S3G400-KA22-72

EC axial fan

sickled blades (S series)

with guard grille for full nozzle

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ErP2015 EXCEEDS THE NORM

Nominal data

Type	**S3G400-KA22-72**
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}	1630
Power input	W	410
Current draw	A	2.6
Max. back pressure	Pa	180
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	55

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}	%	44.8	27.2	31.2
Efficiency grade N		53.6	36	40
Power input P_{ed}	kW	0.4		
Air flow q_v	m^3/h	3265		
Pressure increase p_{fs}	Pa	181		
Speed n	min^{-1}	1630		

Data definition with optimum efficiency. LU-71911
The ErP data is determined using a motor-impeller combination in a standardised measurement configuration.

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Technical features

Mass	6.5 kg
Size	400 mm
Surface of rotor	Coated in black
Material of electronics housing	Die-cast aluminium
Material of impeller	Sheet steel, coated in black
Material of guard grille	Steel, coated in black plastic (RAL9005)
Number of blades	5
Direction of air flow	"A"
Direction of rotation	Clockwise, seen on rotor
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 - Control interface with SELV potential safely disconnected from the mains - Over-temperature protected electronics / motor - Line undervoltage detection
EMC interference immunity	Acc. to EN 61000-6-2 (industrial environment)
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	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

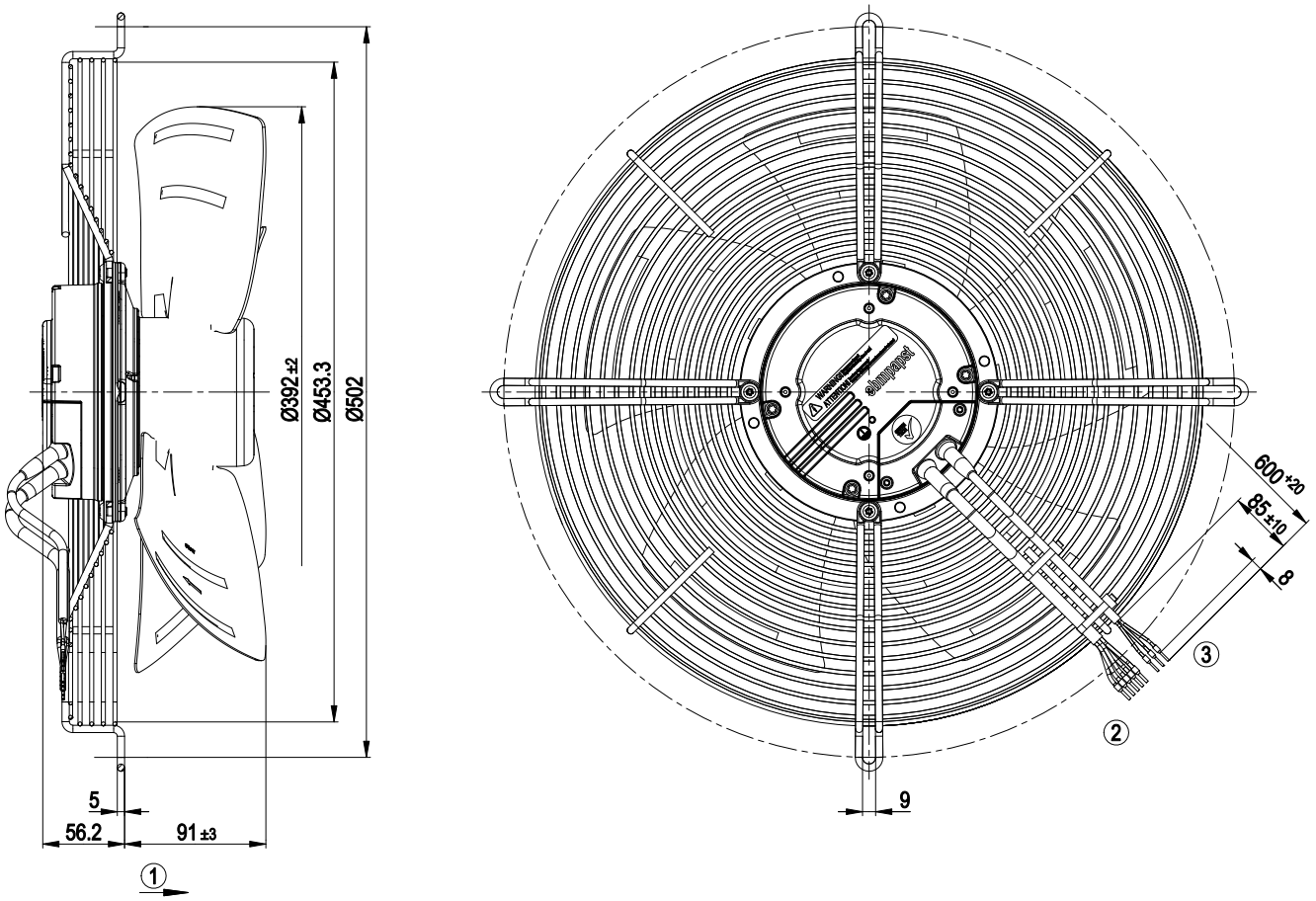
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Product drawing



1	Direction of air flow "A"
2	Connection line AWG18, 5x crimped core-end sleeves
3	Connection line AWG22, 3x crimped core-end sleeves

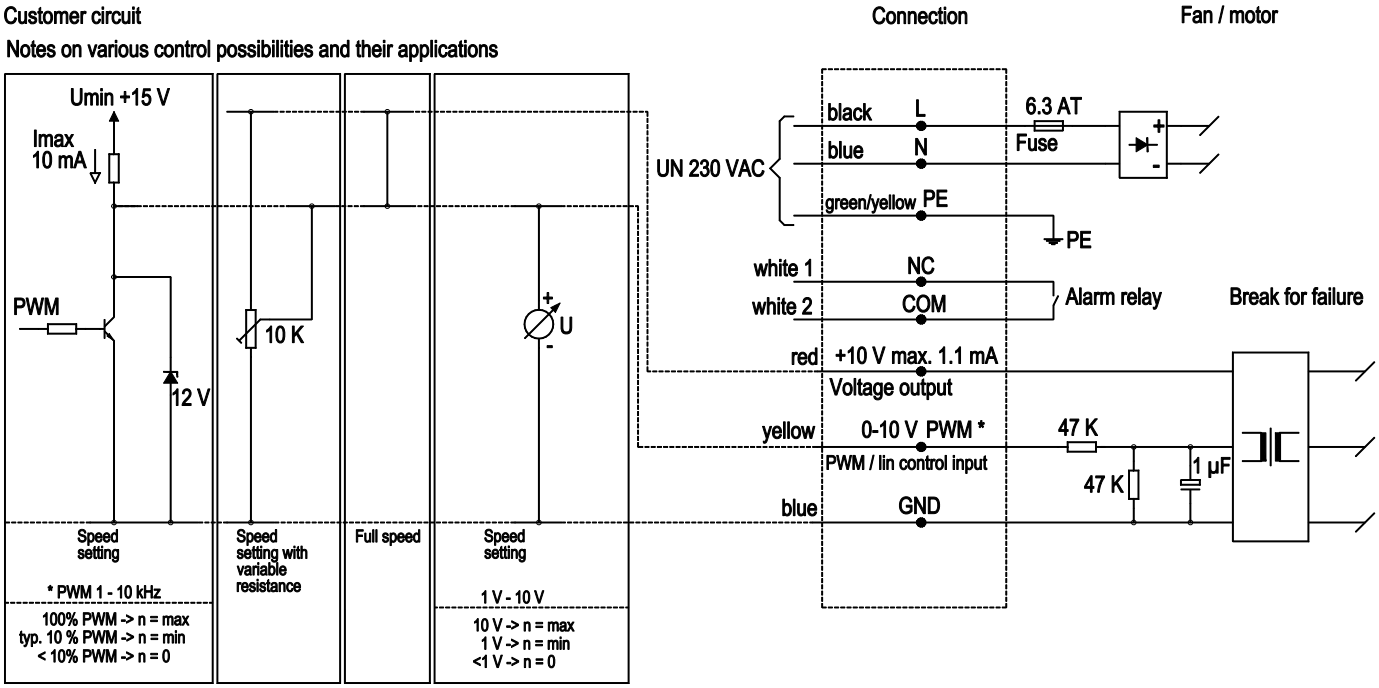
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Connection screen



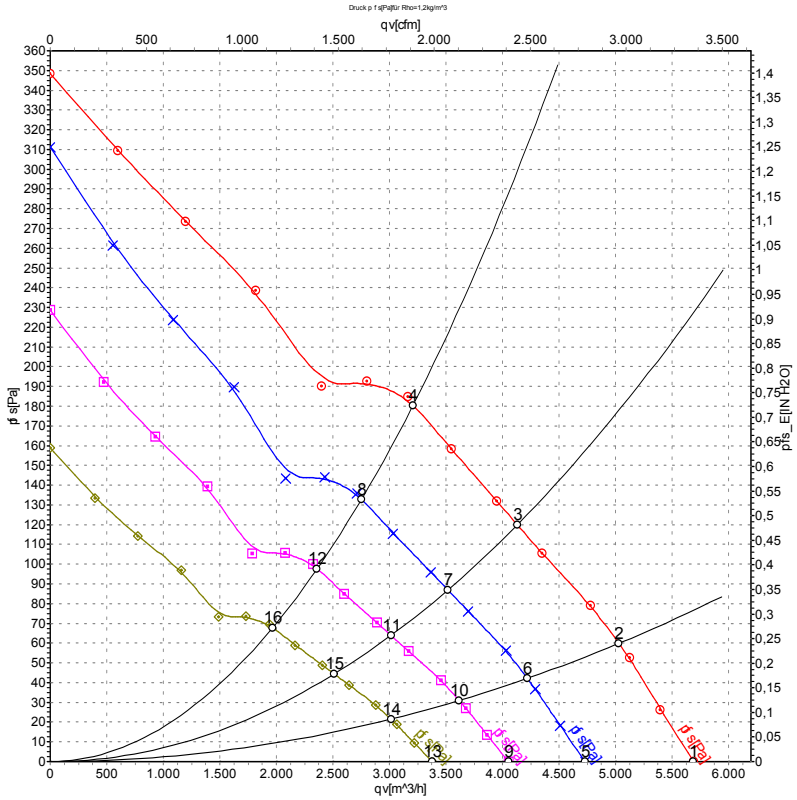
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Charts: Air flow 50 Hz



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	1685	341	2.08	5690	0
2	230	50	1670	369	2.24	5030	60
3	230	50	1645	379	2.31	4130	120
4	230	50	1630	410	2.60	3210	180
5	230	50	1400	196	1.20	4730	0
6	230	50	1400	218	1.32	4220	42
7	230	50	1400	234	1.43	3520	87
8	230	50	1400	246	1.49	2755	134
9	230	50	1200	123	0.75	4055	0
10	230	50	1200	137	0.83	3620	31
11	230	50	1200	148	0.90	3015	64
12	230	50	1200	155	0.94	2360	98
13	230	50	1000	71	0.44	3380	0
14	230	50	1000	79	0.48	3015	22
15	230	50	1000	85	0.52	2515	44
16	230	50	1000	90	0.54	1965	68

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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