

EC axial fan - HyBlade

sickled blades (S series)

with guard grille for short nozzle

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Nominal data

Type	S3G300-AN02-32	
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	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	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 = $1 + p_g / 100\,000\text{ Pa}$

		Actual	Request 2015
Overall efficiency η_{es}	%	43.1	28.6
Efficiency grade N		54.5	40
Power input P_{ed}	kW	0.16	
Air flow q_v	m ³ /h	1795	
Pressure increase p_{fs}	Pa	128	
Speed n	min ⁻¹	2060	

Data definition with optimum efficiency.

LU-138597

The ErP data is determined using a motor-impeller combination in a standardised measurement configuration.



Technical features

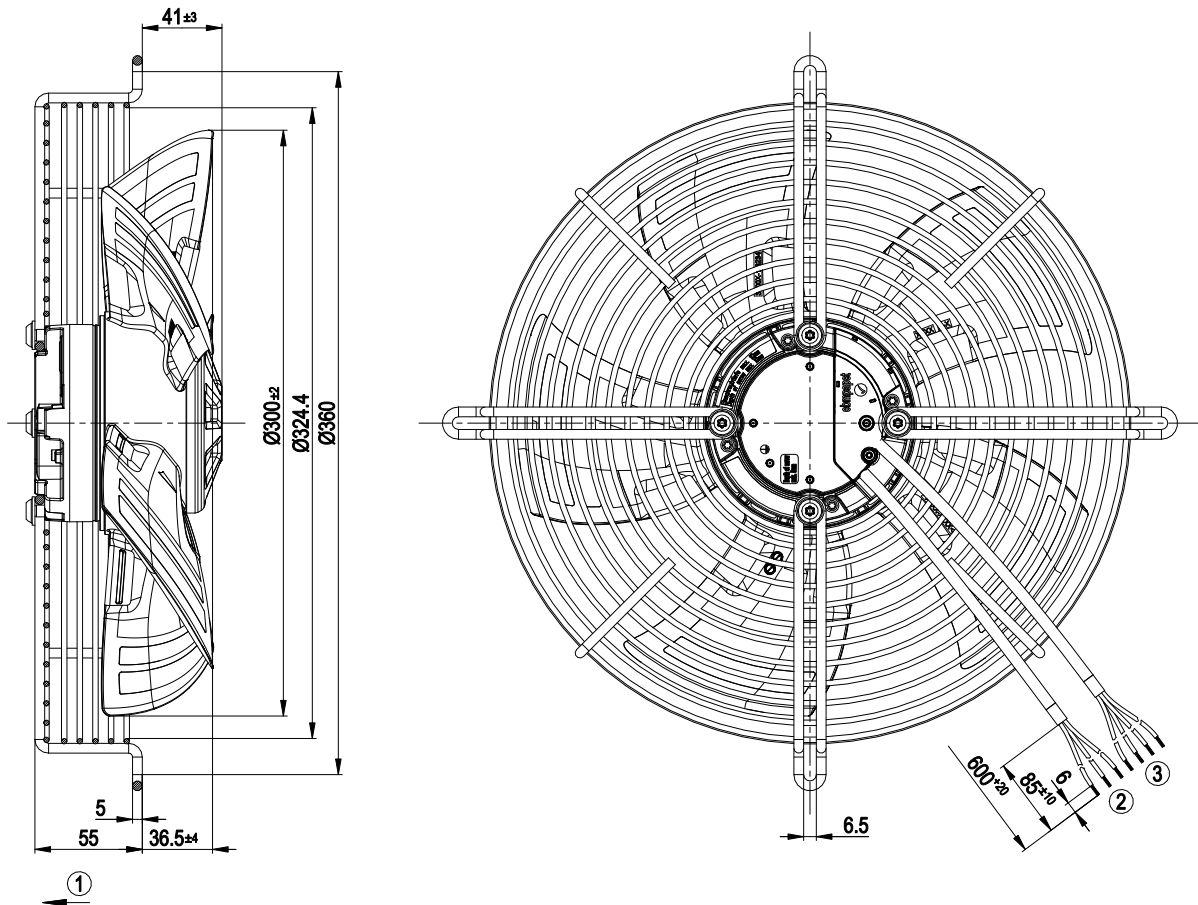
Mass	3 kg
Size	300 mm
Material of terminal box	ABS plastic
Material of blades	Press-fitted sheet steel blank, sprayed with PP plastic
Material of guard grille	Steel, coated in black plastic (RAL9005)
Number of blades	5
Direction of air flow	"V"
Direction of rotation	Counter-clockwise, seen on rotor
Type 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	Any
Condensate discharge holes	None, open rotor
Cooling bore / aperture	Rotor-side
Operation mode	S1
Motor bearing	Ball bearing
Technical features	<ul style="list-style-type: none"> - Output 10 VDC, max. 1.1 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 - Over-temperature protected electronics / motor
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	EN 60335-1; CE
Approval	CCC; C22.2 Nr.77 + CAN/CSA-E60730-1; UL 1004-7 + 60730

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Product drawing



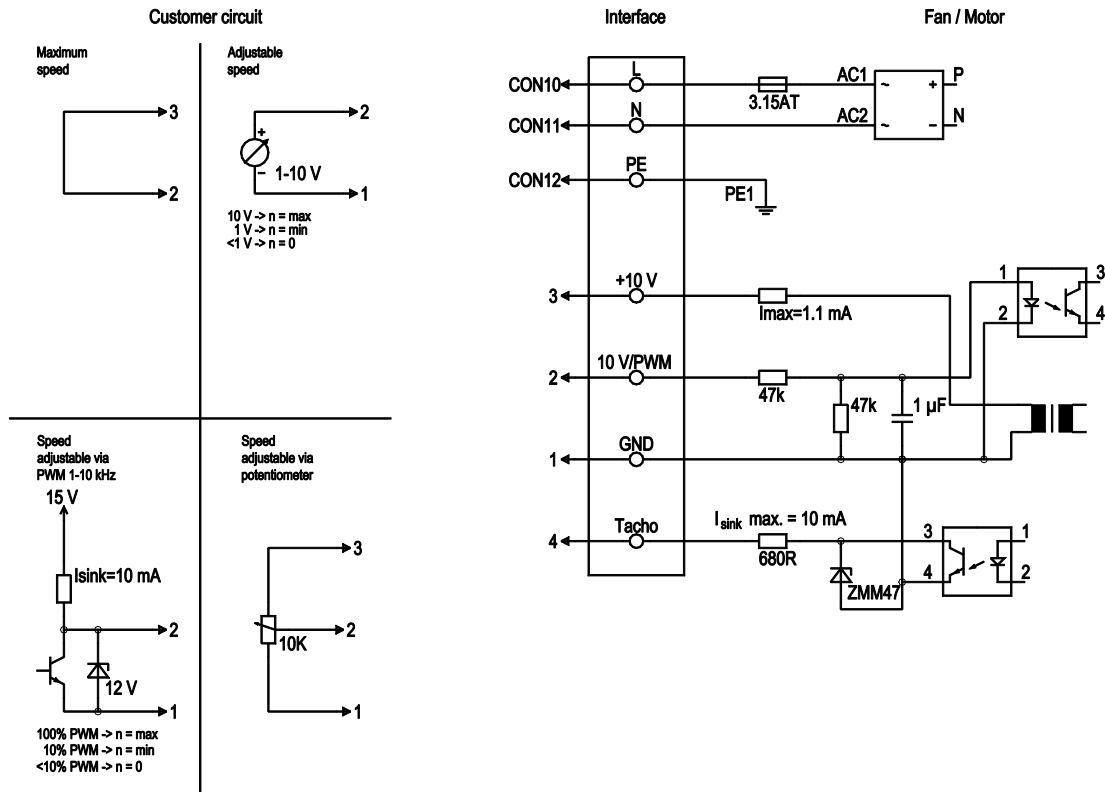
- | | |
|---|--|
| 1 | Direction of air flow "V" |
| 2 | Connection line PVC 3G AWG20, 3x brass lead tips crimped |
| 3 | Connection line PVC 4X AWG22, 4x brass lead tips crimped |



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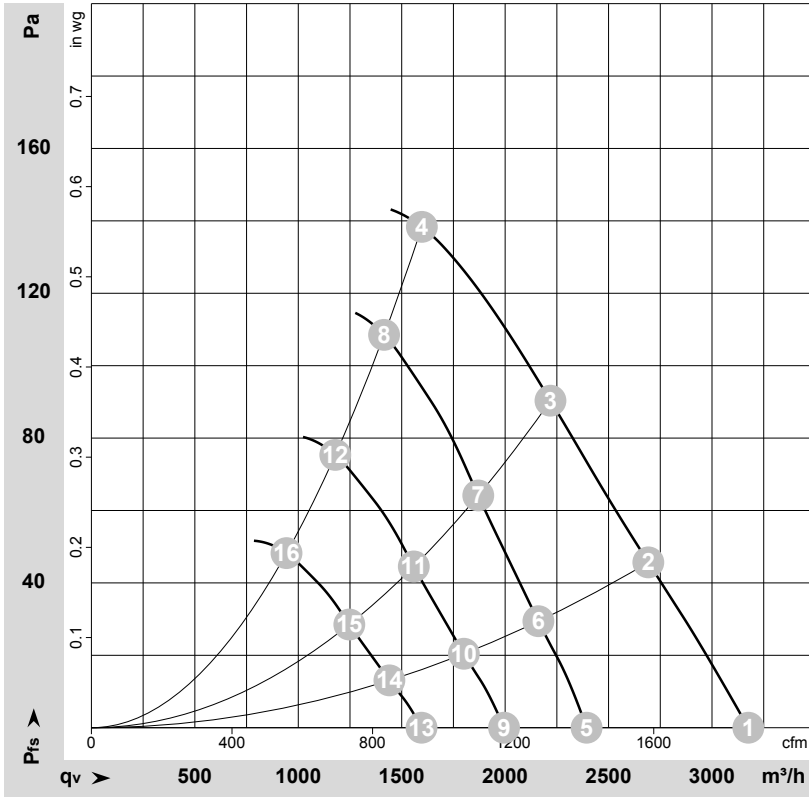
Connection screen



No.	Conn.	Designation	Colour	Function / assignment
	CON10	L	black	Power supply 230 VAC, 50-60 Hz, for voltage range refer to rating plate
	CON11	N	blue	Neutral conductor
	CON12	PE	green/yellow	Protective earth
	1	GND	blue	GND - Connection for control interface
	2	0- 10V PWM	yellow	Control input 0 - 10 V or PWM, electrically isolated
	3	10V/ max 1.1mA	red	Voltage output 10 V / 1.1 mA, electrically isolated, not short-circuit-proof, I _{sink} = 10 mA
	4	Tach	white	Tach output: open collector, 1 pulse per revolution, electrically isolated, I _{sink max} = 10 mA



Charts: Air flow 50 Hz



$\rho = 1,15 \text{ kg/m}^3 \pm 2\%$

Measurement: LU-138597

Air performance measured as per ISO 5801 Installation category A. For detailed information on the measuring set-up, please contact ebmpapst. 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	2390	170	1.30	64	71	3175	0
2	230	50	2245	170	1.35	64	71	2690	45
3	230	50	2135	170	1.35	62	69	2220	90
4	230	50	2020	170	1.35	62	69	1595	140
5	230	50	1800	72	0.56	57	64	2395	0
6	230	50	1800	86	0.70	58	65	2160	29
7	230	50	1800	100	0.80	58	64	1870	64
8	230	50	1800	116	0.93	59	65	1415	109
9	230	50	1500	42	0.32	52	60	1995	0
10	230	50	1500	50	0.40	54	61	1800	20
11	230	50	1500	58	0.47	53	60	1560	44
12	230	50	1500	67	0.54	54	62	1180	76
13	230	50	1200	21	0.16	47	54	1595	0
14	230	50	1200	26	0.21	48	55	1440	13
15	230	50	1200	30	0.24	47	54	1245	28
16	230	50	1200	34	0.27	48	55	945	49

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

