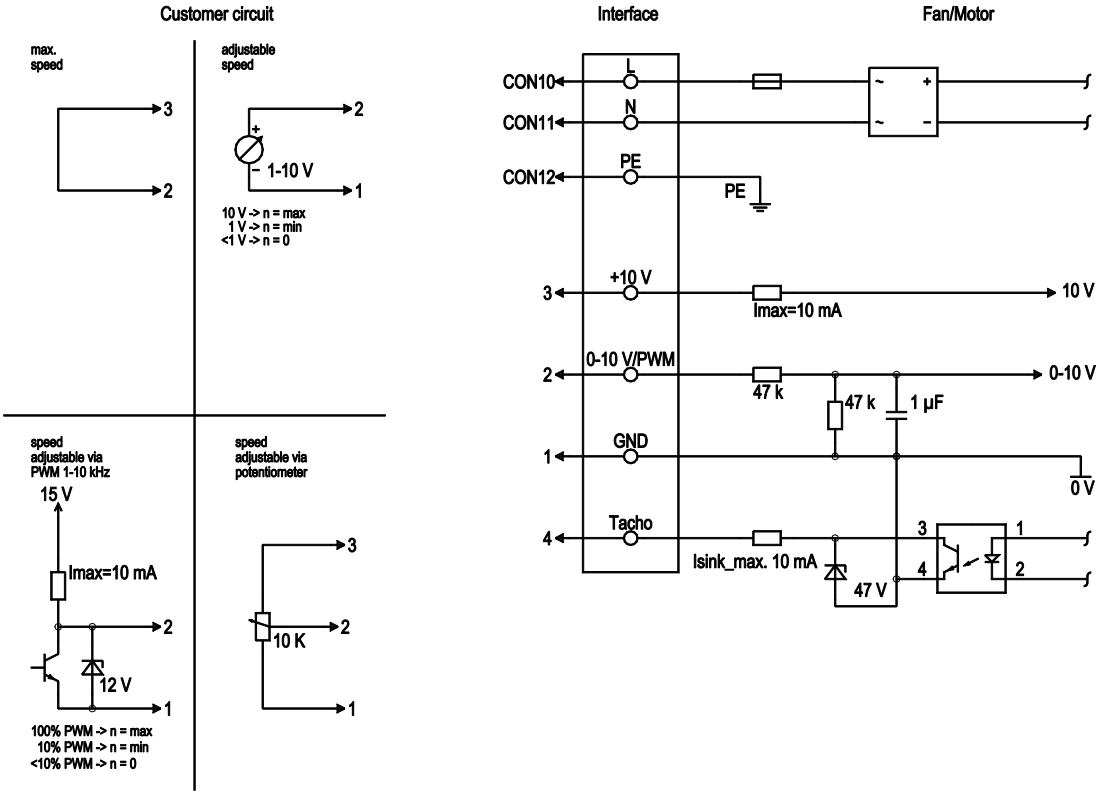
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Connection screen



No.	Conn.	Designation	Colour	Function / assignment
	CON10	L	black	Mains connection, power supply, phase, see type plate for voltage range
	CON11	N	blue	Mains connection, power supply, neutral conductor, see type plate for voltage range
	CON12	PE	green/yellow	Earth connection
	2	0- 10V PWM	yellow	0-10 V/PWM control input, Ri=100 kΩ, SELV
	4	Tach	white	Speed monitoring 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. potentiometer), SELV
	1	GND	blue	Signal ground for control interface, SELV

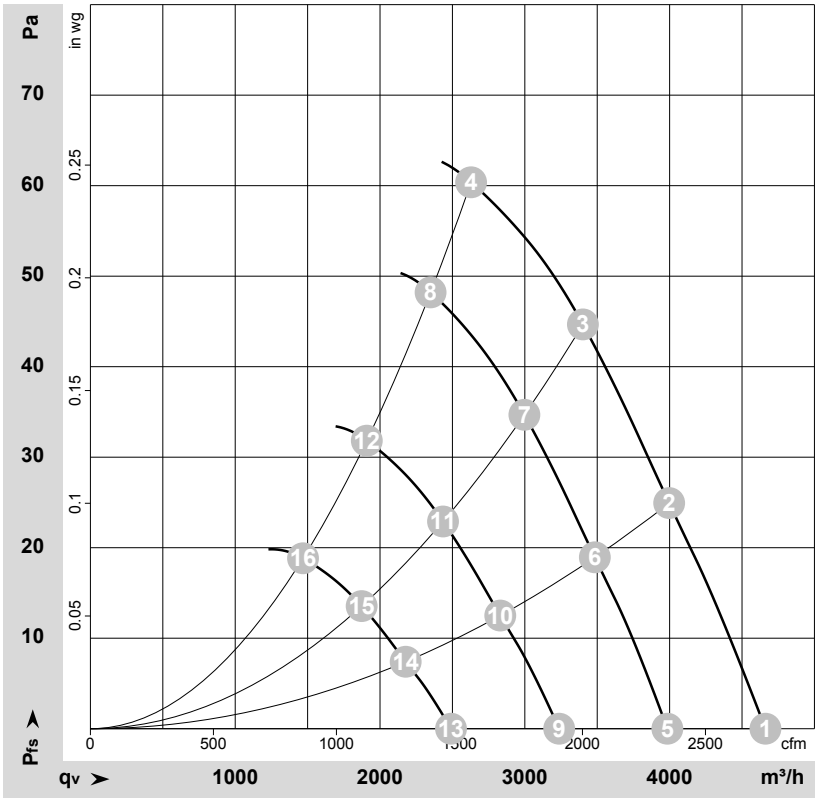
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Charts: Air flow 50 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-177345-1

Air performance measured as per ISO 5801 Installation category A. For detailed information on the measuring set-up, please contact ebm-papst. Suction-side noise levels: LwA measured as per ISO 13347 / LpA measured with 1m distance to fan axis. The values given are valid under the measuring conditions mentioned above and may vary according to the actual installation situation. With any deviation from the standard set-up, the specific values have to be checked and reviewed with the unit installed.

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	inH2O
1	230	50	935	97	0.82	58	64	4660	0	2745	0.00
2	230	50	920	109	0.91	56	62	3995	25	2355	0.10
3	230	50	910	115	0.95	53	59	3400	45	2000	0.18
4	230	50	900	120	1.00	58	65	2630	60	1545	0.24
5	230	50	800	61	0.51	54	60	3985	0	2345	0.00
6	230	50	800	72	0.60	52	58	3485	19	2050	0.08
7	230	50	800	78	0.65	49	56	2995	35	1765	0.14
8	230	50	800	87	0.72	55	62	2350	48	1385	0.19
9	230	50	650	33	0.27	49	55	3235	0	1905	0.00
10	230	50	650	39	0.32	47	53	2830	12	1665	0.05
11	230	50	650	42	0.35	44	51	2435	23	1435	0.09
12	230	50	650	47	0.39	50	57	1910	32	1125	0.13
13	230	50	500	15	0.12	42	48	2490	0	1465	0.00
14	230	50	500	18	0.15	40	46	2175	7	1280	0.03
15	230	50	500	19	0.16	38	44	1875	14	1100	0.06
16	230	50	500	21	0.18	43	51	1470	19	865	0.08

U = Supply voltage · f = Frequency · n = Speed (rpm) · P_{ed} = Power input · I = Current draw · LpA_{in} = Sound pressure level inlet side · LwA_{in} = Sound power level inlet side · q_V = Air flow p_{fs} = Pressure increase

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