S3G300-AN02-11

EC axial fan

sickled blades (S series)

with guard grille for full nozzle

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Nominal data

Type	**S3G300-AN02-11**
Motor	**M3G074-CF**

Phase		1~
Nominal voltage	VAC	230
Nominal voltage range	VAC	200 .. 240
Frequency	Hz	50/60
Type of data definition		ml
Speed (rpm)	min^{-1}	2020
Power input	W	170
Current draw	A	1.35
Max. back pressure	Pa	140
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	50

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}	%	43.1	28.6
02 Measurement category		A	
03 Efficiency category		Static	
04 Efficiency grade N		54.5	40
05 Variable speed drive		Yes	

09 Power input P_{ed}	kW	0.16
09 Air flow q_v	m^3/h	1795
09 Pressure increase p_{fs}	Pa	128
10 Speed (rpm) n	min^{-1}	2060
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-138597

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Technical features

Mass	2.9 kg
Size	300 mm
Surface of rotor	Thick layer passivated
Material of impeller	PP plastic
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"
Max. permissible ambient motor temp. (transp./ storage)	+ 80 °C
Min. permissible ambient motor temp. (transp./storage)	- 40 °C
Mounting position	Any
Condensate discharge holes	None, open rotor
Cooling bore / aperture	Rotor-side
Operation mode	S1
Motor bearing	Ball bearing
Technical features	- Output 10 VDC, max. 10 mA - Tach output - Output limit - Motor current limit - Soft start - Control input 0-10 VDC / PWM - Control interface with SELV potential safely disconnected from the mains - Overvoltage detection - Over-temperature protected electronics / motor - Line undervoltage detection
Touch current acc. IEC 60990 (measuring network Fig. 4, TN system)	<= 3.5 mA
Motor protection	PTC resistor
Cable exit	Variable
Protection class	I (if protective earth is connected by customer)
Product conforming to standard	CE

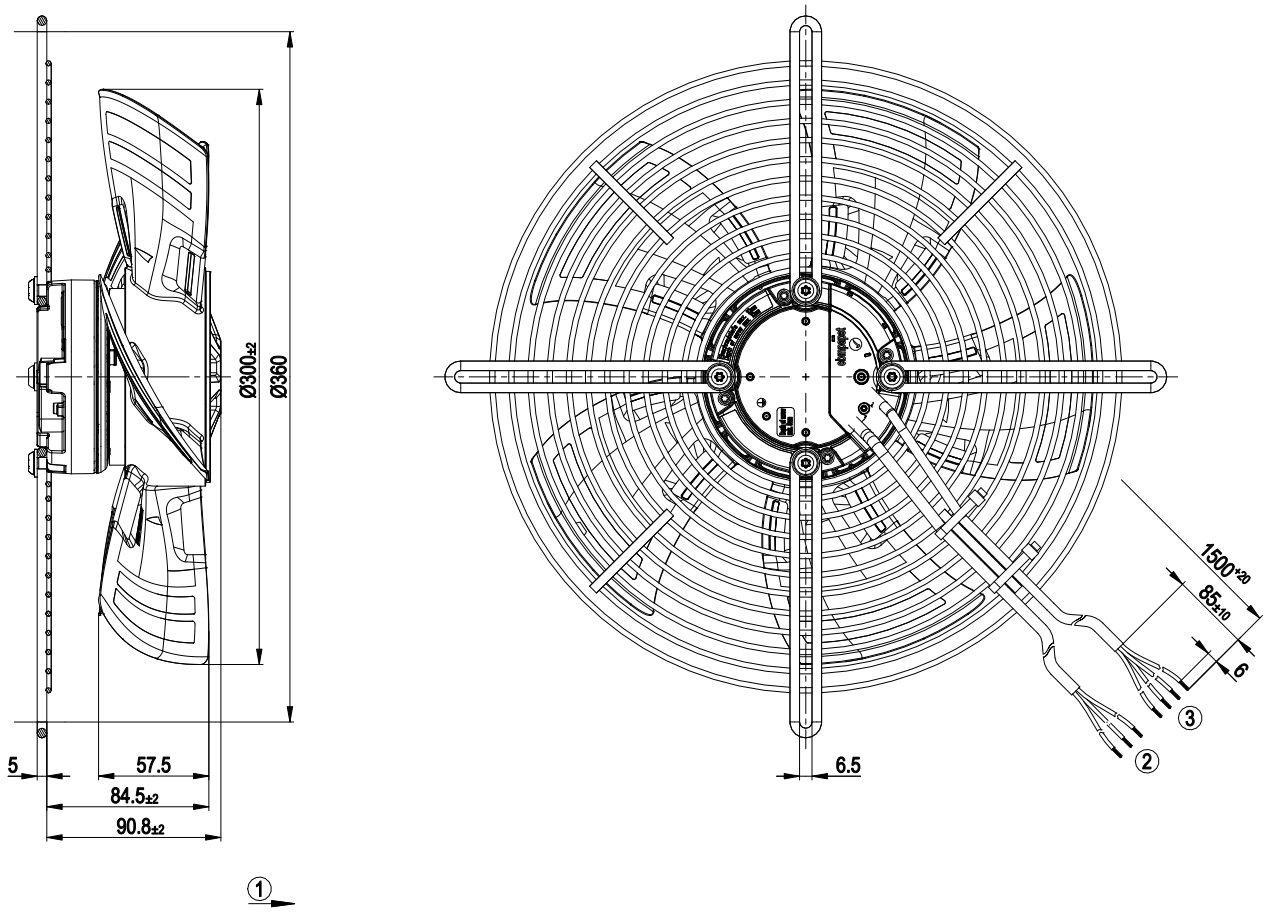
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Product drawing



1	Direction of air flow "A"
2	Connection line PVC AWG20, 3x lead tips crimped
3	Connection line PVC AWG22, 4x lead tips crimped

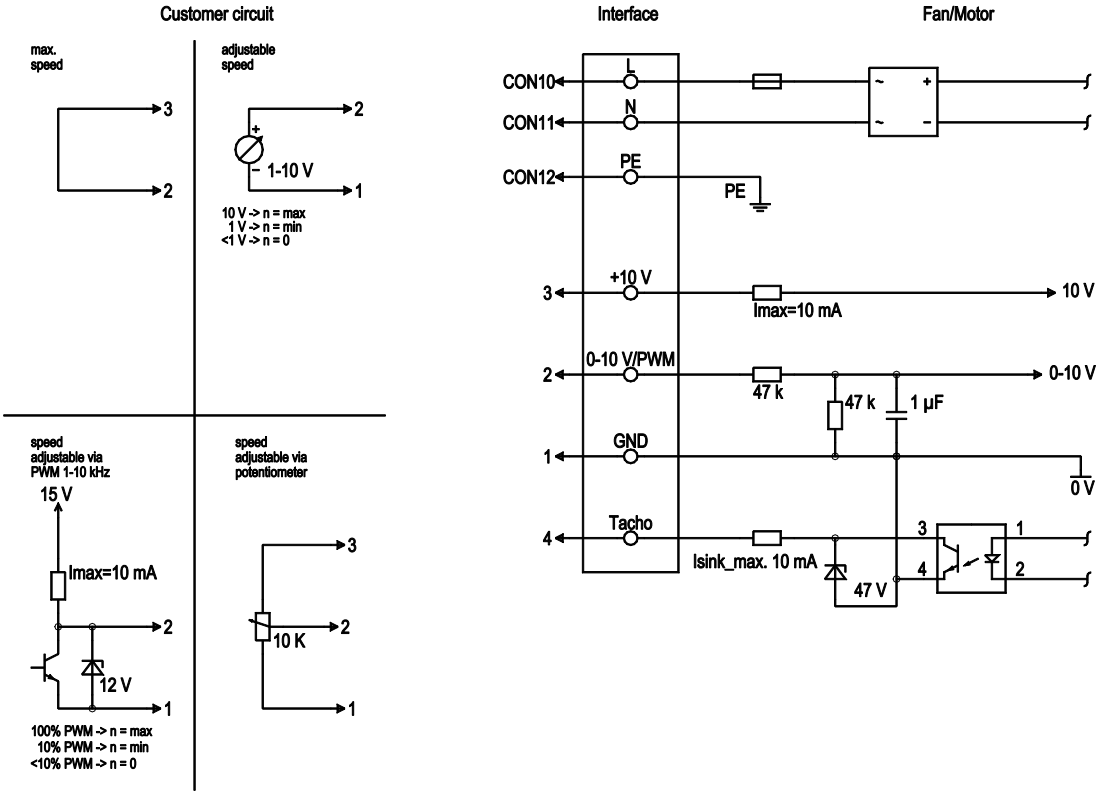
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Connection screen



No.	Conn.	Designation	Colour	Function / assignment
	CON10	L	black	Mains connection, power supply, phase, see type plate for voltage range
	CON11	N	blue	Mains connection, power supply, neutral conductor, see type plate for voltage range
	CON12	PE	green/yellow	Earth connection
	2	0- 10V PWM	yellow	0-10 V/PWM control input, Ri=100 kΩ, SELV
	4	Tach	white	Speed monitoring output, open collector, 1 pulse per revolution, Isink max = 10 mA, SELV
	3	+10 V	red	Fixed voltage output 10 VDC +/-3 %, Imax. 10 mA, short-circuit-proof, power supply for ext. devices (e.g. potentiometer), SELV
	1	GND	blue	Signal ground for control interface, SELV

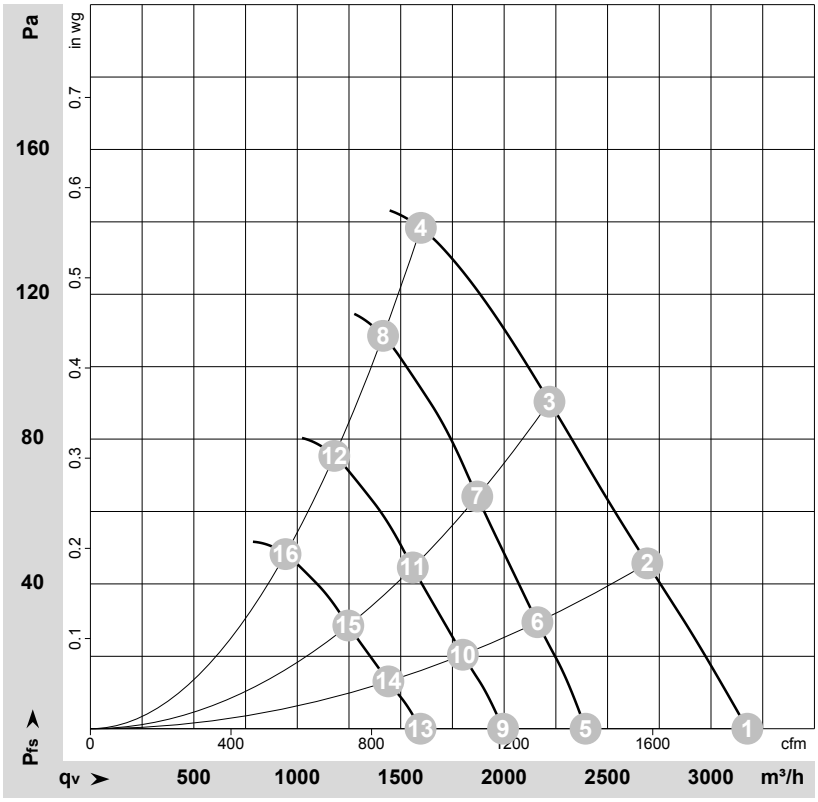
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Charts: Air flow 50 Hz



ρ = 1.178 kg/m³ ± 2 %

Measurement: LU-138597-1

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	2390	170	1.30	64	71	3175	0	1870	0.00
2	230	50	2245	170	1.35	64	71	2690	45	1585	0.18
3	230	50	2135	170	1.35	62	69	2220	90	1305	0.36
4	230	50	2020	170	1.35	62	69	1595	140	940	0.56
5	230	50	1800	72	0.56	57	64	2395	0	1410	0.00
6	230	50	1800	86	0.70	58	65	2160	29	1270	0.12
7	230	50	1800	100	0.80	58	64	1870	64	1100	0.26
8	230	50	1800	116	0.93	59	65	1415	109	835	0.44
9	230	50	1500	42	0.32	52	60	1995	0	1175	0.00
10	230	50	1500	50	0.40	54	61	1800	20	1060	0.08
11	230	50	1500	58	0.47	53	60	1560	44	915	0.18
12	230	50	1500	67	0.54	54	62	1180	76	695	0.31
13	230	50	1200	21	0.16	47	54	1595	0	940	0.00
14	230	50	1200	26	0.21	48	55	1440	13	850	0.05
15	230	50	1200	30	0.24	47	54	1245	28	735	0.11
16	230	50	1200	34	0.27	48	55	945	49	555	0.20

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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