S3G400-CK56-01

EC axial fan - HyBlade

sickled blades (S series)

with guard grille for short nozzle

ebm-papst Mulfingen GmbH & Co. KG
Bachmühle 2 · D-74673 Mulfingen
Phone +49 7938 81-0
Fax +49 7938 81-110
info1@de.ebmpapst.com
www.ebmpapst.com

Limited partnership · Headquarters Mulfingen
County court Stuttgart · HRA 590344

General partner Elektrobau Mulfingen GmbH · Headquarters Mulfingen
County court Stuttgart · HRB 590142

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 (rpm)	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

		Actual	Request 2015
01 Overall efficiency η_{es}	%	36.6	28.1
02 Measurement category		A	
03 Efficiency category		Static	
04 Efficiency grade N		48.5	40
05 Variable speed drive		Yes	

09 Power input P_{ed}	kW	0.13
09 Air flow q_v	m^3/h	2405
09 Pressure increase p_{fs}	Pa	67
10 Speed (rpm) n	min^{-1}	1085
11 Specific ratio*		1.00

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

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

LU-124733

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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 (F)/environmental protection class (H)	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 No.77

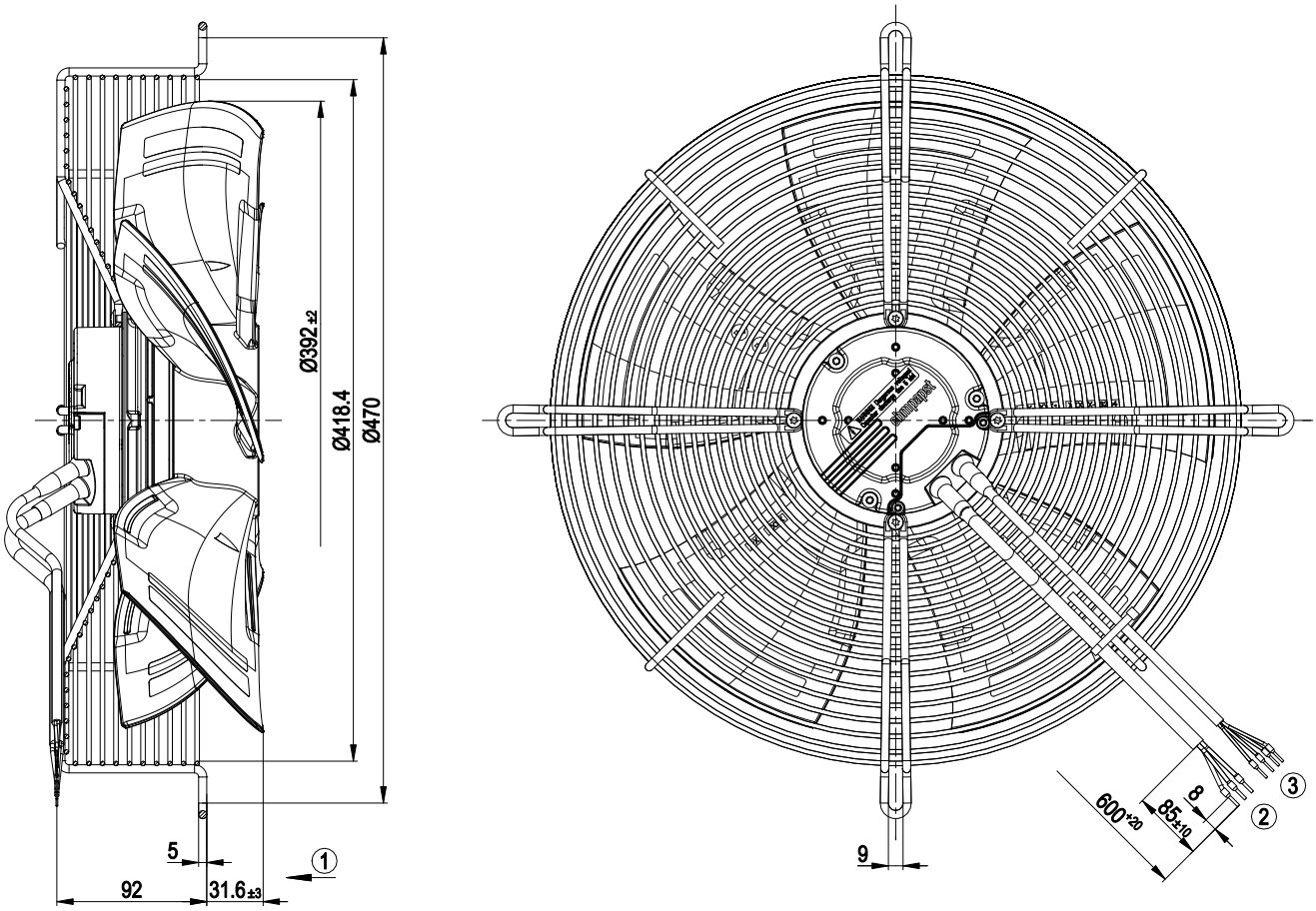
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Product drawing



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

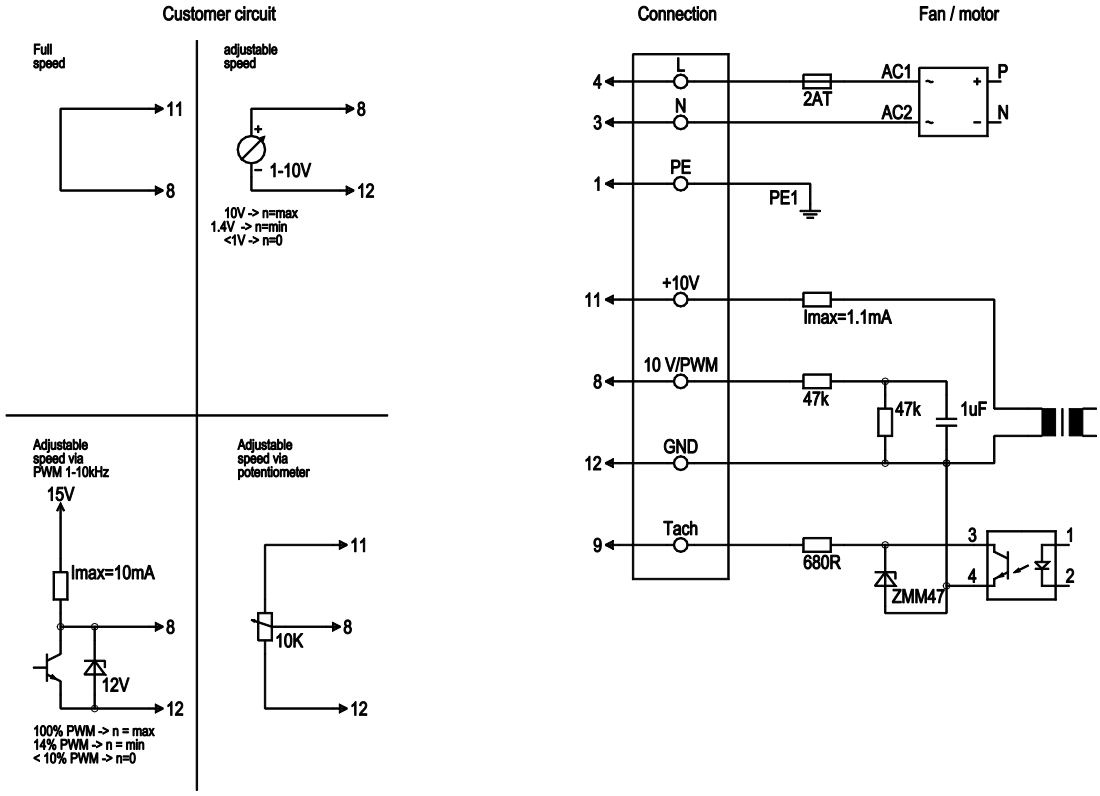
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Connection screen



No.	Conn.	Designation	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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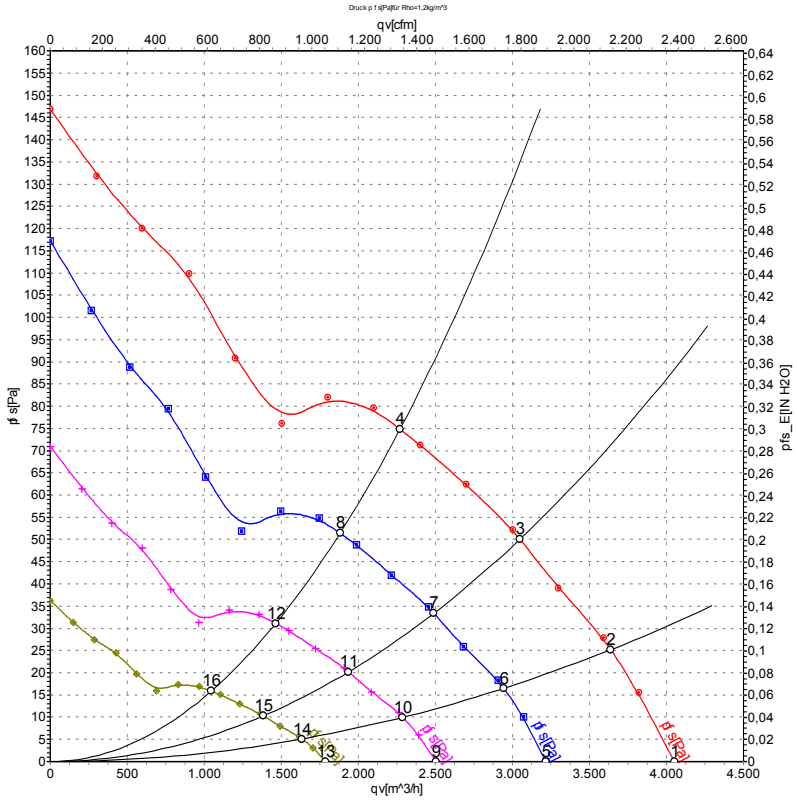
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Charts: Air flow 50 Hz



Measurement: LU-124733-1

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	LpA_{in}	LwA_{in}	q_V	p_{fs}	q_V	p_{fs}
	V	Hz	min^{-1}	W	A	dB(A)	dB(A)	m^3/h	Pa	cfm	inH2O
1	230	50	1135	120	0.85	62	69	4050	0	2385	0.00
2	230	50	1115	129	0.91	60	66	3635	25	2140	0.10
3	230	50	1100	134	0.95	57	64	3050	50	1795	0.20
4	230	50	1100	135	1.10	58	66	2270	75	1335	0.30
5	230	50	900	60	0.43	57	64	3220	0	1895	0.00
6	230	50	900	68	0.48	55	62	2940	17	1730	0.07
7	230	50	900	73	0.52	52	59	2490	34	1465	0.14
8	230	50	900	80	0.56	54	62	1880	51	1110	0.20
9	230	50	700	28	0.20	51	58	2505	0	1475	0.00
10	230	50	700	32	0.23	50	56	2290	10	1345	0.04
11	230	50	700	34	0.24	47	54	1935	20	1140	0.08
12	230	50	700	37	0.27	49	56	1465	31	860	0.12
13	230	50	500	10	0.07	44	51	1790	0	1050	0.00
14	230	50	500	12	0.08	42	49	1635	5	960	0.02
15	230	50	500	13	0.09	39	46	1385	10	815	0.04
16	230	50	500	14	0.10	41	49	1045	16	615	0.06

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

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