A3G300-AN02-03

EC axial fan - HyBlade®

sickled blades (S series)

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ErP2015 EXCEEDS THE NORM

Nominal data

Type	**A3G300-AN02-03**
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_{fs} / 100 000 Pa

		Actual	Request 2013	Request 2015
Overall efficiency η_{es}	%	43.1	24.6	28.6
Efficiency grade N		54.5	36	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.

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Technical features

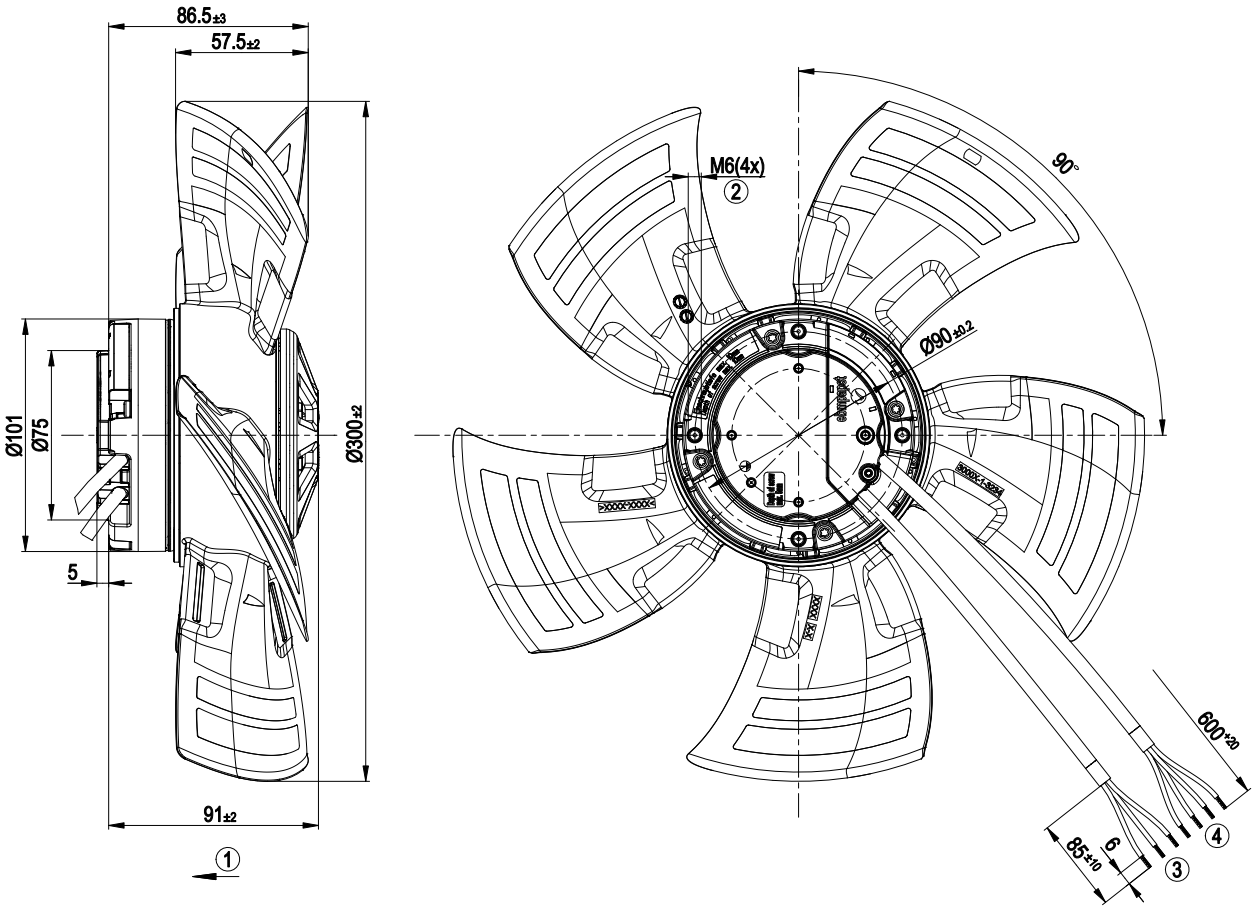
Size	300 mm
Material of impeller	PP plastic
Number of blades	5
Direction of air flow	"V"
Direction of rotation	Counter-clockwise, seen on rotor
Type of protection	IP 54
Insulation class	"B"
Humidity class	F3-1
Max. permissible ambient motor temp. (transp./ storage)	+ 80 °C
Min. permissible ambient motor 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	- Output 10 VDC, max. 1.1 mA - Tach output - Motor current limit - Soft start - Control input 0-10 VDC / PWM - 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	CE
Approval	CCC; C22.2 Nr.77 + CAN/CSA-E60730-1; UL 1004-7 + 60730

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Product drawing



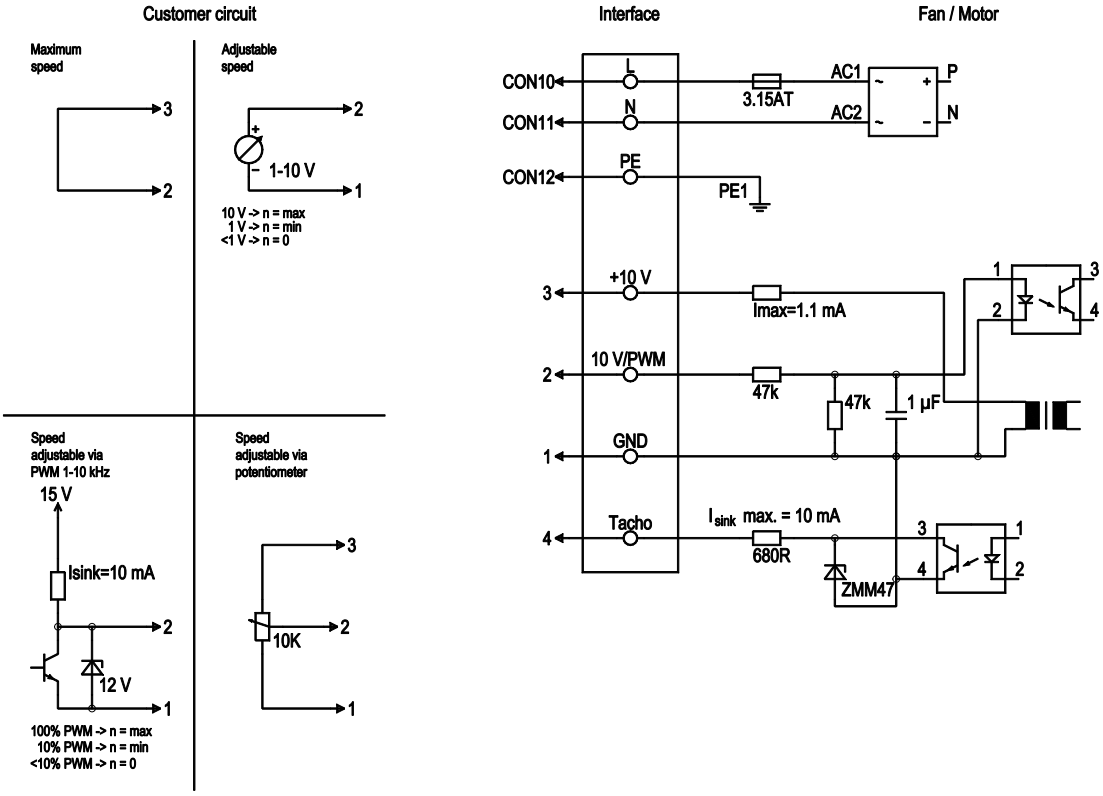
1	Direction of air flow "V"
2	Depth of screw max. 10 mm
3	Connection line PVC 3G AWG20, 3x brass lead tips crimped
4	Connection line PVC 4X AWG22, 4x brass lead tips crimped

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Connection screen



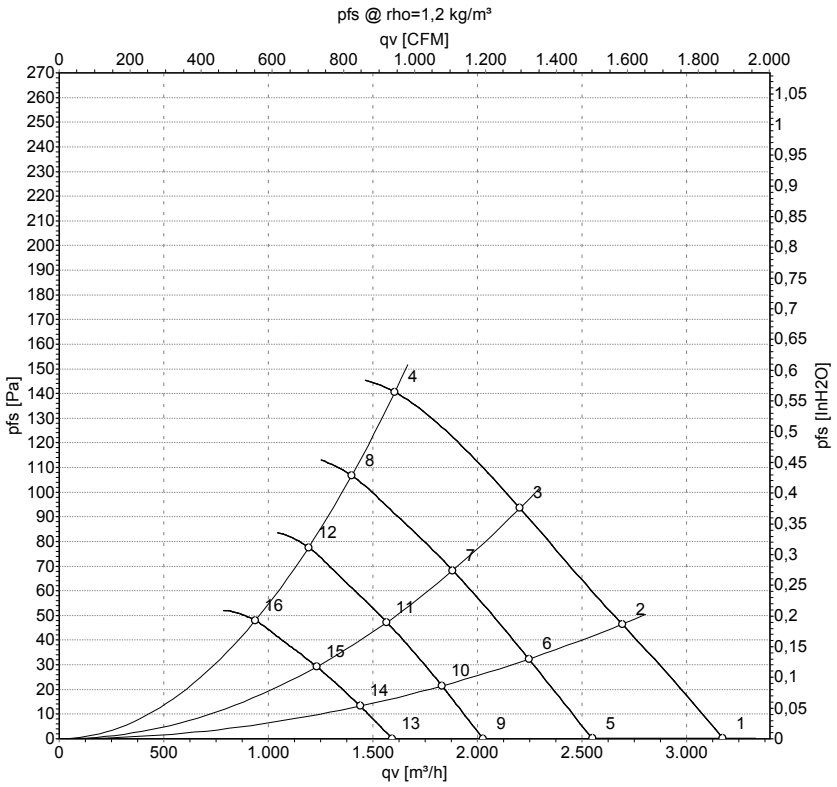
No.	Conn.	Designation	Colour	Function / assignment
	CON10	L	black	Power supply 230 VAC, 50-60 Hz, for voltage range refer to rating plate
	CON11	N	blue	Neutral conductor
	CON12	PE	green/yellow	Protective earth
	1	GND	blue	GND - Connection for control interface
	2	0- 10V PWM	yellow	Control input 0 - 10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

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Charts: Air flow 50 Hz



Measurement: LU-138597
Measurement: LU-138598

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	2385	168	1.30	64	71	3175	0
2	230	50	2245	167	1.35	64	71	2695	45
3	230	50	2135	168	1.34	62	69	2205	95
4	230	50	2020	170	1.35	62	69	1605	140
5	230	50	1910	88	0.75	59	66	2550	0
6	230	50	1865	98	0.81	59	66	2245	32
7	230	50	1825	105	0.86	58	65	1885	68
8	230	50	1780	114	0.93	59	66	1400	108
9	230	50	1520	44	0.38	53	60	2030	0
10	230	50	1520	53	0.44	54	61	1830	22
11	230	50	1520	61	0.50	53	60	1565	47
12	230	50	1520	71	0.58	55	62	1195	78
13	230	50	1195	22	0.18	47	54	1595	0
14	230	50	1195	26	0.21	48	55	1440	13
15	230	50	1195	30	0.24	47	54	1230	29
16	230	50	1195	34	0.28	48	56	940	48

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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