EC axial fan - HyBlade

sickle-shaped blades (S series)

with support ring

S3G450-EQ03-01 ebmpapst Datasheet
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www.fansco.com

Nominal data

Type	**S3G450-EQ03-01**	
Motor	**M3G074-CF**	
Phase		1~
Nominal voltage	VAC	230
Frequency	Hz	50/60
Method of obtaining data		ml
Status		prelim.
Speed	min^{-1}	820
Power consumption	W	92
Current draw	A	0.75
Max. back pressure	Pa	45
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	2.1 kg
Fan size	450 mm
Rotor surface	Galvanized
Blade material	PP 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	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
Mode	S1
Motor bearing	Ball bearing
Technical features	- Output 10 VDC, max. 1.1 mA - Motor current limitation - Soft start - Control input 0-10 VDC / PWM - Control interface with SELV potential safely disconnected from supply - Thermal overload protection for electronics/motor
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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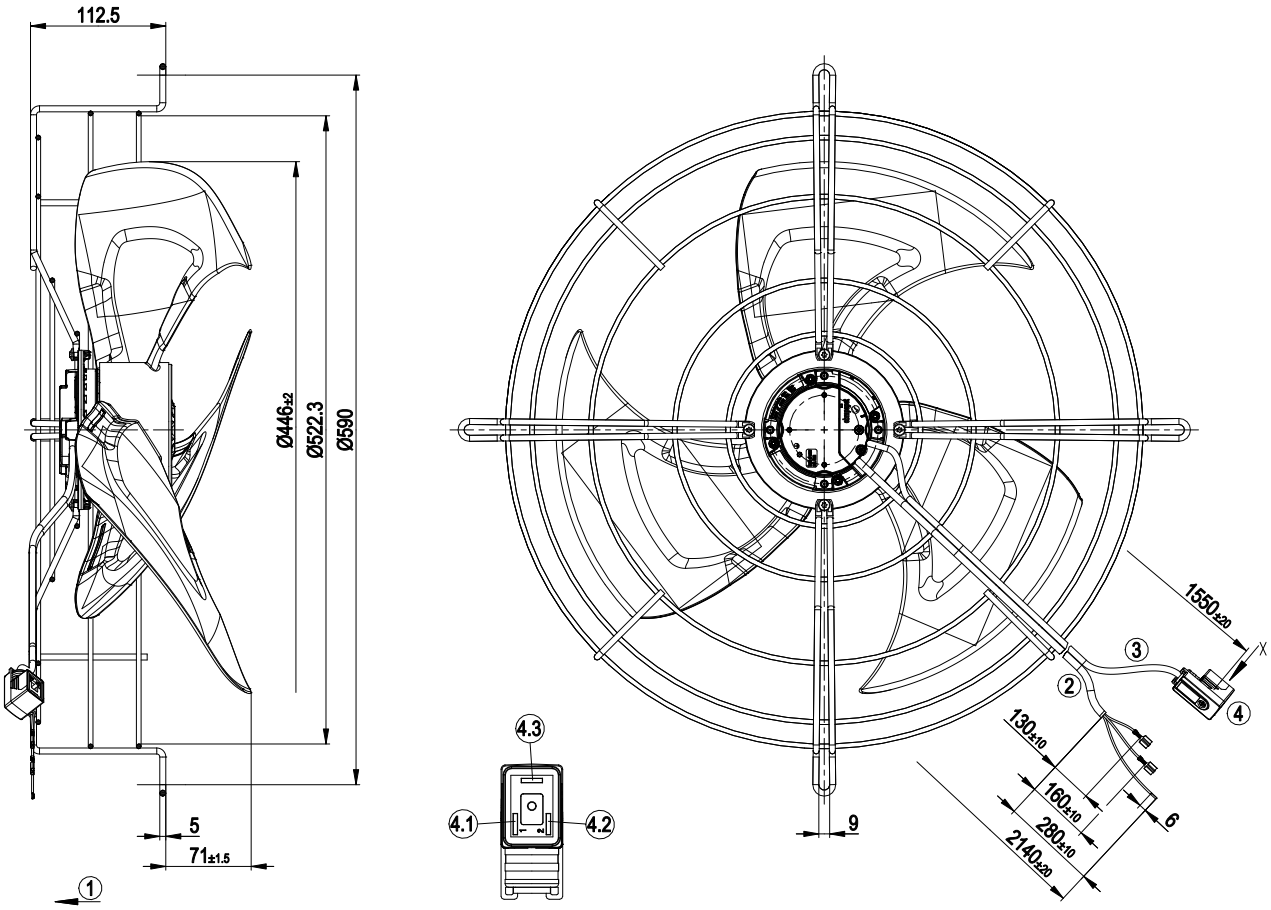
Product drawing



1	Direction of air flow "V"
2	Cable PVC AWG20, 1x splice, 2x Stocko RSB flat push-on receptacle 6.3 x 0.8
3	Cable PVC 3x 0.34 mm²
4	Valve plug connector according to EN 175301-803 with injection-molded seal
4.1	10 V max. 1.1 mA
4.2	GND
4.3	0-10 V PWM

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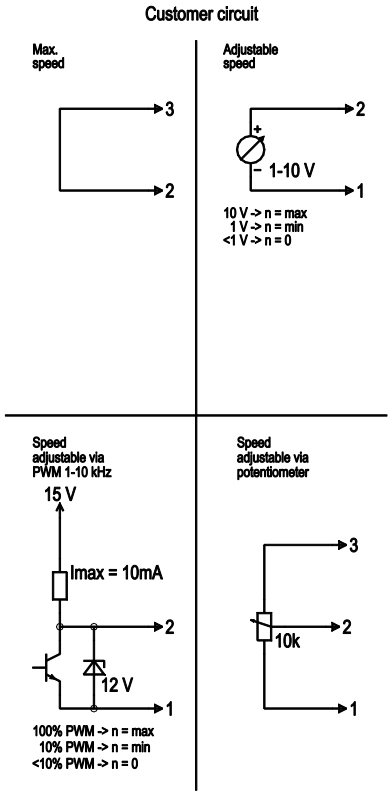
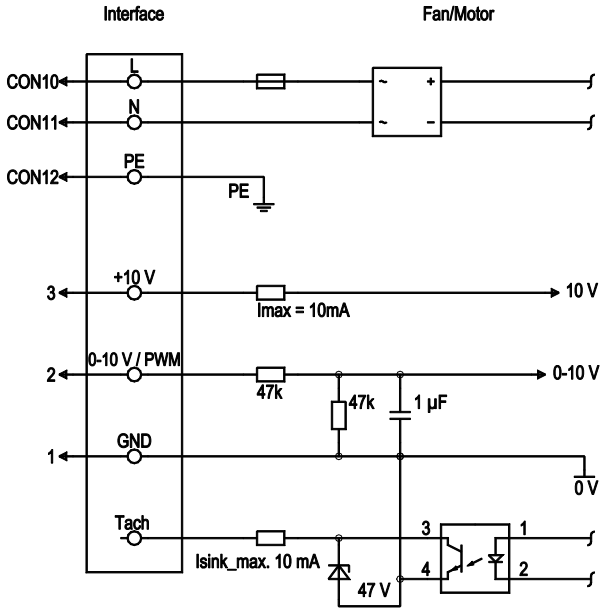
Connection diagram





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
	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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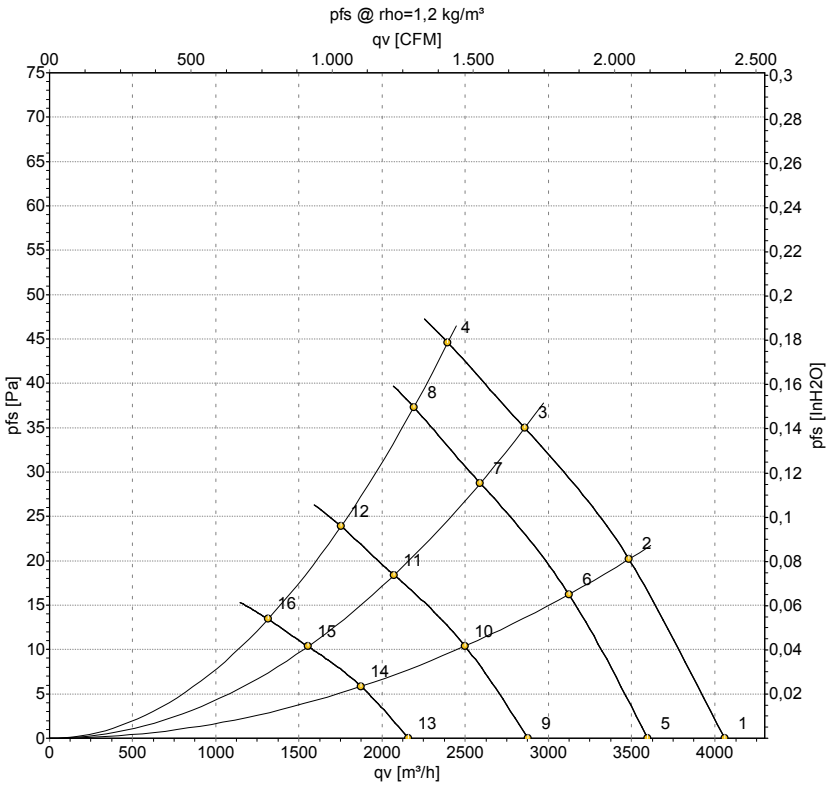
Curves: Air performance 50 Hz



Measurement: LU-137281-1

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}
	V	Hz	min^{-1}	W	A	m^3/h	Pa
1	230	50	845	80	0.67	4060	0
2	230	50	835	86	0.72	3485	20
3	230	50	825	90	0.74	2855	35
4	230	50	820	92	0.75	2395	45
5	230	50	750	56	0.46	3595	0
6	230	50	750	62	0.51	3120	16
7	230	50	750	67	0.55	2590	29
8	230	50	750	70	0.57	2190	37
9	230	50	600	29	0.24	2875	0
10	230	50	600	32	0.26	2500	10
11	230	50	600	34	0.28	2070	18
12	230	50	600	36	0.29	1750	24
13	230	50	450	12	0.10	2155	0
14	230	50	450	13	0.11	1875	6
15	230	50	450	14	0.12	1555	10
16	230	50	450	15	0.12	1315	13

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