A3G450-AO02-01

EC axial fan - HyBlade

sickled blades (S series)

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Nominal data

Type	**A3G450-AO02-01**
Motor	**M3G074-DF**

Phase		1~
Nominal voltage	VAC	230
Nominal voltage range	VAC	200 .. 240
Frequency	Hz	50/60
Type of data definition		ml
Speed (rpm)	min^{-1}	980
Power input	W	163
Current draw	A	1.34
Max. back pressure	Pa	74
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}	%	39.8	28.6
02 Measurement category		A	
03 Efficiency category		Static	
04 Efficiency grade N		51.2	40
05 Variable speed drive		Yes	

09 Power input P_{ed}	kW	0.16
09 Air flow q_v	m^3/h	3505
09 Pressure increase p_{fs}	Pa	61
10 Speed (rpm) n	min^{-1}	1000
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-138244

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Technical features

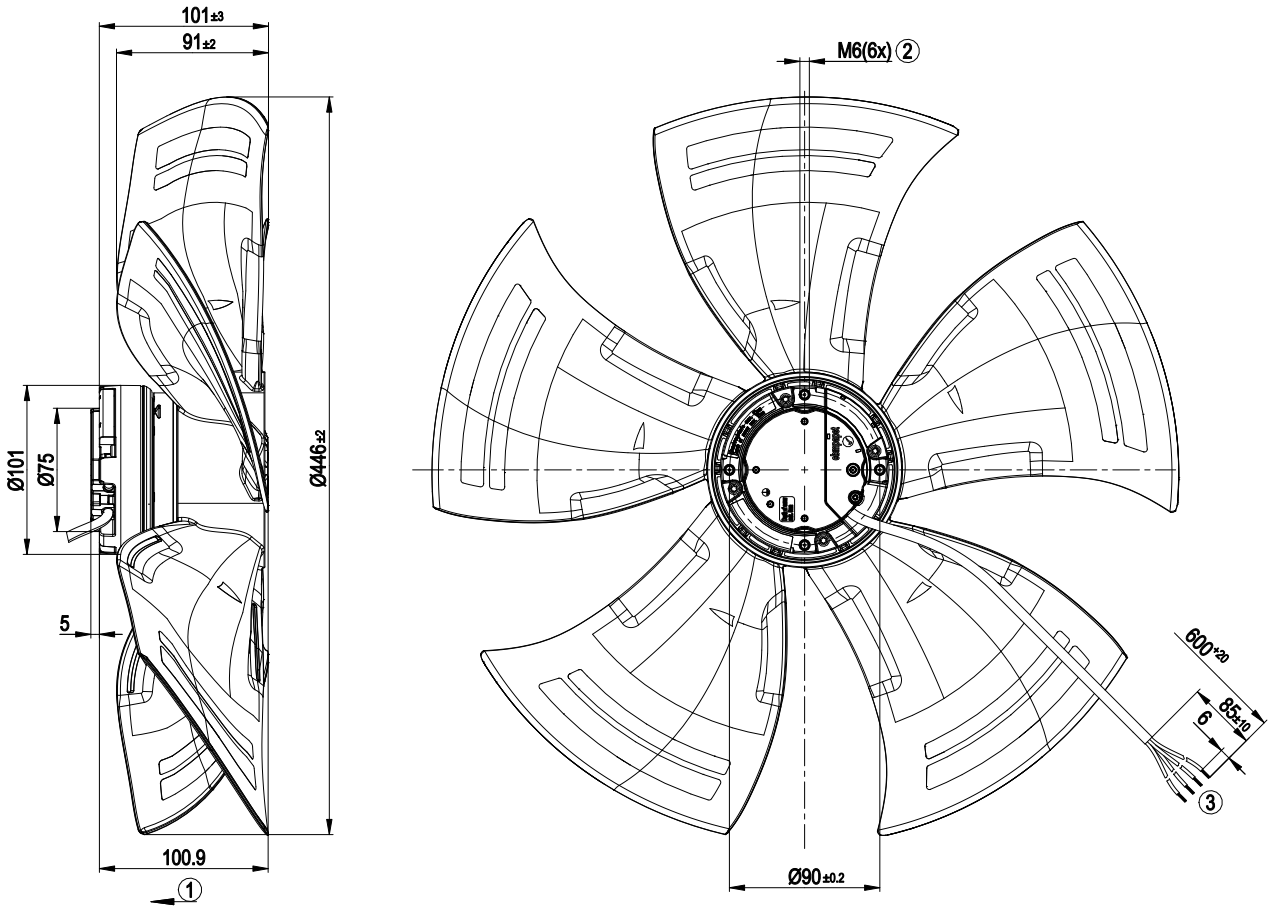
Mass	2.7 kg
Size	450 mm
Material of blades	Press-fitted sheet steel blank, sprayed with PP plastic
Number of blades	5
Direction of air flow	"V"
Direction of rotation	Counter-clockwise, seen on rotor
Type of protection	IP 54
Insulation class	"B"
Humidity (F)/environmental protection class (H)	F3-1
Max. permissible ambient motor temp. (transp./ storage)	+ 80 °C
Min. permissible ambient motor temp. (transp./storage)	- 40 °C
Mounting position	Any
Condensate discharge holes	None, open rotor
Cooling bore / aperture	Rotor-side
Operation mode	S1
Motor bearing	Ball bearing
Technical features	- Speed adjustment input (230 V) - Output limit - Motor current limit - Soft start - Overvoltage detection - Over-temperature protected electronics / motor - Line undervoltage detection
Speed steps	2
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	EN 60335-1; CE
Approval	CCC

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Product drawing



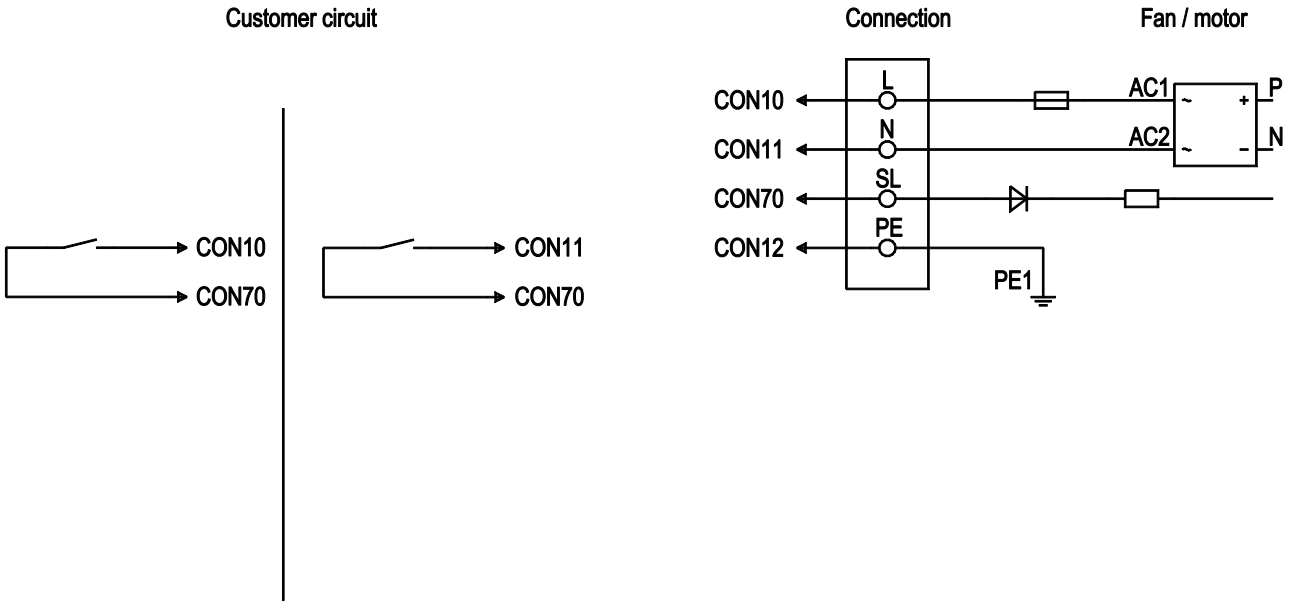
1	Direction of air flow "V"
2	Depth of screw max. 10 mm
3	Connection line PVC 4G AWG20, 4x brass lead tips crimped

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Connection screen



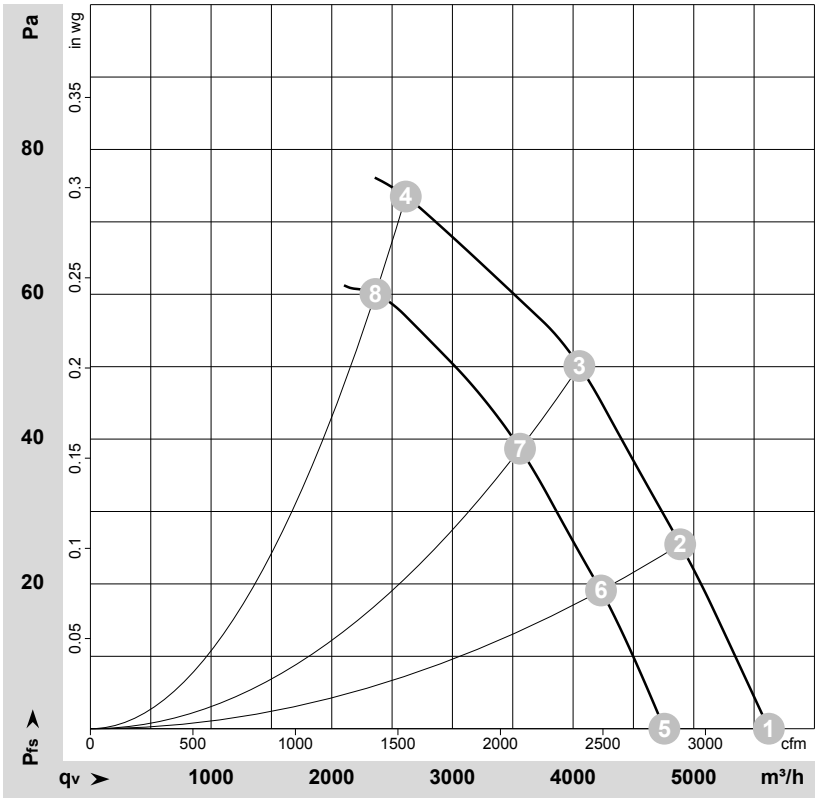
No.	Conn.	Designation	Colour	Function / assignment
	CON 10	L	black	Power supply 230 VAC, 50 - 60 Hz, see type plate for voltage range
	CON 11	N	blue	Neutral conductor
	CON 12	PE	green/yellow	Protective earth
	CON 70	SL	brown	Speed selection: switch open = speed 1; switch closed = speed 2

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Charts: Air flow 50 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-138244-1
Measurement: LU-148193-1

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}	q_V	p_{fs}	q_V	p_{fs}
	V	Hz	min^{-1}	W	A	dB(A)	dB(A)	m^3/h	Pa	cfm	inH2O
1	230	50	1110	163	1.34	59	66	5620	0	3310	0.00
2	230	50	1060	163	1.34	57	64	4890	25	2875	0.10
3	230	50	1025	163	1.34	54	61	4050	50	2385	0.20
4	230	50	980	163	1.34	61	68	2615	74	1540	0.30
5	230	50	945	105	0.92	55	61	4755	0	2800	0.00
6	230	50	930	114	0.99	54	60	4230	19	2490	0.08
7	230	50	915	122	1.07	52	58	3560	39	2095	0.16
8	230	50	895	129	1.09	58	66	2360	61	1390	0.24

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 · q_V = Air flow
p_{fs} = Pressure increase

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