S3G300-AB56-16

EC axial fan

sickled blades (S series)

with guard grille for short nozzle

S3G300-AB56-16 ebmpapst Datasheet
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Nominal data

Type	**S3G300-AB56-16**
Motor	**M3G074-CF**

Phase		1~
Nominal voltage	VAC	230
Nominal voltage range	VAC	200 .. 277
Frequency	Hz	50/60
Type of data definition		ml
Speed (rpm)	min^{-1}	1580
Power input	W	103
Current draw	A	0.76
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

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Technical features

Mass	3.5 kg
Size	300 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 air flow	"V"
Direction of rotation	Counter-clockwise, seen on rotor
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 electronics / motor - Motor current limit - 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 61000-6-4 (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
Approval	UL 2111; CSA C22.2 No.77

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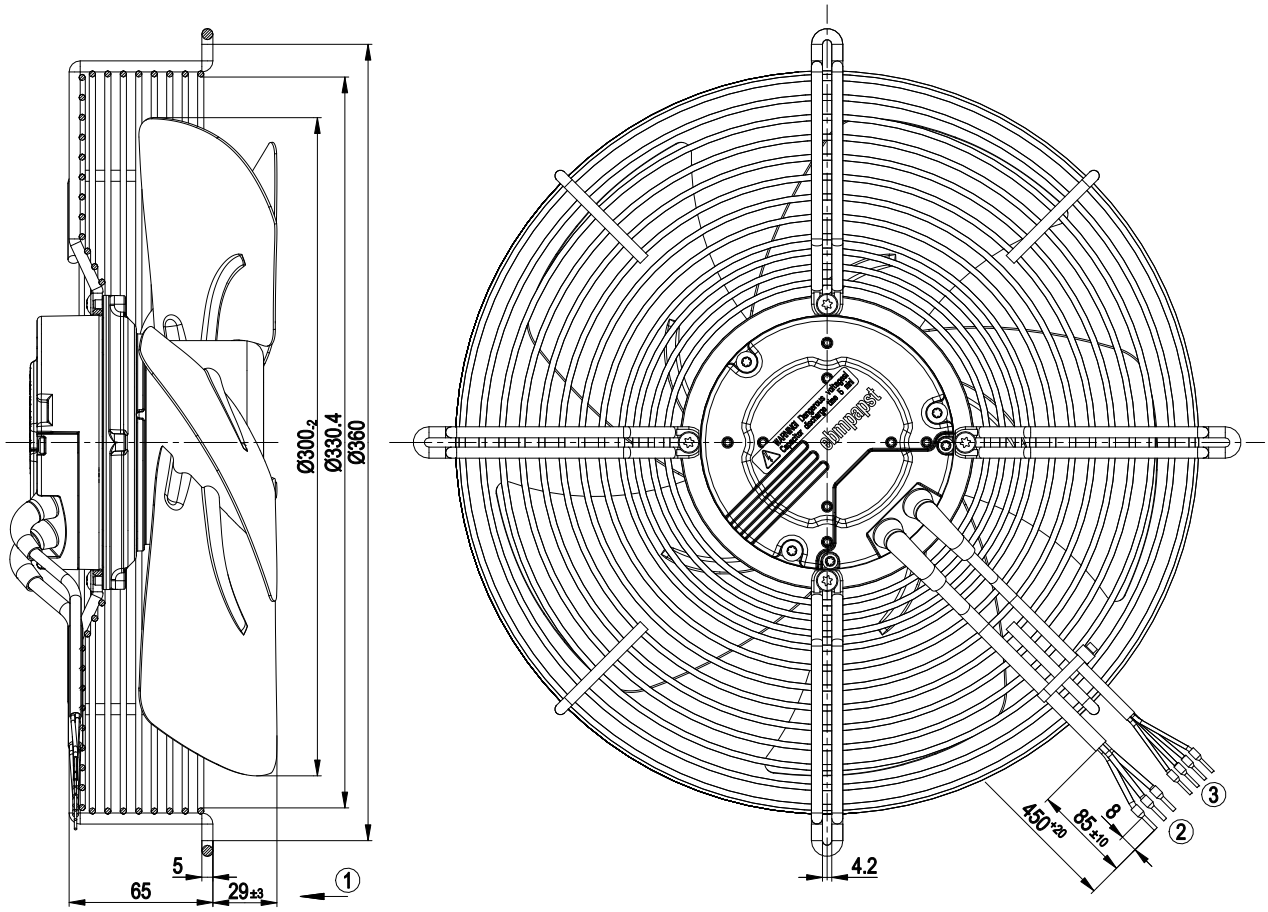
Product drawing



1	Direction of air flow "V"
2	Connection line PVC 3G AWG 18, 3x crimped core-end sleeves
3	Connection line 4x AWG22, 4 x crimped core-end sleeves

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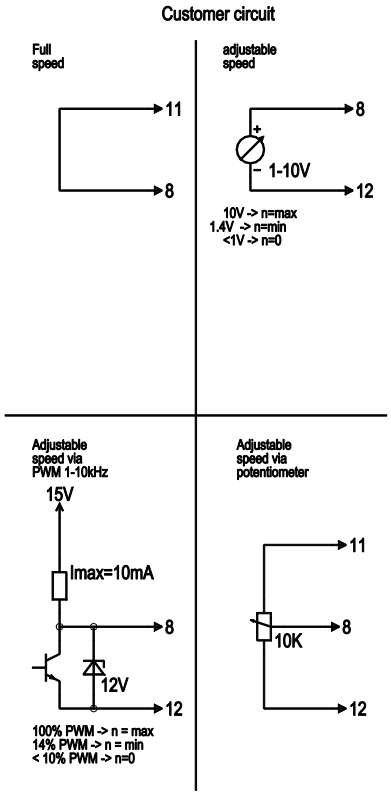
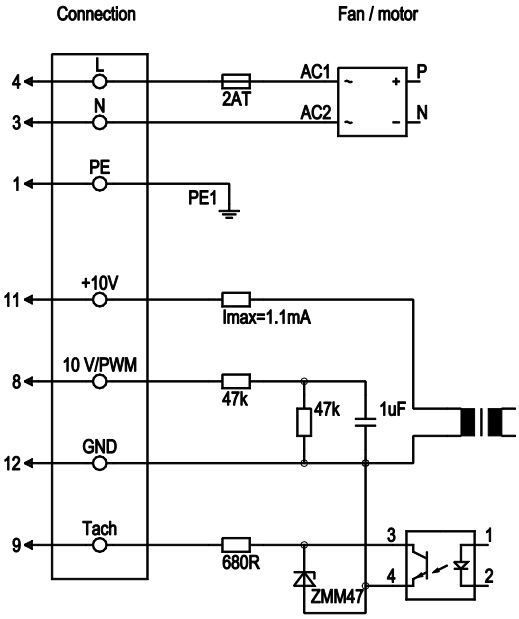
Connection screen





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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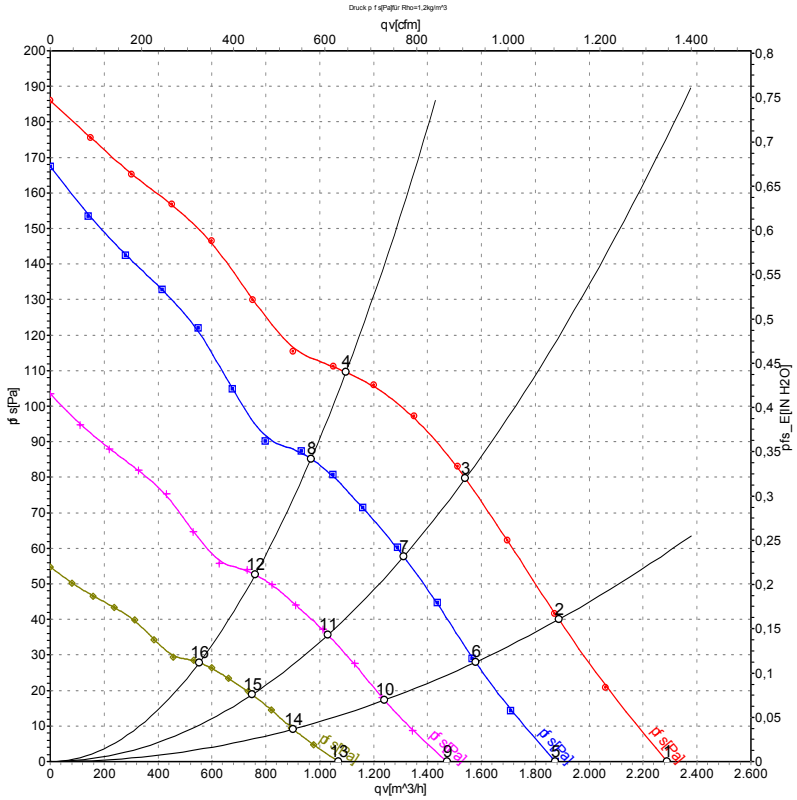
Charts: Air flow 50 Hz



Measurement: LU-72521-1

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	q_V	p_{fs}	q_V	p_{fs}
	V	Hz	min^{-1}	W	A	m^3/h	Pa	cfm	inH2O
1	230	50	1710	76	0.55	2290	0	1350	0.00
2	230	50	1675	84	0.61	1885	40	1110	0.16
3	230	50	1645	89	0.65	1540	80	905	0.32
4	230	50	1580	103	0.76	1095	110	645	0.44
5	230	50	1400	42	0.30	1875	0	1100	0.00
6	230	50	1400	49	0.36	1580	28	930	0.11
7	230	50	1400	55	0.40	1310	58	770	0.23
8	230	50	1400	70	0.51	970	85	570	0.34
9	230	50	1100	20	0.15	1470	0	865	0.00
10	230	50	1100	24	0.17	1240	17	730	0.07
11	230	50	1100	27	0.19	1030	36	605	0.14
12	230	50	1100	34	0.25	760	53	445	0.21
13	230	50	800	7.8	0.06	1070	0	630	0.00
14	230	50	800	9.1	0.07	900	9	530	0.04
15	230	50	800	10	0.08	750	19	440	0.08
16	230	50	800	13	0.10	555	28	325	0.11

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