S3G450-EQ03-10

EC axial fan - HyBlade

sickled blades (S series), single inlet

with support ring

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Nominal data

Type	**S3G450-EQ03-10**
Motor	**M3G074-CF**

Phase		1~
Nominal voltage	VAC	230
Nominal voltage range	VAC	200 .. 240
Frequency	Hz	50/60
Type of data definition		ml
Speed (rpm)	min^{-1}	870
Power input	W	115
Current draw	A	0.94
Min. ambient temperature	°C	-25
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	3.3 kg
Size	450 mm
Surface of rotor	Coated in black
Material of blades	PP plastic
Material of mounting ring	Steel, coated in black plastic (RAL 9005)
Number of blades	3
Direction of air flow	"A"
Direction of rotation	Clockwise, seen on rotor
Type of protection	IP 54
Insulation class	"B"
Humidity (F)/environmental protection class (H)	H1+
Max. permissible ambient motor temp. (transp./ storage)	+ 80 °C
Mounting position	Any
Condensate discharge holes	None, open rotor
Cooling bore / aperture	Rotor-side
Operation mode	S1
Motor bearing	Ball bearing
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 61000-6-4 (industrial environment)
Touch current acc. IEC 60990 (measuring network Fig. 4, TN system)	<= 3.5 mA
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

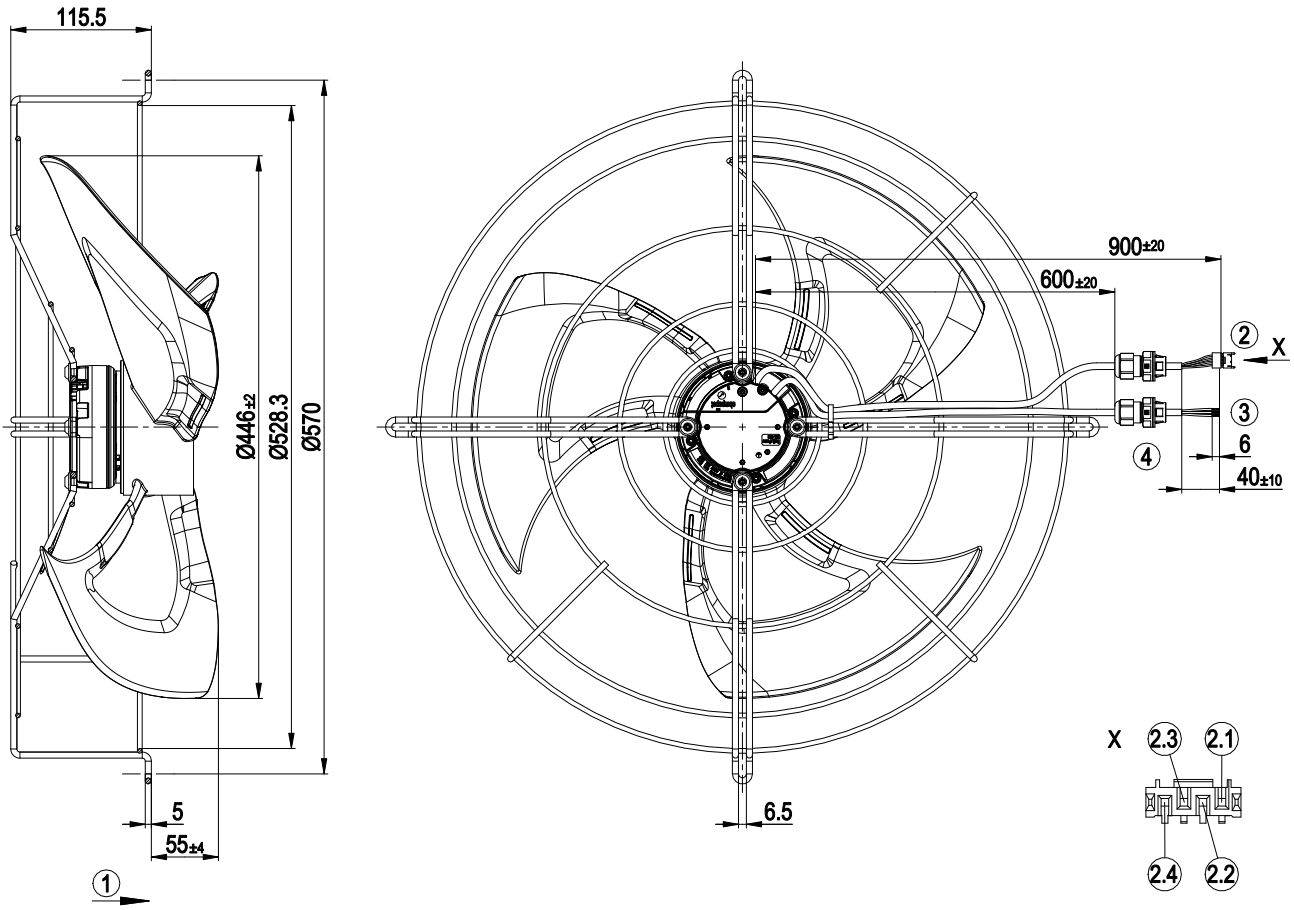
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Product drawing



1	Direction of air flow "A"
2	Connection line PVC AWG22, 4-pole connector housing Lumberg 3823 04 30 01, 4x plug pin Lumberg 3111 03 G crimped
2.1	+10 V (red)
2.2	0-10 V PWM (yellow)
2.3	Tach (white)
2.4	GND (blue)
3	Connection line PVC AWG20, 3x lead tips crimped
4	2x cable gland LAPP 53112686

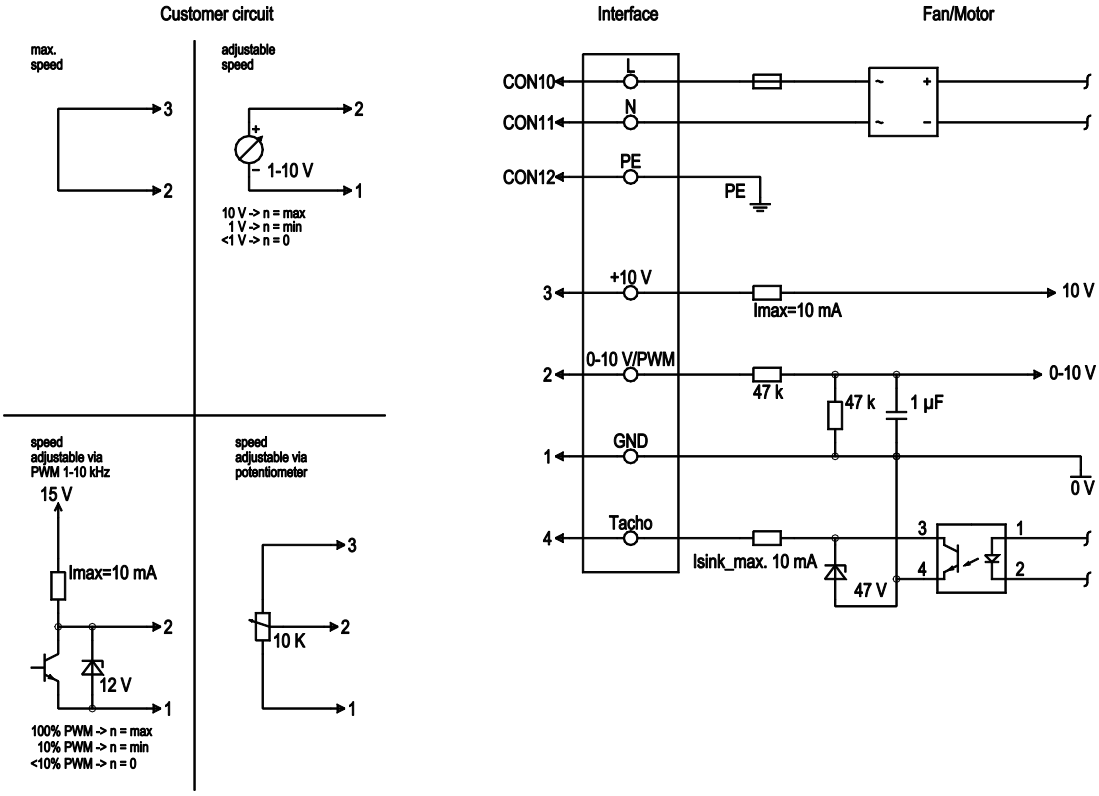
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Connection screen



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

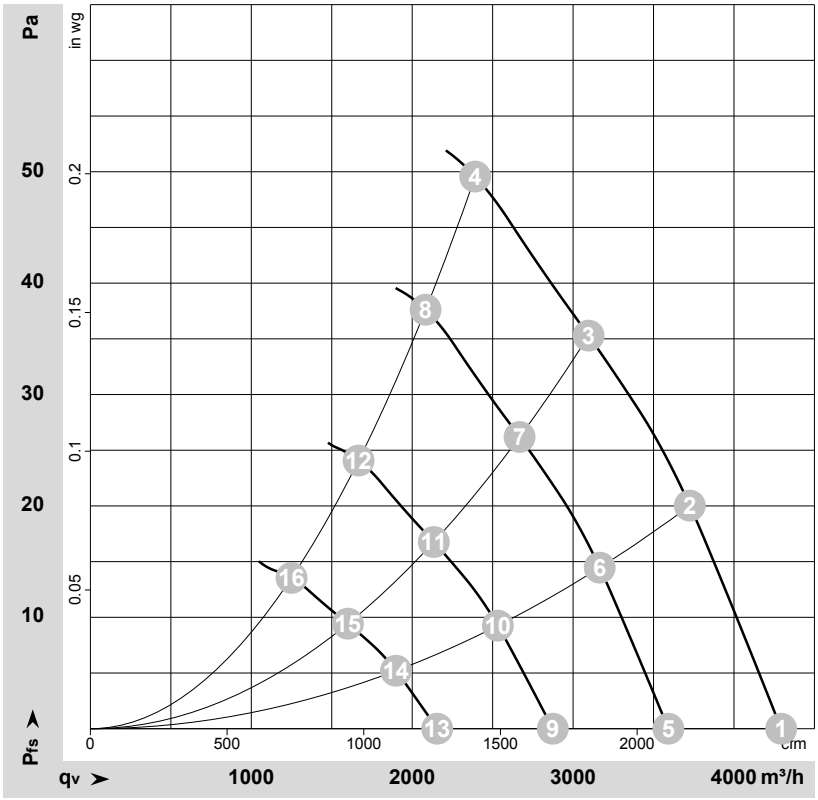
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Charts: Air flow 50 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-140882-1

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	q_V	p_{fs}	q_V	p_{fs}
	V	Hz	min^{-1}	W	A	m^3/h	Pa	cfm	inH2O
1	230	50	895	95	0.80	4295	0	2525	0.00
2	230	50	885	100	0.84	3725	20	2190	0.08
3	230	50	870	104	0.87	3095	35	1820	0.14
4	230	50	870	115	0.94	2390	50	1410	0.20
5	230	50	750	56	0.47	3590	0	2115	0.00
6	230	50	750	61	0.52	3165	15	1865	0.06
7	230	50	750	67	0.55	2670	26	1570	0.10
8	230	50	750	72	0.59	2085	38	1225	0.15
9	230	50	600	29	0.24	2875	0	1690	0.00
10	230	50	600	31	0.26	2530	9	1490	0.04
11	230	50	600	34	0.28	2135	17	1255	0.07
12	230	50	600	37	0.30	1665	24	980	0.10
13	230	50	450	12	0.10	2155	0	1270	0.00
14	230	50	450	13	0.11	1900	5	1120	0.02
15	230	50	450	14	0.12	1600	9	940	0.04
16	230	50	450	15	0.13	1250	14	735	0.06

U = Supply voltage · f = Frequency · n = Speed (rpm) · P_{ed} = Power input · I = Current draw · q_V = Air flow · p_{fs} = Pressure increase

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