A3G450-AR04-10

EC axial fan

sickled blades (S series), single inlet



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Nominal data

Type	**A3G450-AR04-10**
Motor	**M3G074-DF**

Phase		1~
Nominal voltage	VAC	230
Frequency	Hz	50/60
Type of data definition		ml
Speed (rpm)	min^{-1}	900
Power input	W	110
Current draw	A	0.95
Max. back pressure	Pa	40
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

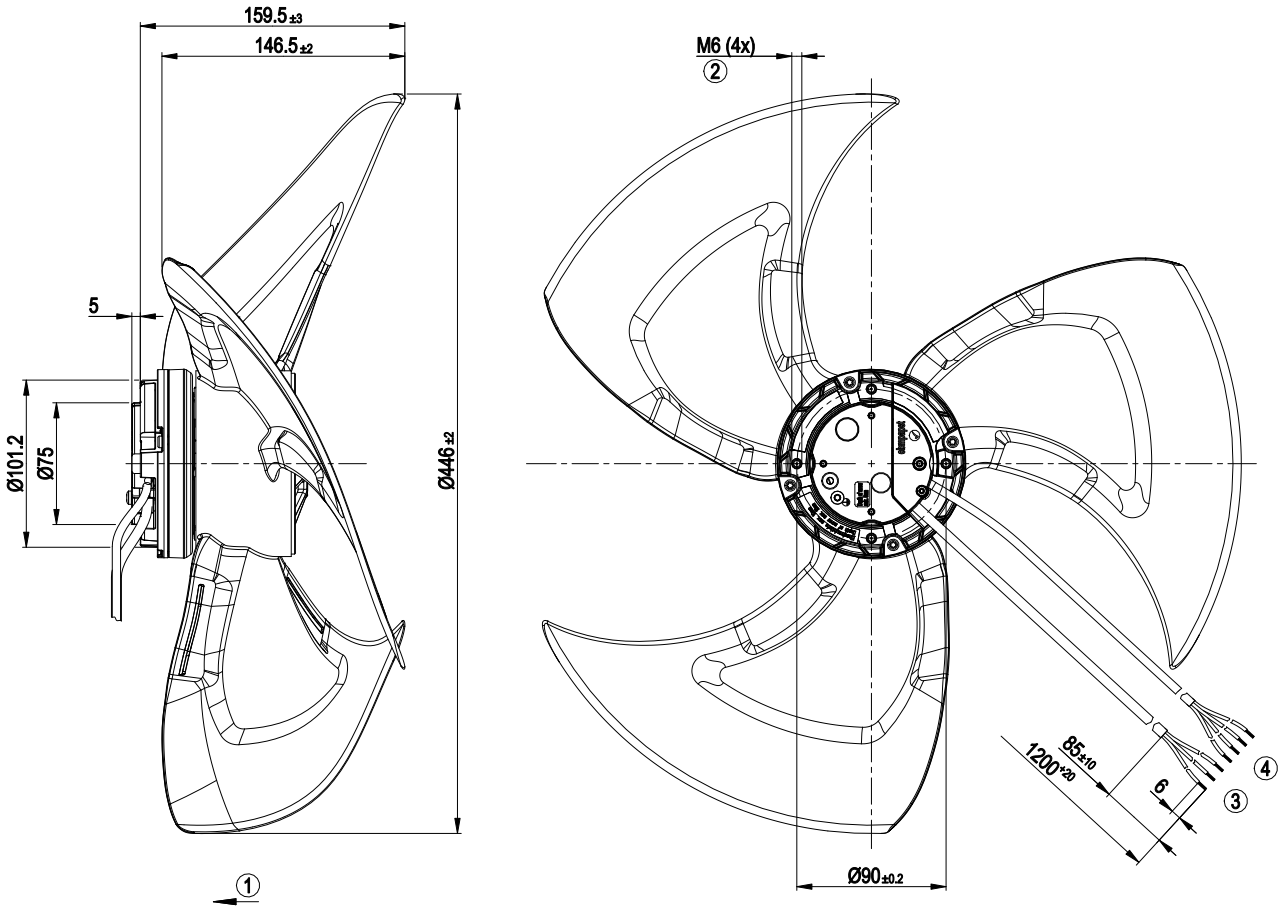
Mass	2.8 kg
Size	450 mm
Surface of rotor	Rotor open, coated in black
Material of electronics housing	Die-cast aluminium
Material of blades	PP plastic
Number of blades	3
Direction of air flow	"V"
Direction of rotation	Counter-clockwise, seen on rotor
Type of protection	IP 54
Insulation class	"B"
Max. 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
Condensate discharge holes	None, open rotor
Cooling bore / aperture	Rotor-side
Operation mode	S1
Motor bearing	Ball bearings made of stainless steel
Technical features	- Output 10 VDC, max. 10 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 - Overvoltage detection - Over-temperature protected electronics / motor - Line undervoltage detection
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

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Product drawing



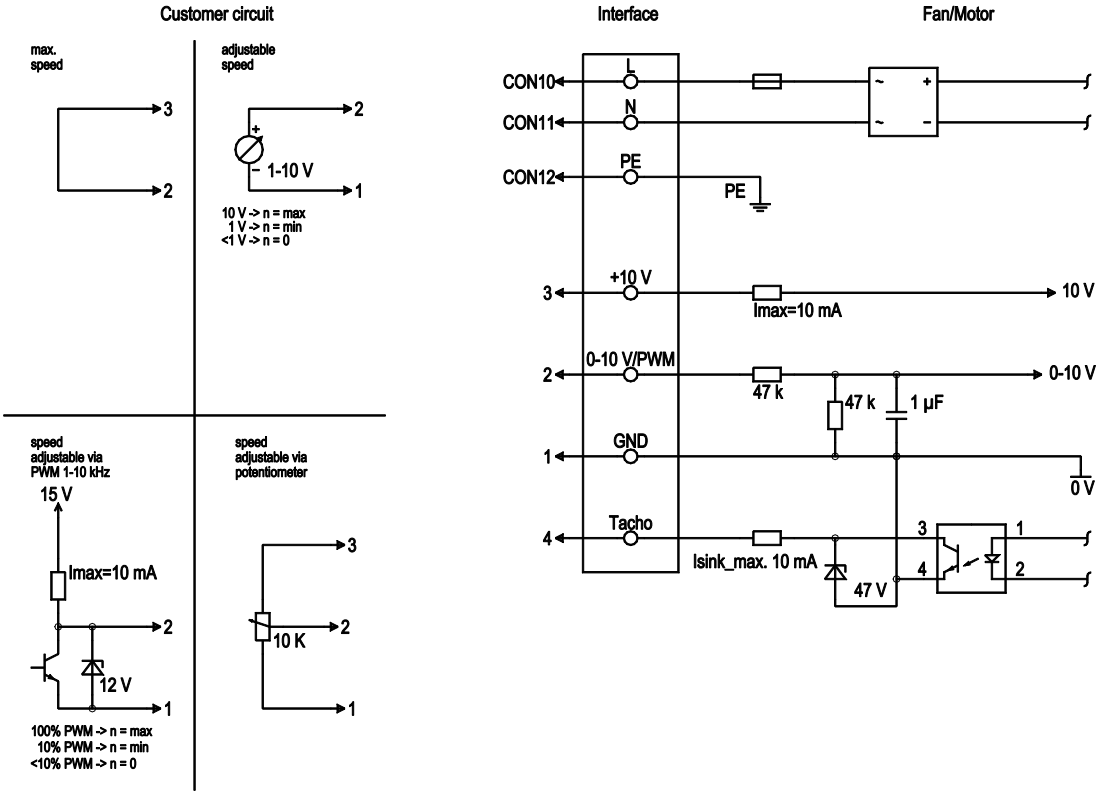
1	Direction of air flow "V"
2	Thread reach max. 10 mm
3	Connection line PVC 3G AWG20, 3x lead tips crimped
4	Connection line PVC 4x AWG22, 4x lead tips crimped

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Connection screen



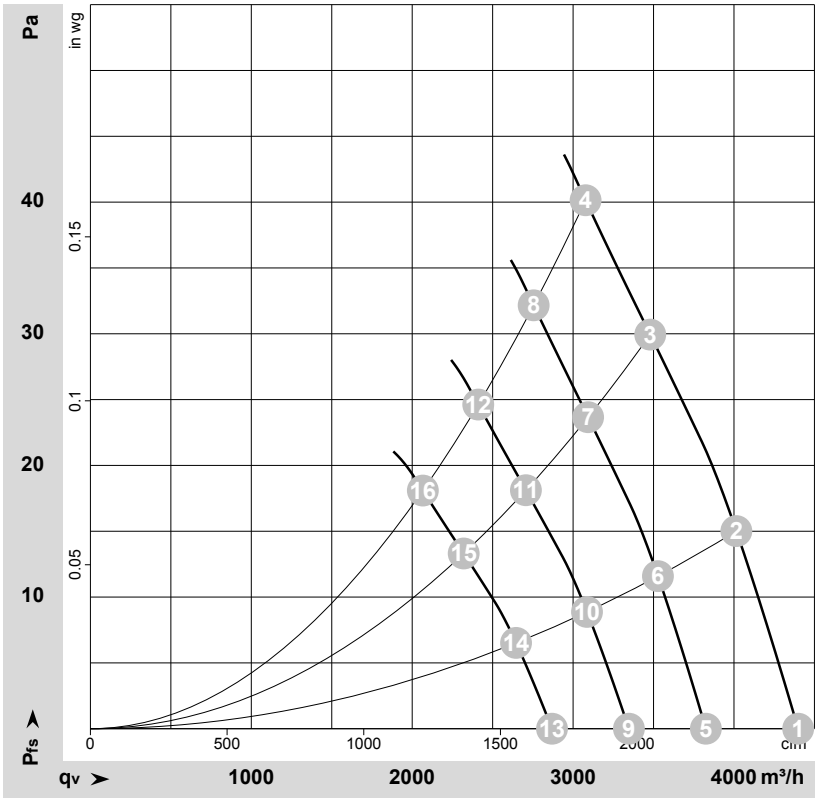
No.	Conn.	Designation	Colour	Function / assignment
	CON10	L	black	Mains connection, power supply, phase, see type plate for voltage range
	CON11	N	blue	Mains connection, power supply, neutral conductor, see type plate for voltage range
	CON12	PE	green/yellow	Earth connection
	2	0- 10V PWM	yellow	0-10 V/PWM control input, Ri=100 kΩ, SELV
	4	Tach	white	Speed monitoring output, open collector, 1 pulse per revolution, Isink max = 10 mA, SELV
	3	+10 V	red	Fixed voltage output 10 VDC +/-3 %, Imax. 10 mA, short-circuit-proof, power supply for ext. devices (e.g. potentiometer), SELV
	1	GND	blue	Signal ground for control interface, SELV

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Charts: Air flow 50 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-172515-1

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	920	99	0.83	4400	0	2590	0.00
2	230	50	910	103	0.87	4015	15	2365	0.06
3	230	50	900	108	0.90	3480	30	2050	0.12
4	230	50	900	110	0.95	3080	40	1810	0.16
5	230	50	800	65	0.55	3825	0	2250	0.00
6	230	50	800	70	0.59	3525	12	2075	0.05
7	230	50	800	76	0.64	3095	24	1820	0.10
8	230	50	800	79	0.67	2755	32	1620	0.13
9	230	50	700	43	0.37	3345	0	1970	0.00
10	230	50	700	47	0.39	3085	9	1815	0.04
11	230	50	700	51	0.43	2705	18	1595	0.07
12	230	50	700	53	0.45	2410	25	1420	0.10
13	230	50	600	27	0.23	2870	0	1690	0.00
14	230	50	600	29	0.25	2645	7	1555	0.03
15	230	50	600	32	0.27	2320	13	1365	0.05
16	230	50	600	34	0.28	2065	18	1215	0.07

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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