A3G630-AQ37-21

EC axial fan - HyBlade

sickled blades (S series)



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Nominal data

Type	**A3G630-AQ37-21**
Motor	**M3G112-GA**

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	720
Current draw	A	3.2
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

		Actual	Request 2015
01 Overall efficiency η_{es}	%	44.1	32.7
02 Measurement category		A	
03 Efficiency category		Static	
04 Efficiency grade N		51.4	40
05 Variable speed drive		Yes	

09 Power input P_{ed}	kW	0.69
09 Air flow q_v	m^3/h	8080
09 Pressure increase p_{fs}	Pa	124
10 Speed (rpm) n	min^{-1}	1005
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-116825

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Technical features

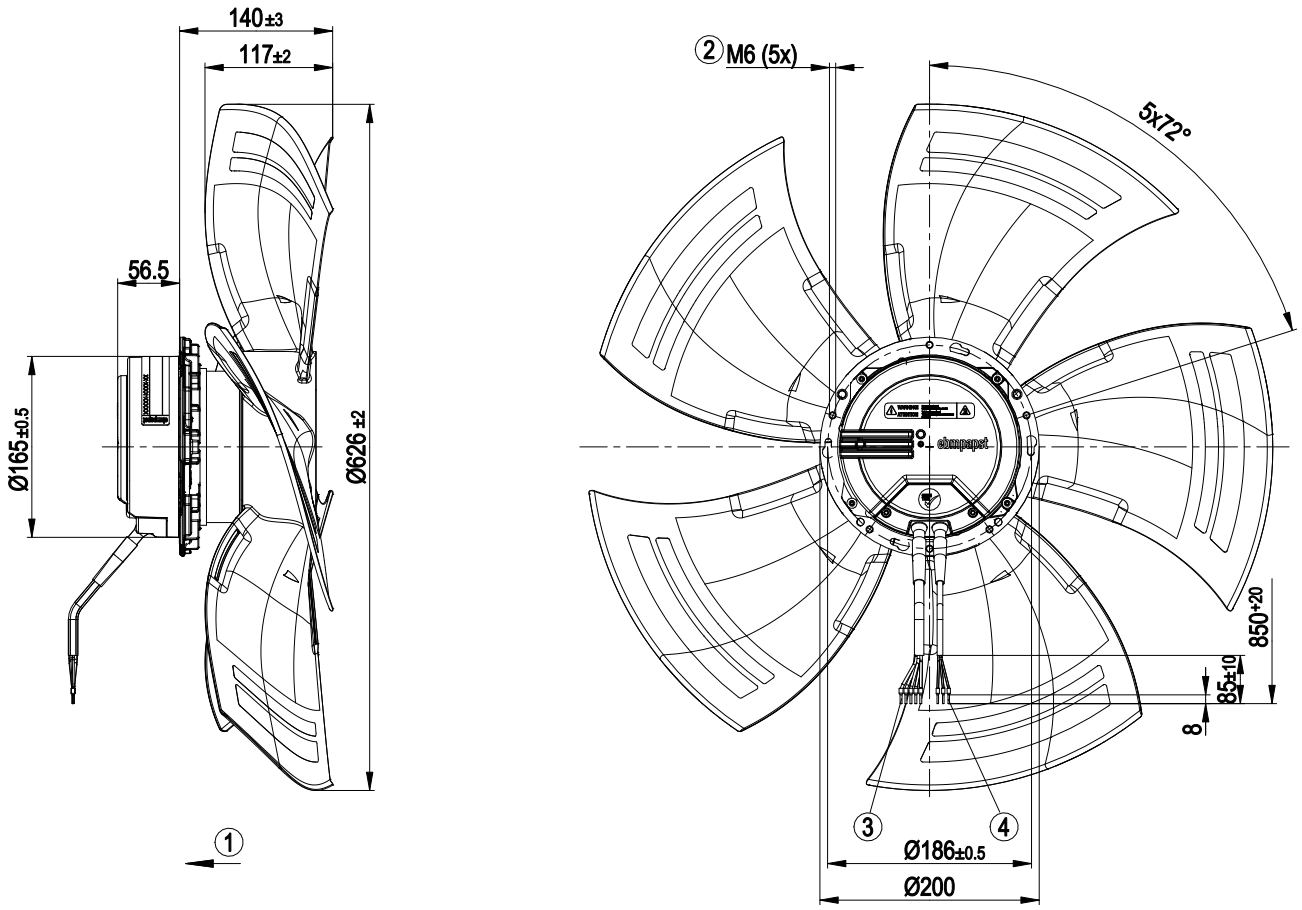
Mass	9.8 kg
Size	630 mm
Surface of rotor	Coated in black
Material of electronics housing	Die-cast aluminium, coated in black
Material of blades	Press-fitted sheet steel blank, sprayed with PP plastic
Number of blades	5
Blade angle	-5°
Direction of air flow	"V"
Direction of rotation	Counter-clockwise, 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 AWG18, 5x crimped core-end sleeves
4	Connection line PVC AWG22, 3x crimped core-end sleeves

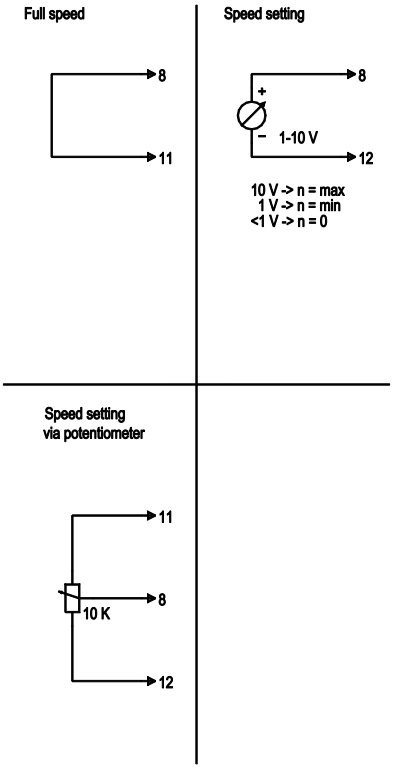
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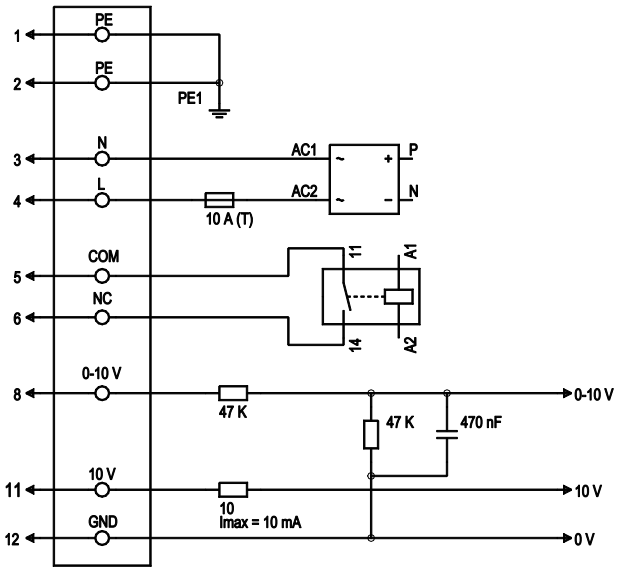
Connection screen

Customer circuit



Connection

Fan / motor



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

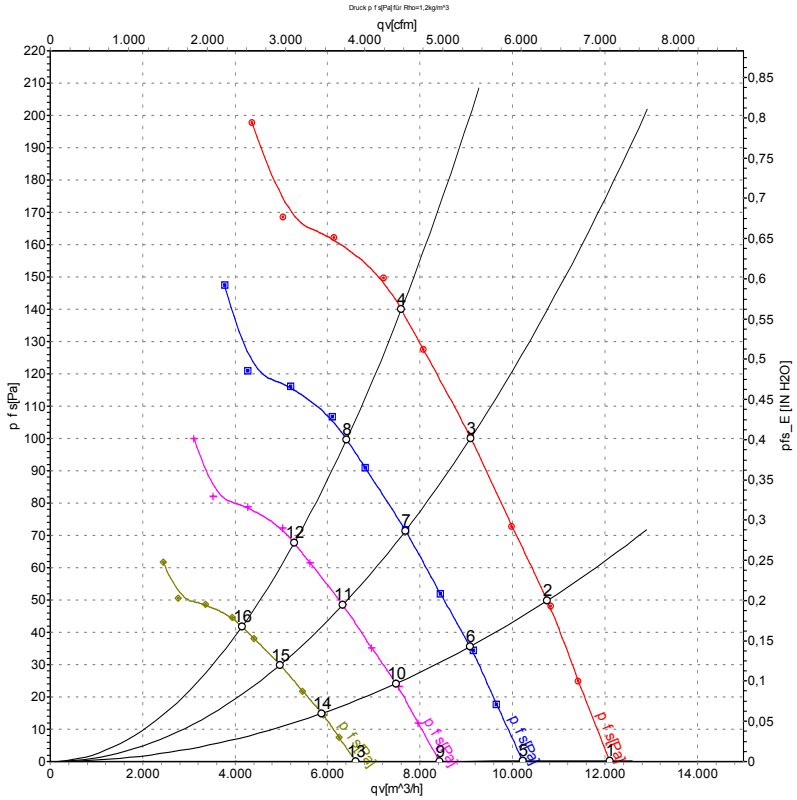
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Charts: Air flow 50 Hz



Measurement: LU-116825-1

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	462	2.11	65	71	71	12100	0	7120	0.00
2	230	50	1000	559	2.54	61	68	67	10750	50	6325	0.20
3	230	50	1000	653	2.94	62	69	68	9100	100	5355	0.40
4	230	50	1000	720	3.20	64	71	70	7595	140	4470	0.56
5	230	50	850	279	1.27	61	67	67	10230	0	6020	0.00
6	230	50	850	337	1.53	58	64	64	9085	36	5345	0.14
7	230	50	850	394	1.77	59	65	64	7685	72	4525	0.29
8	230	50	850	429	1.93	61	67	67	6415	100	3775	0.40
9	230	50	700	156	0.71	57	63	63	8420	0	4955	0.00
10	230	50	700	188	0.86	53	60	60	7480	24	4405	0.10
11	230	50	700	220	0.99	55	61	60	6330	49	3725	0.20
12	230	50	700	240	1.08	57	63	63	5280	68	3110	0.27
13	230	50	550	76	0.35	52	58	58	6615	0	3895	0.00
14	230	50	550	91	0.42	48	55	54	5880	15	3460	0.06
15	230	50	550	107	0.48	49	56	55	4975	30	2925	0.12
16	230	50	550	116	0.52	51	58	57	4150	42	2445	0.17

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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