A3G560-AP68-21

EC axial fan - HyBlade

sickled blades (S series)



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Nominal data

Type	**A3G560-AP68-21**
Motor	**M3G112-EA**

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}	1000
Power input	W	400
Current draw	A	1.8
Max. back pressure	Pa	100
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}	%	41.1	31.2
02 Measurement category		A	
03 Efficiency category		Static	
04 Efficiency grade N		49.9	40
05 Variable speed drive		Yes	

09 Power input P_{ed}	kW	0.4
09 Air flow q_v	m^3/h	5245
09 Pressure increase p_{fs}	Pa	102
10 Speed (rpm) n	min^{-1}	995
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-118048

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Technical features

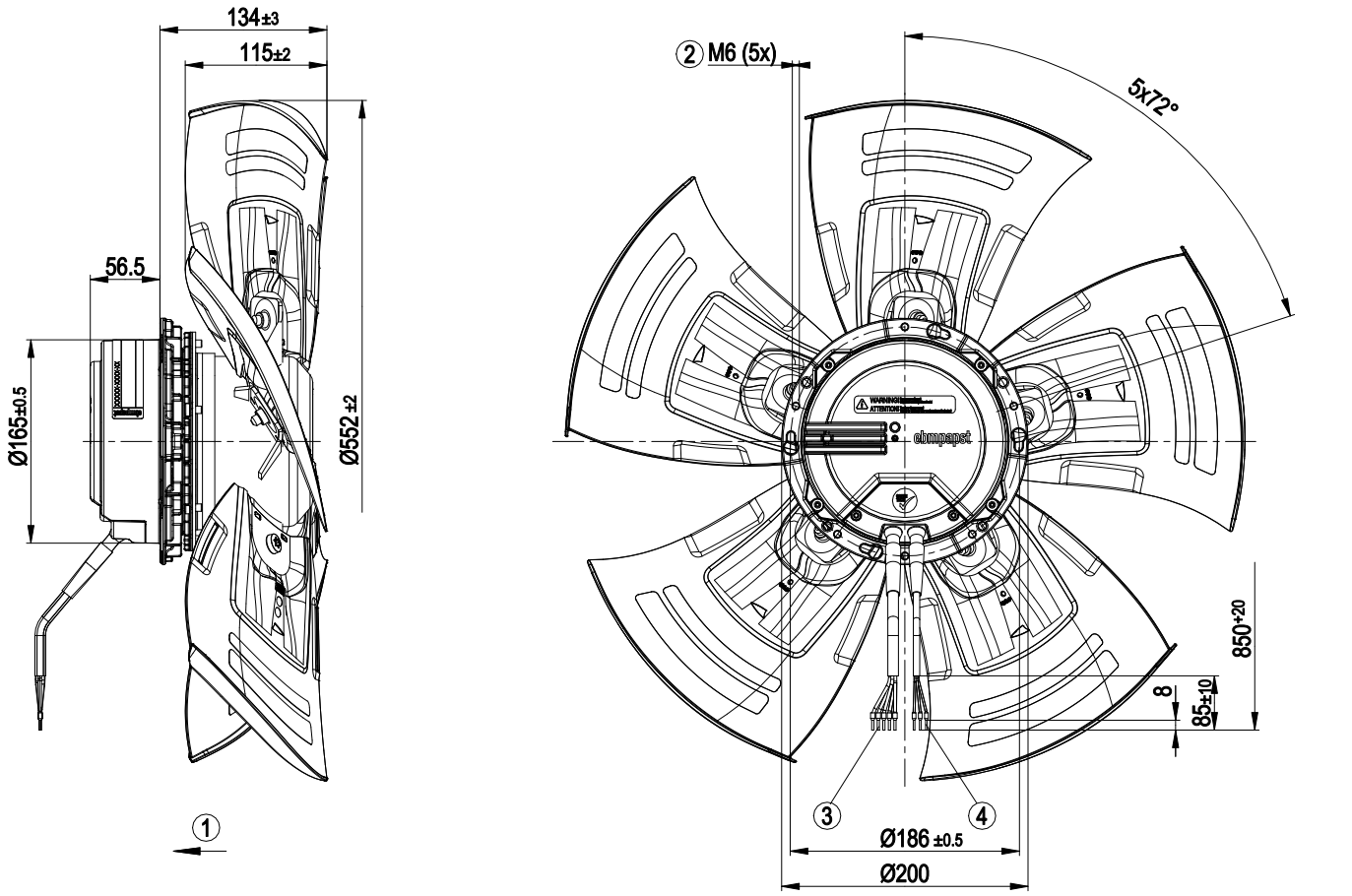
Mass	8.7 kg
Size	560 mm
Surface of rotor	Coated in black
Material of electronics housing	Die-cast aluminium, coated in black
Material of blades	Aluminium sheet insert, sprayed with PP plastic
Number of blades	5
Blade angle	-5°
Direction of air flow	"V"
Direction of rotation	Counter-clockwise, seen on rotor
Type of protection	IP 54
Insulation class	"B"
Humidity (F)/environmental protection class (H)	F4-1
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	- Output 10 VDC, max. 10 mA - Alarm relay - Motor current limit - PFC, active - Soft start - Control input 0-10 VDC Control interface with SELV potential safely disconnected from the mains - Over-temperature protected electronics / motor - Line undervoltage / phase failure detection
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; CE
Approval	CCC; EAC

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Product drawing



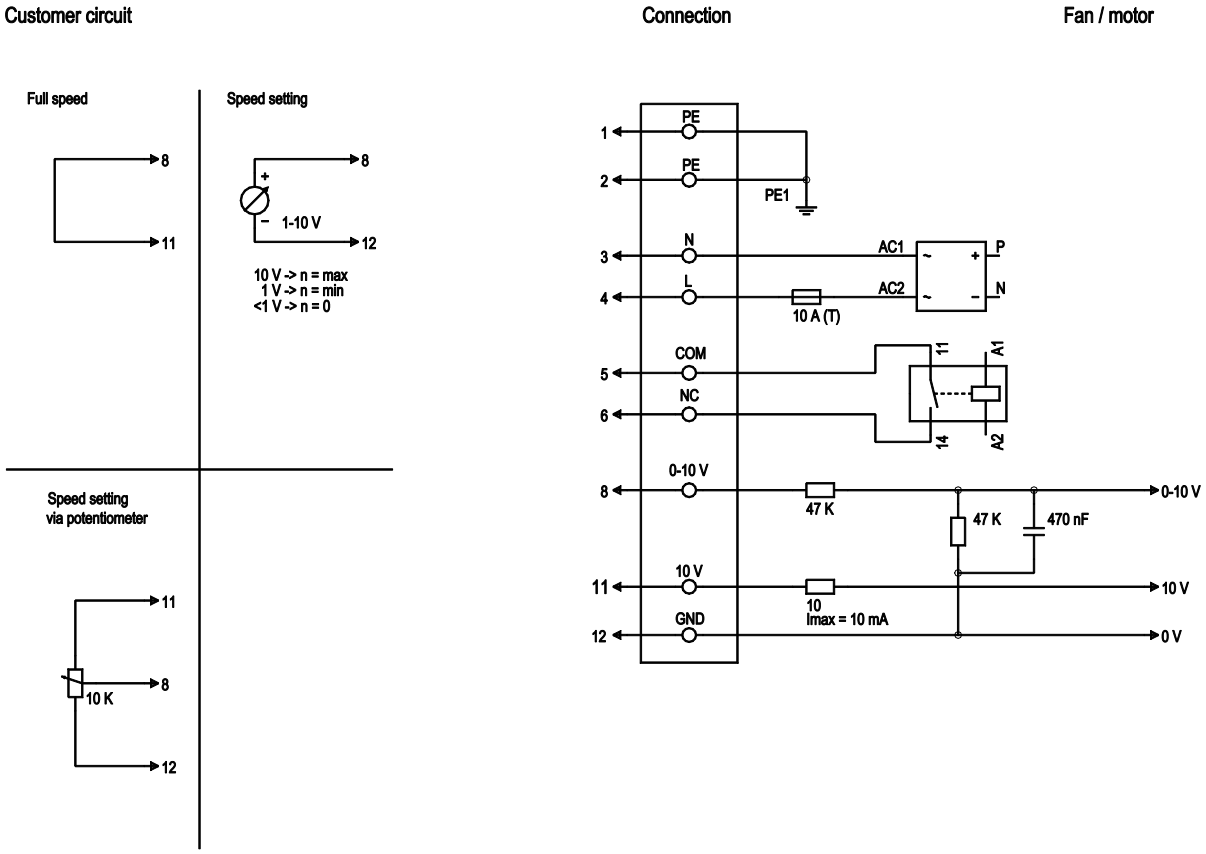
1	Direction of air flow "V"
2	Depth of screw 12 - 16 mm
3	Connection line PVC AWG 18, 5x crimped core-end sleeves
4	Connection line PVC AWG 22, 3x crimped core-end sleeves

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Connection screen



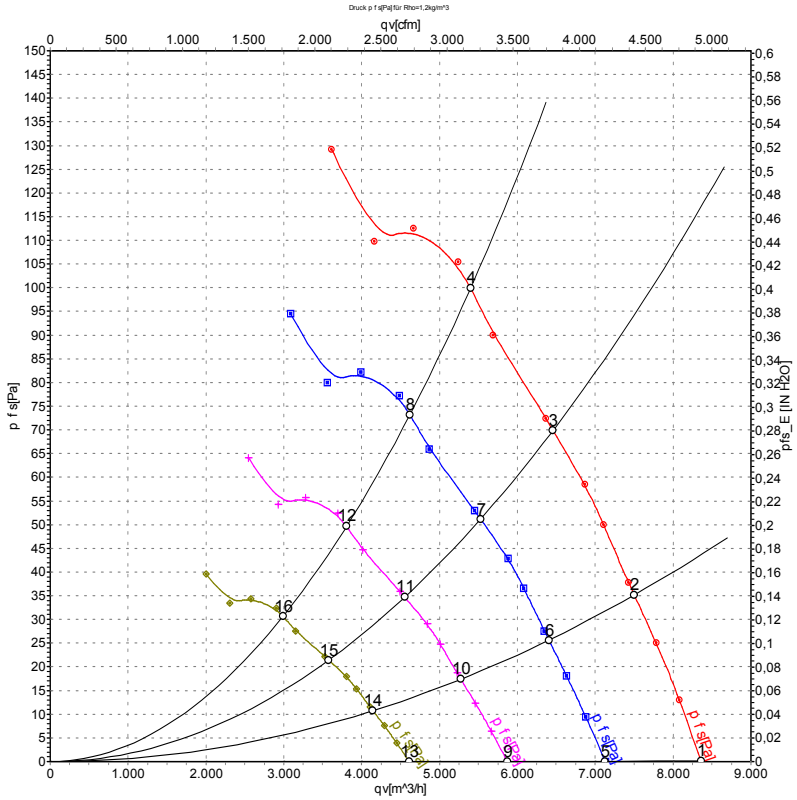
No.	Conn.	Designation	Colour	Function / assignment
1	1,2	PE	green/yellow	Protective earth
1	3	N	blue	Supply voltage, neutral conductor, 50/60 Hz
1	4	L	black	Supply voltage, phase, 50/60 Hz
1	5	COM	white 1	Floating status message contact, break for failure (2 A, max. 250 VAC, min. 10 mA, AC1)
1	6	NC	white 2	Floating status message contact, break for failure
2	8	0-10 V	yellow	Control input, set value 0-10 VDC, impedance 100 kΩ, SELV
2	11	10 VDC	red	Voltage output 10 VDC (+/-3%), max. 10 mA, supply voltage for external devices (e.g. potentiometer), SELV
2	12	GND	blue	Reference mass for control interface, SELV

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Charts: Air flow 50 Hz



Measurement: LU-118048-1

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}	LwA_{out}	q_V	p_{fs}	q_V	p_{fs}
	V	Hz	min^{-1}	W	A	dB(A)	dB(A)	dB(A)	m^3/h	Pa	cfm	inH2O
1	230	50	1000	293	1.29	60	67	67	8360	0	4920	0.00
2	230	50	1000	336	1.48	59	66	66	7500	35	4415	0.14
3	230	50	1000	369	1.61	60	67	66	6460	70	3800	0.28
4	230	50	1000	400	1.80	62	69	68	5400	100	3175	0.40
5	230	50	850	182	0.80	57	64	64	7130	0	4195	0.00
6	230	50	850	209	0.92	56	63	62	6405	26	3770	0.10
7	230	50	850	231	1.01	57	63	62	5530	51	3255	0.20
8	230	50	850	249	1.09	59	65	65	4620	73	2720	0.29
9	230	50	700	102	0.45	53	59	59	5870	0	3455	0.00
10	230	50	700	117	0.51	52	58	58	5275	17	3105	0.07
11	230	50	700	129	0.57	52	59	58	4550	35	2680	0.14
12	230	50	700	139	0.61	55	61	61	3805	50	2240	0.20
13	230	50	550	49	0.22	47	54	54	4610	0	2715	0.00
14	230	50	550	57	0.25	46	53	53	4145	11	2440	0.04
15	230	50	550	63	0.27	47	54	53	3575	21	2105	0.08
16	230	50	550	68	0.30	49	56	55	2990	31	1760	0.12

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 · LwA_{out} = Sound power level outlet side
q_V = Air flow · p_{fs} = Pressure increase

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