A3G450-AE16-53

EC axial fan - HyBlade

sickled blades (S series)

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Nominal data

Type	**A3G450-AE16-53**
Motor	**M3G084-DF**

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}	900
Power input	W	115
Current draw	A	0.83
Max. back pressure	Pa	55
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

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Technical features

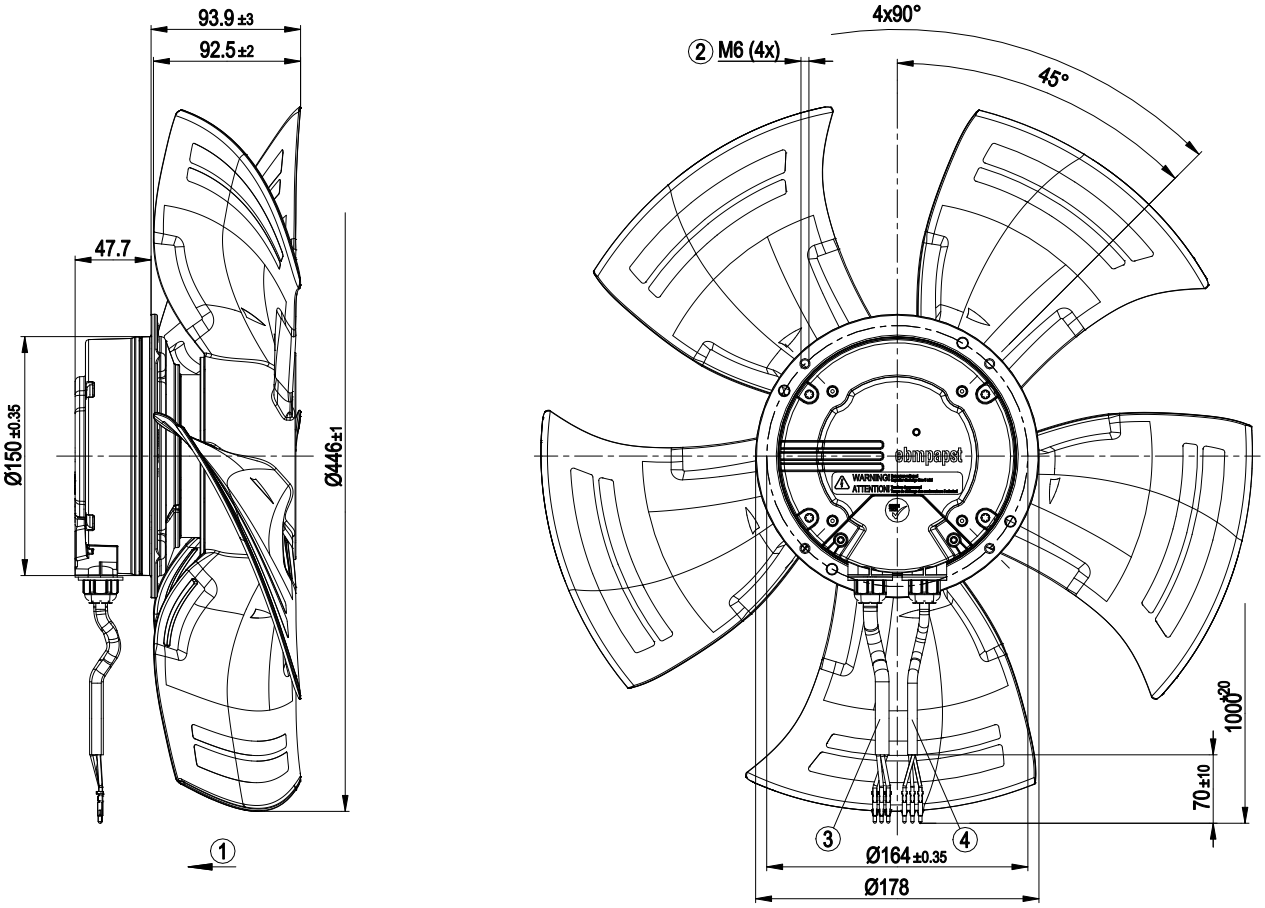
Mass	5 kg
Size	450 mm
Surface of rotor	Coated in black
Material of electronics housing	Die-cast aluminium, coated in black
Material of blades	Press-fitted sheet steel blank, sprayed with PP plastic
Direction of air flow	"V"
Direction of rotation	Counter-clockwise, seen on rotor
Type of protection	IP 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 - Motor current limit - PFC, passive - Soft start - Control input 0-10 VDC / PWM - Control interface with SELV potential safely disconnected from the mains - Over-temperature protected electronics / motor
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 61000-6-3 (household 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 60335-1; CE

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Product drawing



1	Direction of air flow "V"
2	Screw depth max. 10 mm
3	Connection line PVC AWG18, 3x plug pin tyco 350218-1 crimped
4	Connection line PVC AWG22, 3x plug pin tyco 926885-1 crimped

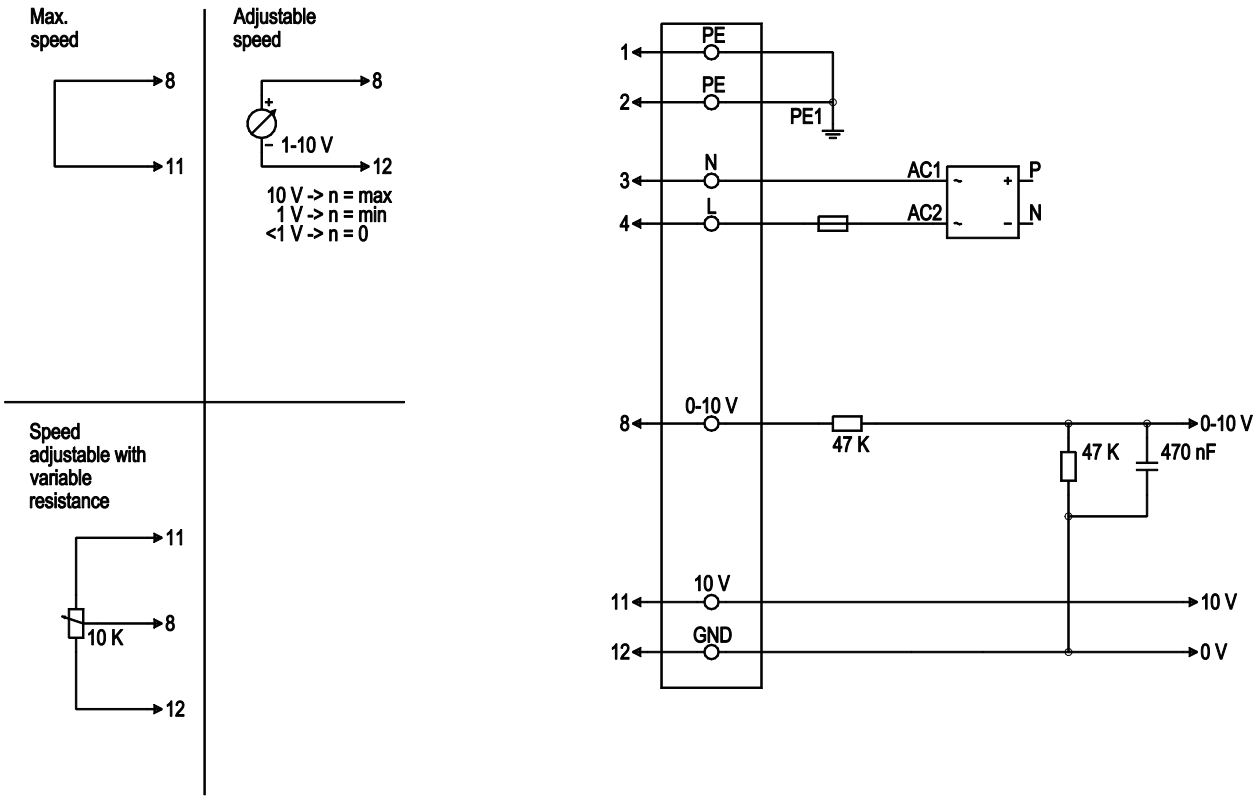
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Connection screen

Customer circuit



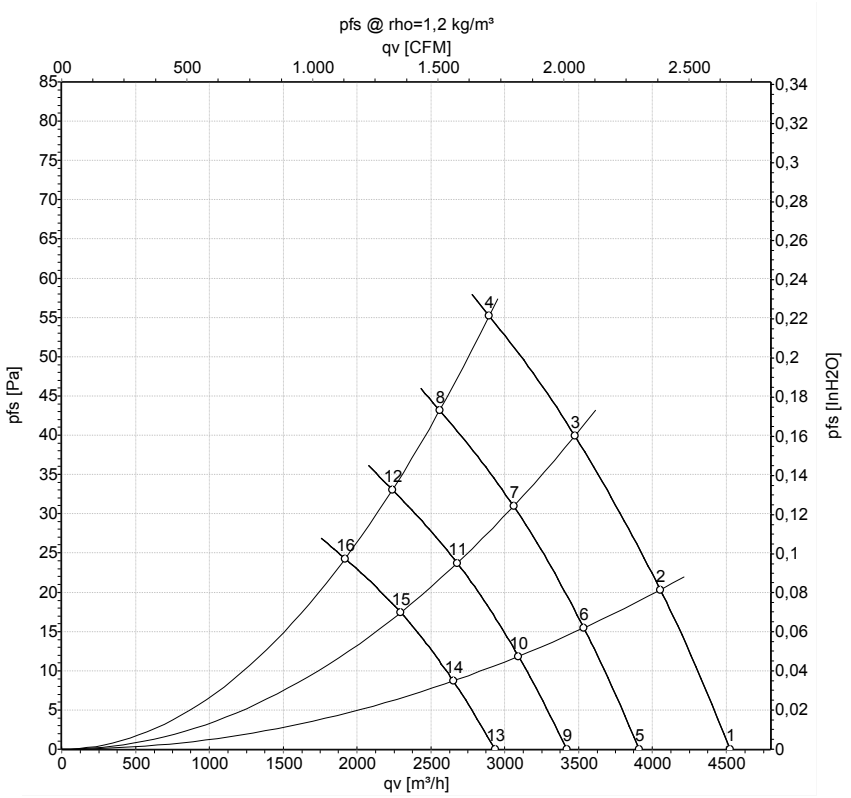
No.	Conn.	Designation	Colour	Function / assignment
1	1,2	PE	green/yellow	Protective earth
1	3	N	blue	Supply voltage, neutral conductor, 50/60 Hz
1	4	L	black	Supply voltage, phase, 50/60 Hz
2	8	0 - 10 V	yellow	Control input, set value 0 - 10 VDC, impedance 100 kOhm, SELV
2	11	10 VDC	red	Voltage output 10 VDC (±3%), max. 10 mA, power supply for external devices (e.g. potentiometers); SELV
2	12	GND	blue	Reference ground for control interface, SELV

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Charts: Air flow 50 Hz



Measurement: LU-162376-1

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	q_V	p_{fs}	q_V	p_{fs}
	V	Hz	min^{-1}	W	A	m^3/h	Pa	cfm	inH2O
1	230	50	925	98	0.72	4530	0	2665	0.00
2	230	50	915	104	0.76	4055	20	2385	0.08
3	230	50	910	111	0.80	3475	40	2045	0.16
4	230	50	900	115	0.83	2895	55	1705	0.22
5	230	50	800	63	0.46	3910	0	2305	0.00
6	230	50	800	69	0.50	3535	15	2080	0.06
7	230	50	800	76	0.55	3060	31	1800	0.12
8	230	50	800	79	0.57	2560	43	1505	0.17
9	230	50	700	42	0.31	3425	0	2015	0.00
10	230	50	700	46	0.34	3095	12	1820	0.05
11	230	50	700	51	0.37	2680	24	1575	0.10
12	230	50	700	53	0.38	2240	33	1320	0.13
13	230	50	600	27	0.20	2935	0	1725	0.00
14	230	50	600	29	0.21	2650	9	1560	0.04
15	230	50	600	32	0.23	2295	17	1350	0.07
16	230	50	600	33	0.24	1920	24	1130	0.10

U = Supply voltage · f = Frequency · n = Speed (rpm) · P_{ed} = Power input · I = Current draw · q_V = Air flow · p_{fs} = Pressure increase

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