S3G400-CK56-01

EC axial fan - HyBlade®

sickled blades (S series)

with guard grille for short nozzle

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ErP2015 EXCEEDS THE NORM

Nominal data

Type	**S3G400-CK56-01**	
Motor	**M3G074-CF**	
Phase		1~
Nominal voltage	VAC	230
Frequency	Hz	50/60
Type of data definition		me
Speed	min^{-1}	1100
Power input	W	135
Current draw	A	1.1
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}		36.6	24.1	28.1
Efficiency grade N		48.5	36	40
Power input P_{ed}	kW	0.13		
Air flow q_v	m^3/h	2405		
Pressure increase p_{fs}	Pa	67		
Speed n	min^{-1}	1085		

Data established at point of optimum efficiency

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Technical features

Mass	4.22 kg
Size	400 mm
Surface of rotor	Coated in black
Material of electronics housing	Die-cast aluminium
Material of blades	Press-fitted sheet steel blank, sprayed with PP plastic
Material of guard grille	Steel, phosphated and coated in black plastic
Number of blades	5
Direction of air flow	"V"
Type of protection	IP 44; Depending on installation and position as per EN 60034-5
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	- Control input 0-10 VDC / PWM - Output 10 VDC, max. 1.1 mA - Tach output - Over-temperature protected motor - Soft start
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)
Approval	UL 2111; CSA C22.2 Nr.77

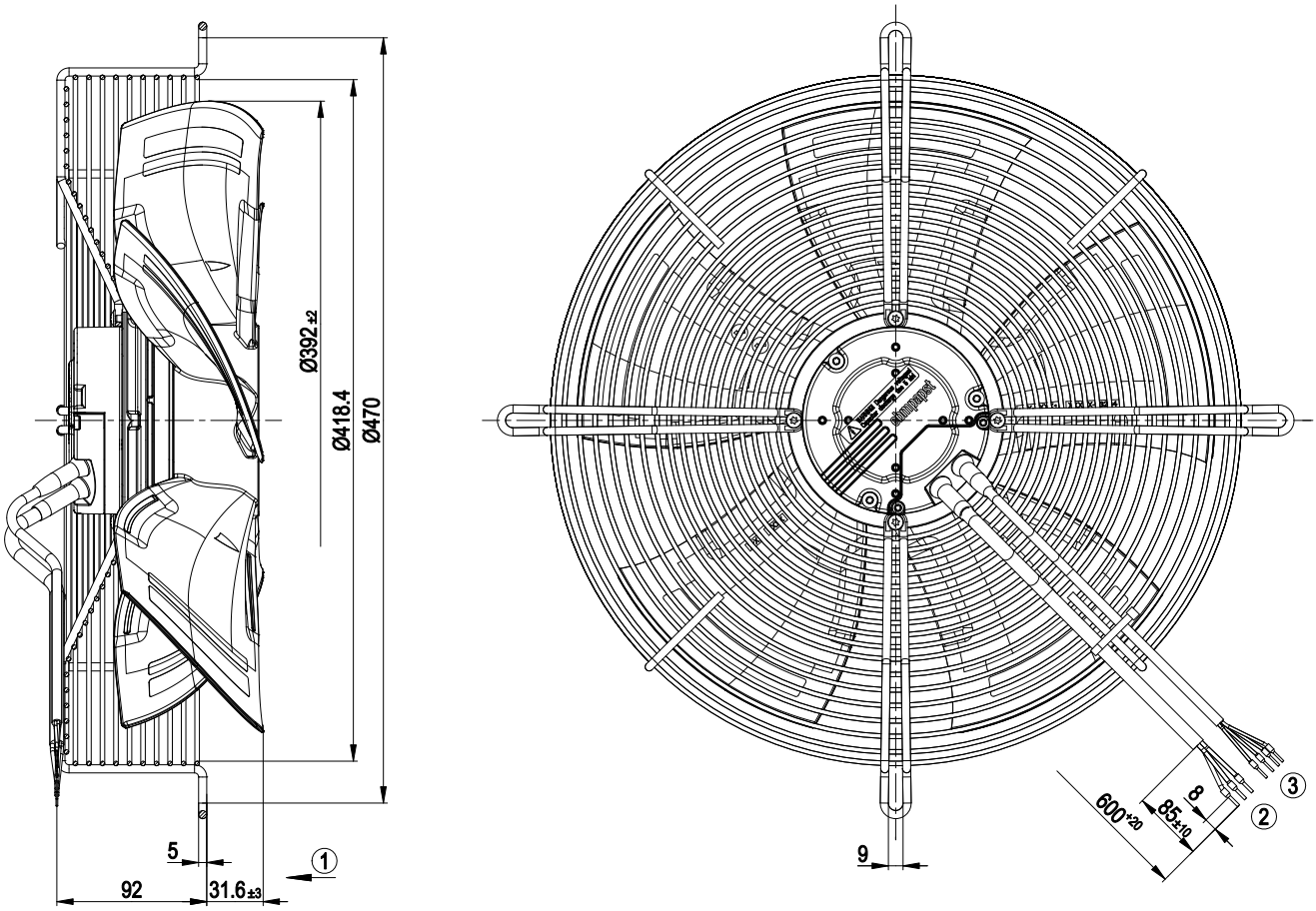
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Product drawing



1	Direction of air flow "V"
2	Connection line AWG 18, 3 x crimped core-end sleeves
3	Connection line AWG 22, 4 x crimped core-end sleeves

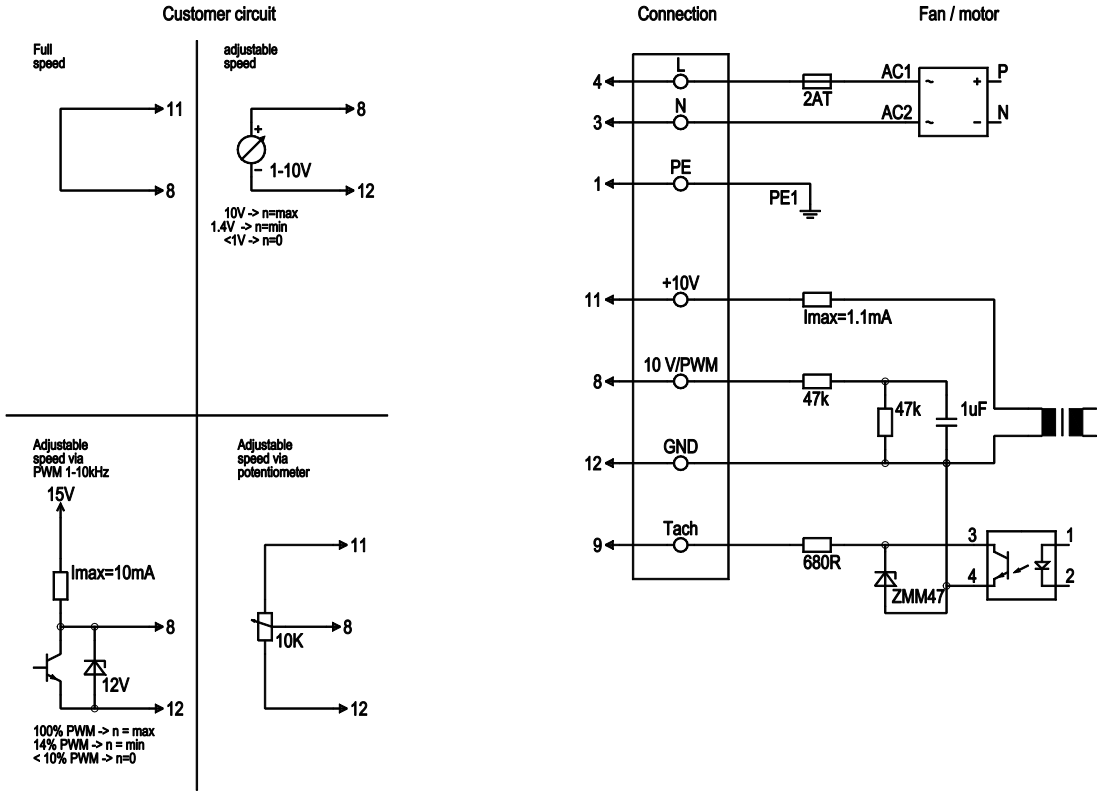
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Connection screen



Line	No.	Signal	Colour	Function / assignment
	4	L	black	Power supply 230 VAC, 50-60 Hz, see type plate for voltage range
	3	N	blue	Neutral conductor
	1	PE	green/yellow	Protective earth
	8	0-10 V PWM	yellow	Control input 0 - 10 V or PWM, electrically isolated
	9	Tach	white	Tach output: open collector, 1 pulse per revolution, electrically isolated
	11	10V / max 1.1 mA	red	Voltage output 10 V / max. 1.1 mA, electrically isolated
	12	GND	blue	GND - Connection for control interface

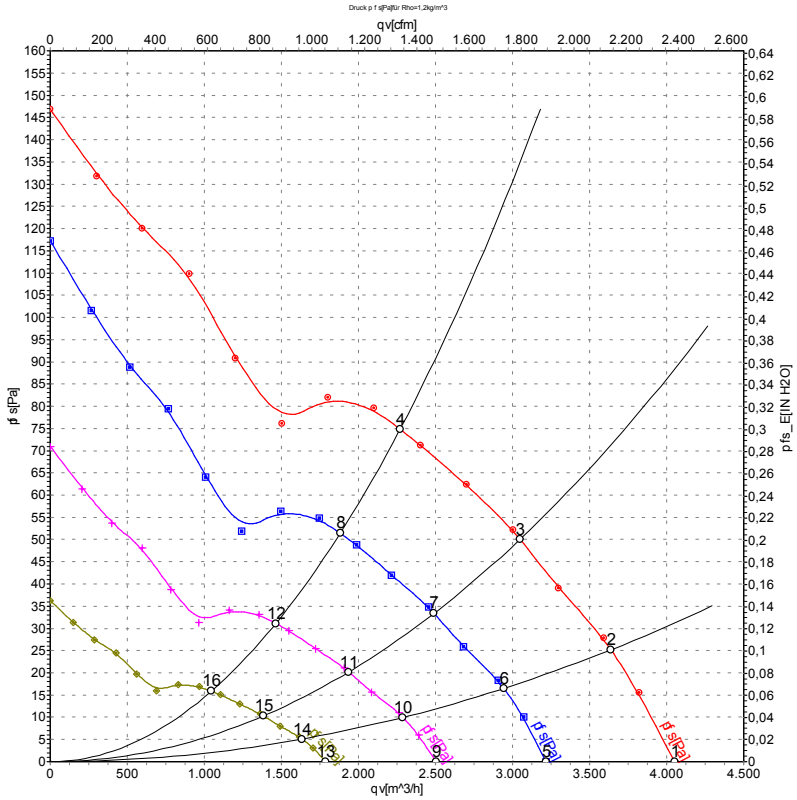
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Charts: Air flow 50 Hz



Measurement: LU-124733

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}	qv	p_{fs}
	V	Hz	min^{-1}	W	A	dB(A)	dB(A)	m^3/h	Pa
1	230	50	1135	120	0.85	62	69	4050	0
2	230	50	1115	129	0.91	60	66	3635	25
3	230	50	1100	134	0.95	57	64	3050	50
4	230	50	1100	135	1.10	58	66	2270	75
5	230	50	900	60	0.43	57	64	3220	0
6	230	50	900	68	0.48	55	62	2940	17
7	230	50	900	73	0.52	52	59	2490	34
8	230	50	900	80	0.56	54	62	1880	51
9	230	50	700	28	0.20	51	58	2505	0
10	230	50	700	32	0.23	50	56	2290	10
11	230	50	700	34	0.24	47	54	1935	20
12	230	50	700	37	0.27	49	56	1465	31
13	230	50	500	10	0.07	44	51	1790	0
14	230	50	500	12	0.08	42	49	1635	5
15	230	50	500	13	0.09	39	46	1385	10
16	230	50	500	14	0.10	41	49	1045	16

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

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