S3G450-LA14-71

EC axial fan

sickled blades (S series)

with guard grille for short nozzle

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ErP2015 EXCEEDS THE NORM

Nominal data

Type	**S3G450-LA14-71**
Motor	**M3G084-FA**

Phase		1~
Nominal voltage	VAC	230
Nominal voltage range	VAC	200 .. 277
Frequency	Hz	50/60
Type of data definition		ml
Speed	min^{-1}	1220
Power input	W	310
Current draw	A	2.0
Max. back pressure	Pa	120
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

Data according to ErP directive

Installation category	A
Efficiency category	Static
Variable speed drive	Yes
Specific ratio*	1.00

* Specific ratio = 1 + p_{fs} / 100 000 Pa

		Actual	Request 2013	Request 2015
Overall efficiency η_{es}	%	44.1	26.4	30.4
Efficiency grade N		53.7	36	40
Power input P_{ed}	kW	0.3		
Air flow q_v	m^3/h	3605		
Pressure increase p_{fs}	Pa	121		
Speed n	min^{-1}	1220		

Data definition with optimum efficiency. LU-71846
The ErP data is determined using a motor-impeller combination in a standardised measurement configuration.

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Technical features

Mass	7.52 kg
Size	450 mm
Surface of rotor	Coated in black
Material of electronics housing	Die-cast aluminium
Material of blades	Sheet steel, coated in black
Material of guard grille	Steel, phosphated and coated in black plastic
Number of blades	5
Direction of rotation	"V"
Type of protection	IP 54
Insulation class	"B"
Humidity class	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; rotor on top on request
Condensate discharge holes	Rotor-side
Operation mode	S1
Motor bearing	Ball bearing
Technical features	- Output 10 VDC, max. 1.1 mA - Alarm relay - Motor current limit - Soft start - Control input 0-10 VDC / PWM - 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
Motor protection	Thermal overload protector (TOP) wired internally
Cable exit	Variable
Protection class	I (if protective earth is connected by customer)
Product conforming to standard	EN 61800-5-1; CE
Approval	CSA C22.2 Nr.77; EAC; UL 2111

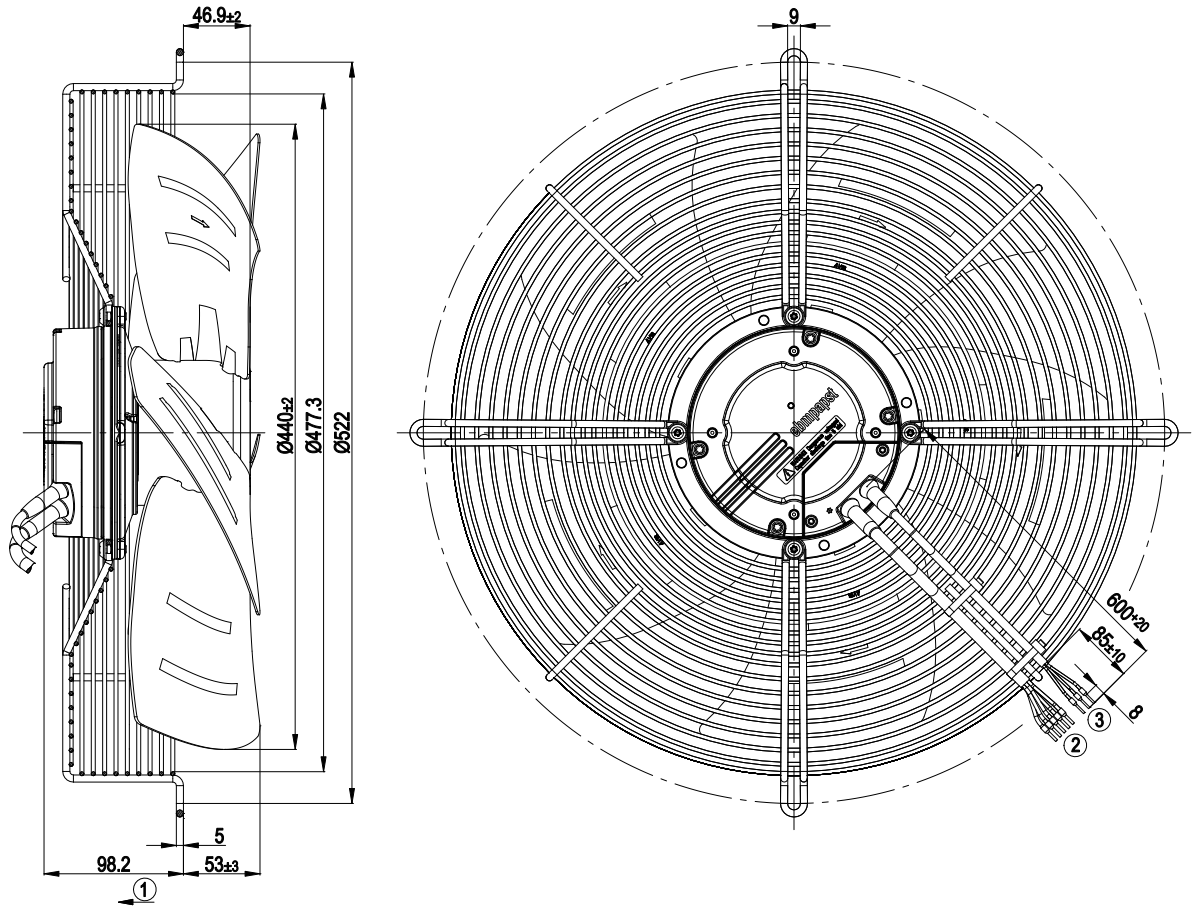
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Product drawing



1	Direction of air flow "V"
2	Connection line AWG 18, 5x crimped core-end sleeves
3	Connection line AWG 22, 3x crimped core-end sleeves

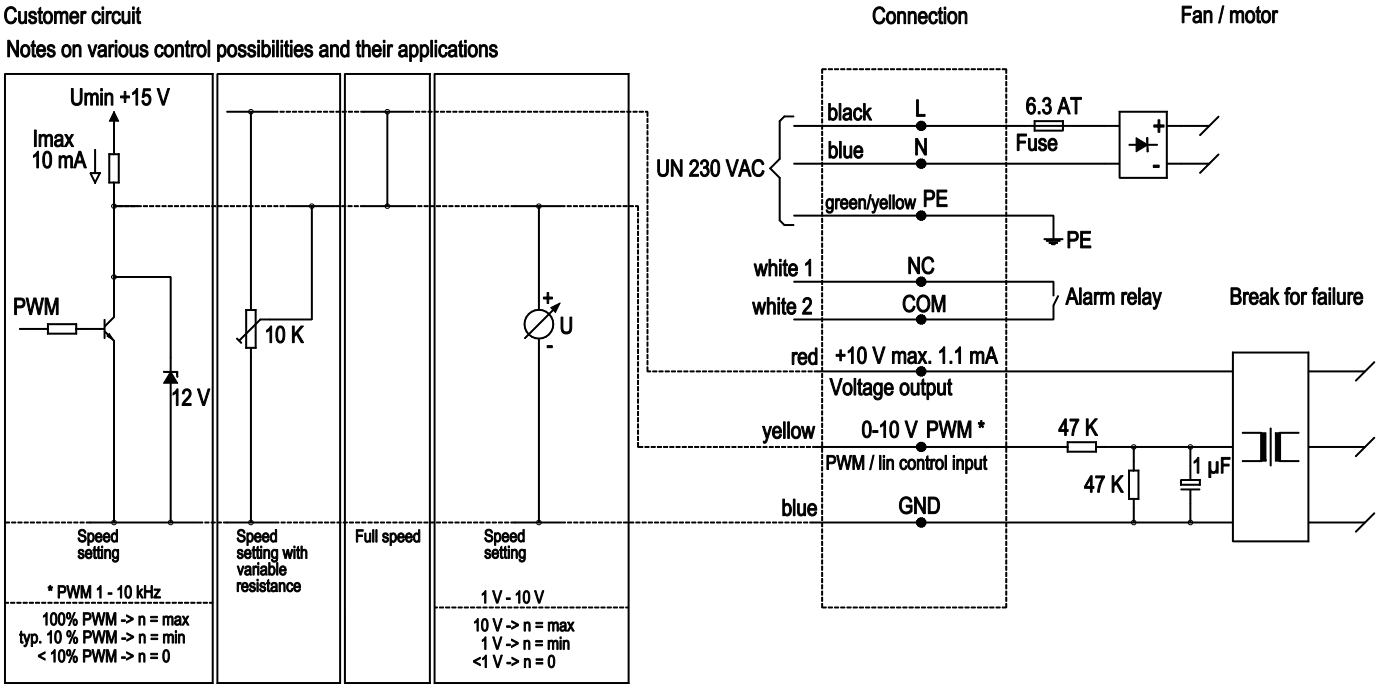
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Connection screen



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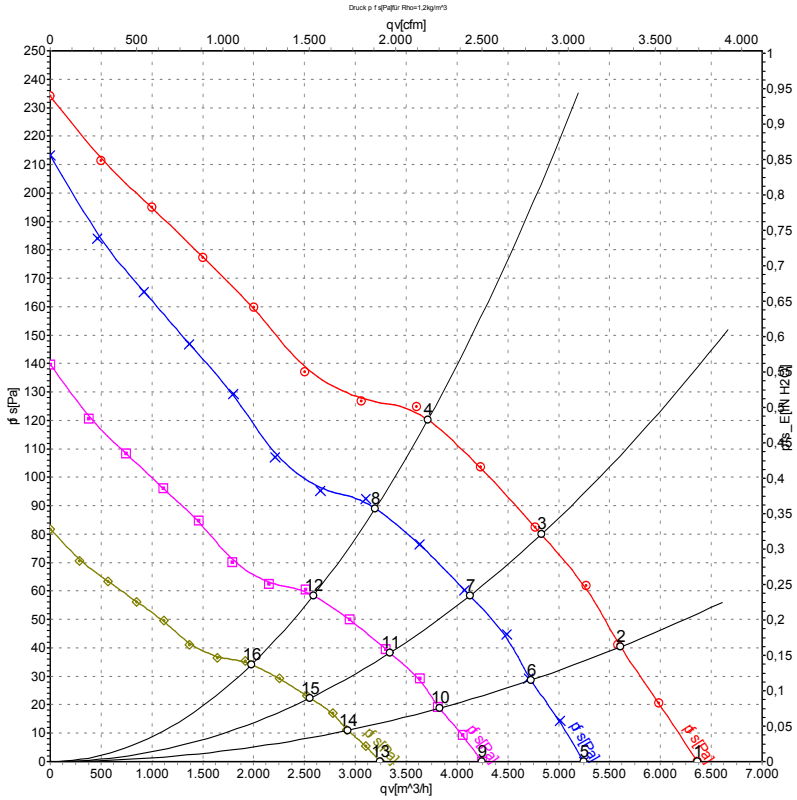
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Charts: Air flow 50 Hz



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	qv	p_{fs}
	V	Hz	min^{-1}	W	A	m^3/h	Pa
1	230	50	1275	267	1.68	6360	0
2	230	50	1245	282	1.79	5610	40
3	230	50	1230	298	1.89	4830	80
4	230	50	1220	310	2.00	3715	120
5	230	50	1050	149	0.94	5245	0
6	230	50	1050	169	1.07	4730	28
7	230	50	1050	186	1.18	4125	58
8	230	50	1050	196	1.25	3195	90
9	230	50	850	79	0.50	4245	0
10	230	50	850	89	0.57	3830	18
11	230	50	850	99	0.62	3340	38
12	230	50	850	104	0.66	2585	59
13	230	50	650	35	0.22	3245	0
14	230	50	650	40	0.25	2925	11
15	230	50	650	44	0.28	2555	22
16	230	50	650	47	0.30	1980	34

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

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