A3G450-AN04-04

EC axial fan - HyBlade

sickle-shaped blades (S series)

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Nominal data

Type	**A3G450-AN04-04**
Motor	**M3G074-CF**

Phase		1~
Nominal voltage	VAC	230
Nominal voltage range	VAC	200 .. 240
Frequency	Hz	50/60
Method of obtaining data		ml
Speed (rpm)	min^{-1}	870
Power consumption	W	122
Current draw	A	1.0
Max. back pressure	Pa	57
Max. back pressure	inH2O	0.23
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	60

ml = Max. load · me = Max. efficiency · fa = Free air · cs = Customer specification · ce = Customer equipment
Subject to change

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Technical description

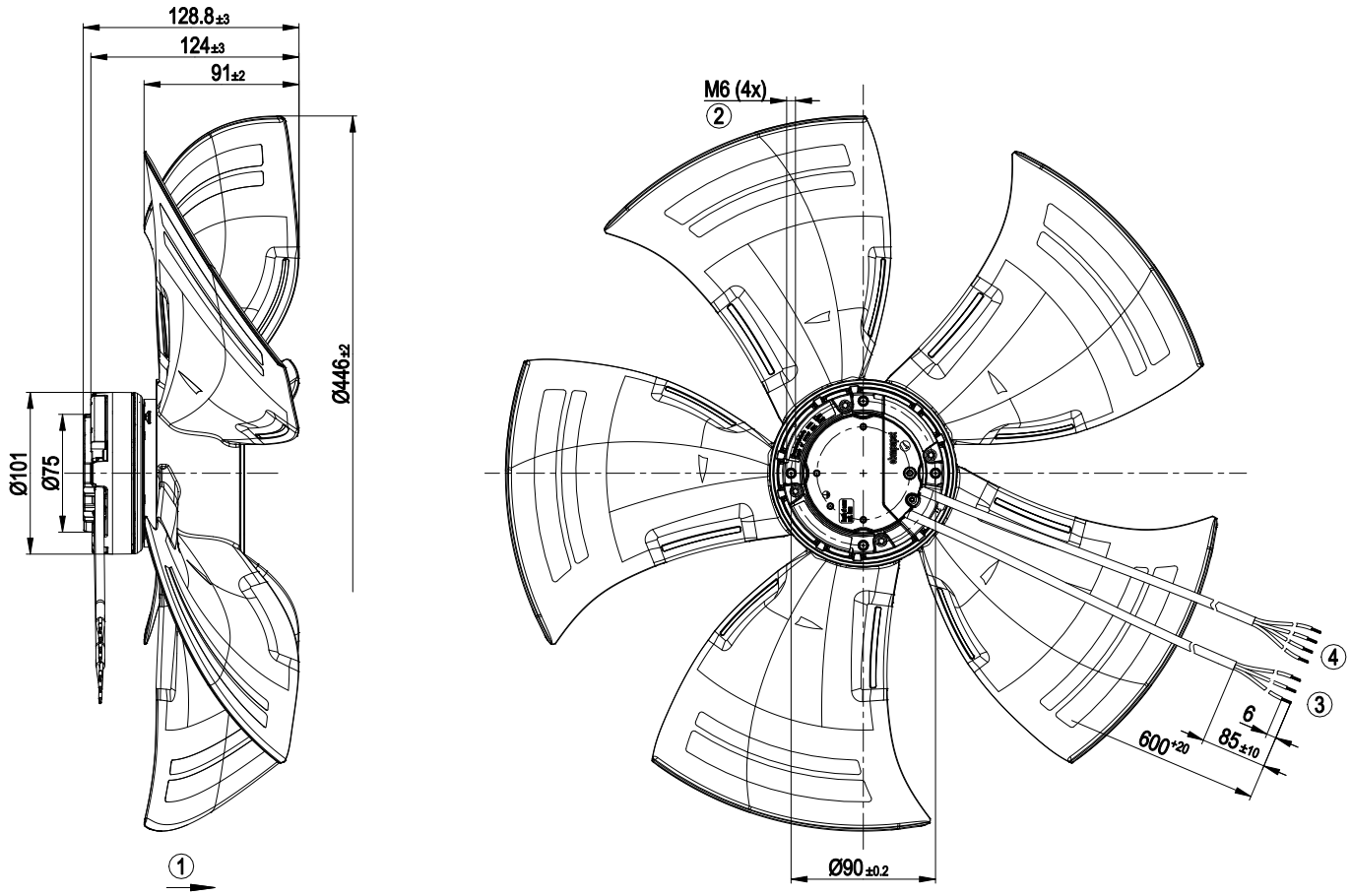
Weight	2.3 kg
Fan size	450 mm
Rotor surface	Thick-film passivated
Blade material	PP plastic
Number of blades	5
Airflow direction	"A"
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	IP54
Insulation class	"B"
Moisture (F) / Environmental (H) protection class	F3-1
Max. permitted ambient temp. for motor (transport/storage)	+ 80 °C
Installation position	Any
Cooling hole/opening	On rotor side
Mode	S1
Motor bearing	Ball bearing
Technical features	- Output 10 VDC, max. 10 mA - Tach output - Power limiter - Motor current limitation - Soft start - Control input 0-10 VDC / PWM - Control interface with SELV potential safely disconnected from the mains - Overvoltage detection - Thermal overload protection for electronics/motor - Line undervoltage detection
Touch current according to IEC 60990 (measuring circuit Fig. 4, TN system)	<= 3.5 mA
Motor protection	PTC thermistor
With cable	Variable
Protection class	I (with customer connection of protective earth)
Conformity with standards	EN 60335-1; CE

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Product drawing



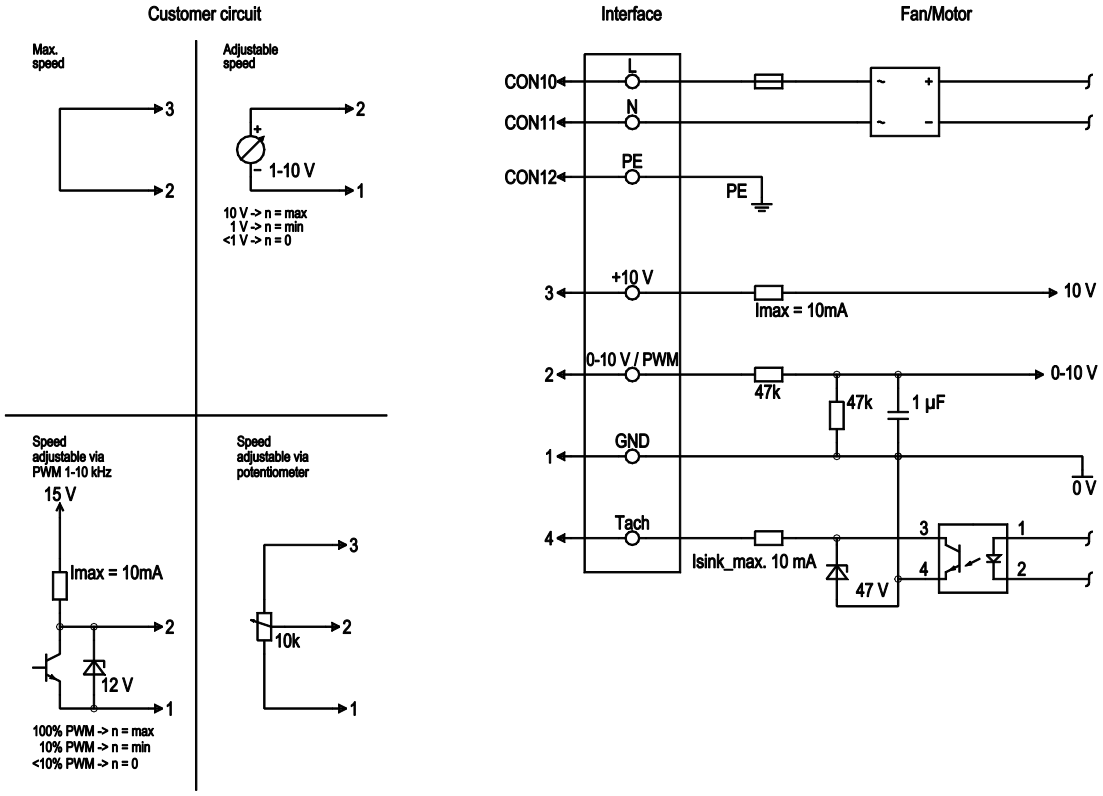
1	Direction of air flow "A"
2	Max. clearance for screw 10 mm
3	Cable PVC AWG20, 3x crimped splices
4	Cable PVC AWG22, 4x crimped splices

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Connection diagram



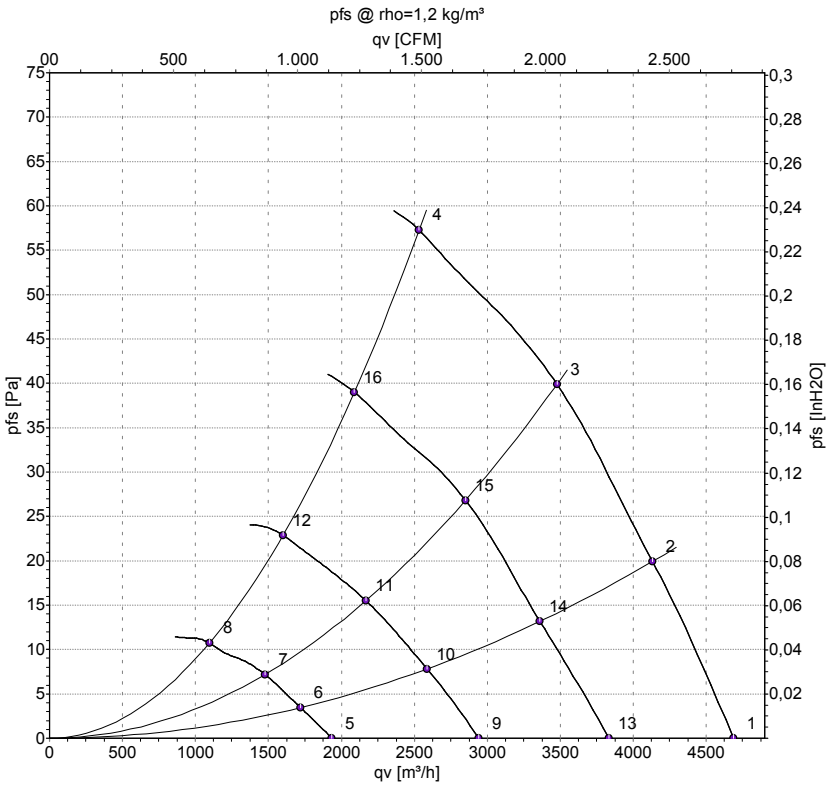
No.	Conn.	Designation	Color	Function/assignment
	CON10	L	black	Supply connection, power supply, phase, see nameplate for voltage range
	CON11	N	blue	Supply connection, power supply, neutral conductor, see nameplate for voltage range
	CON12	PE	green/yellow	Ground connection
	2	0- 10V PWM	yellow	0-10 V / PWM control input, Ri=100 kΩ, SELV
	4	Tach	white	Tach 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. pot), SELV
	1	GND	blue	Reference ground for control interface, SELV

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Curves: Air performance 50 Hz



Measurement: LU-158669-1
Measurement: LU-138633-1
Measurement: LU-138626-1
Measurement: LU-138619-1

Air performance measured according to ISO 5801 installation category A. For detailed information on the measurement setup, contact ebm-papst. Intake sound level: Sound power level according to ISO 13347 / sound pressure level measured at 1 m distance from fan axis. The values given are valid under the specified measuring conditions and may vary due to conditions of installation. For deviations from the standard configuration, the parameters have to be checked on the installed unit.

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	930	101	0.85	4685	0	2760	0.00
2	230	50	910	109	0.91	4130	20	2430	0.08
3	230	50	895	114	0.96	3475	40	2045	0.16
4	230	50	870	122	1.00	2530	57	1490	0.23
5	230	50	395	10.0	0.11	1935	0	1140	0.00
6	230	50	390	11	0.12	1720	3	1010	0.01
7	230	50	385	12	0.12	1475	7	870	0.03
8	230	50	380	12	0.12	1095	11	645	0.04
9	230	50	580	27	0.26	2940	0	1730	0.00
10	230	50	575	29	0.29	2585	8	1525	0.03
11	230	50	565	32	0.30	2170	16	1275	0.06
12	230	50	555	33	0.31	1600	23	940	0.09
13	230	50	760	56	0.50	3835	0	2255	0.00
14	230	50	745	61	0.55	3360	13	1975	0.05
15	230	50	735	64	0.58	2850	27	1675	0.11
16	230	50	720	69	0.62	2090	39	1230	0.16

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

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