

# AC axial fan

sickled blades (S series)

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## Nominal data

Type	A2D300-AP02-02				
Motor	M2D074-DF				
Phase		3~	3~	3~	3~
Nominal voltage	VAC	230	230	400	400
Connection		$\Delta$	$\Delta$	Y	Y
Frequency	Hz	50	60	50	60
Type of data definition		fa	fa	fa	fa
Valid for approval / standard		CE	CE	CE	CE
Speed	min <sup>-1</sup>	2580	2750	2580	2750
Power input	W	210	300	210	300
Current draw	A	0.62	0.84	0.36	0.48
Max. back pressure	Pa	200	125	200	125
Min. ambient temperature	°C	-25	-25	-25	-25
Max. ambient temperature	°C	75	40	75	40
Starting current	A	2.0	1.9	1.16	1.1

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

Installation category	A
Efficiency category	Static
Variable speed drive	No
Specific ratio*	1.00

\* Specific ratio =  $1 + p_s / 100\,000\text{ Pa}$

		Actual	Request 2015
Overall efficiency $\eta_{es}$	%	29.9	29.9
Efficiency grade N		40	40
Power input $P_e$	kW	0.25	
Air flow $q_v$	m <sup>3</sup> /h	2210	
Pressure increase $p_{fs}$	Pa	125	
Speed n	min <sup>-1</sup>	2455	

Data definition with optimum efficiency. LU-62732  
The ErP data is determined using a motor-impeller combination in a standardised measurement configuration.



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## Technical features

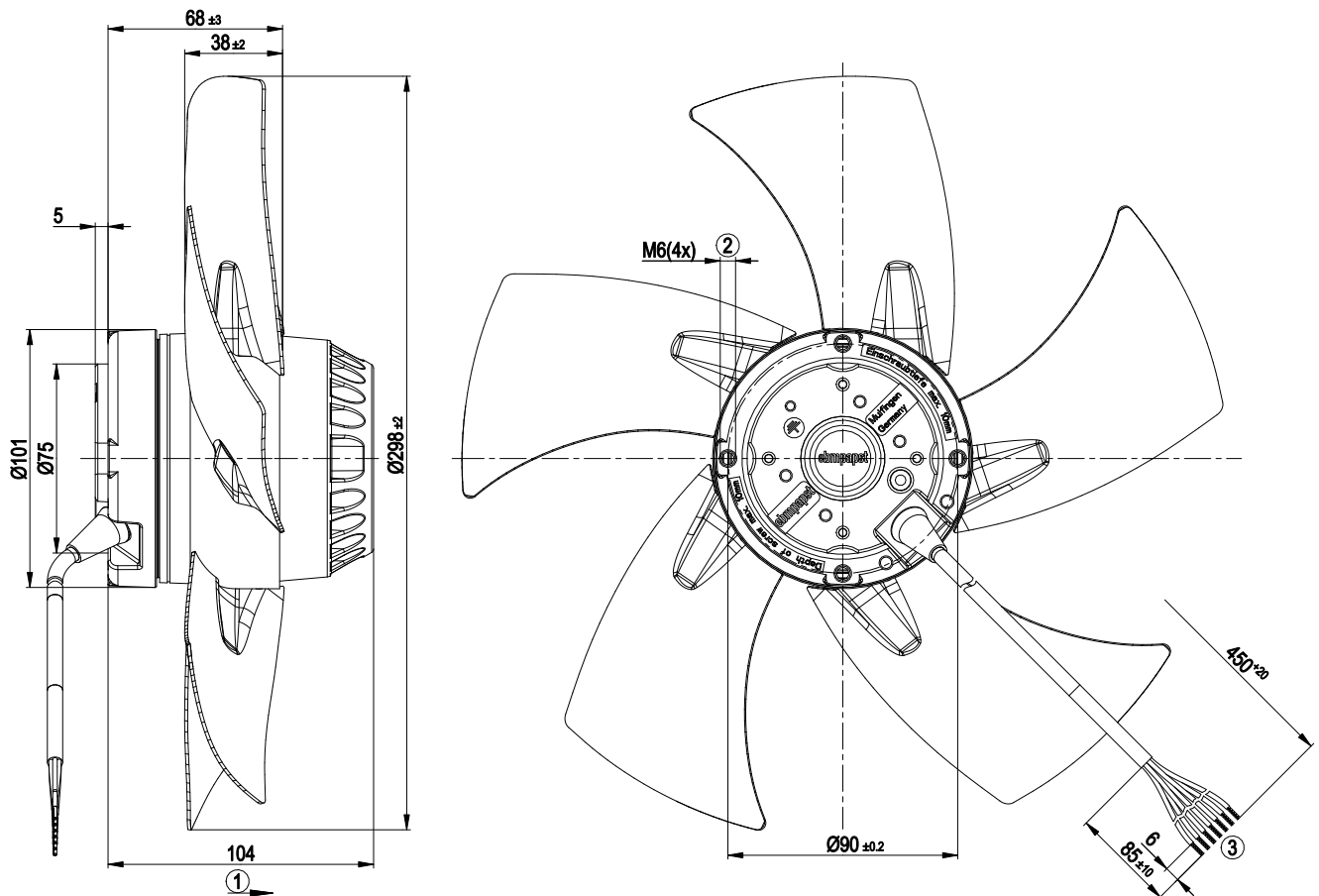
<b>Mass</b>	3.1 kg
<b>Size</b>	300 mm
<b>Surface of rotor</b>	Coated in black
<b>Material of blades</b>	Sheet steel, coated in black
<b>Number of blades</b>	5
<b>Direction of air flow</b>	"A"
<b>Direction of rotation</b>	Clockwise, seen on rotor
<b>Type of protection</b>	IP 44; Depending on installation and position as per EN 60034-5
<b>Insulation class</b>	"F"
<b>Humidity class</b>	F1-2
<b>Max. permissible ambient motor temp. (transp./ storage)</b>	+ 80 °C
<b>Min. permissible ambient motor temp. (transp./storage)</b>	- 40 °C
<b>Mounting position</b>	Shaft horizontal or rotor on bottom; rotor on top on request
<b>Condensate discharge holes</b>	Rotor-side
<b>Operation mode</b>	S1
<b>Motor bearing</b>	Ball bearing
<b>Touch current acc. IEC 60990 (measuring network Fig. 4, TN system)</b>	< 0.75 mA
<b>Cable exit</b>	Variable
<b>Protection class</b>	I (if protective earth is connected by customer)
<b>Product conforming to standard</b>	EN 60335-1, motor does not have factory-installed overheating protection
<b>Approval</b>	CCC



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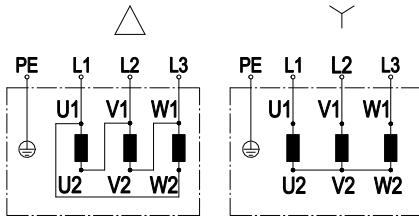
## Product drawing



1	Direction of air flow "A"
2	Thread reach max. 10 mm
3	Connection line PFA AWG20 (green/yellow AWG18), 7x lead tips crimped



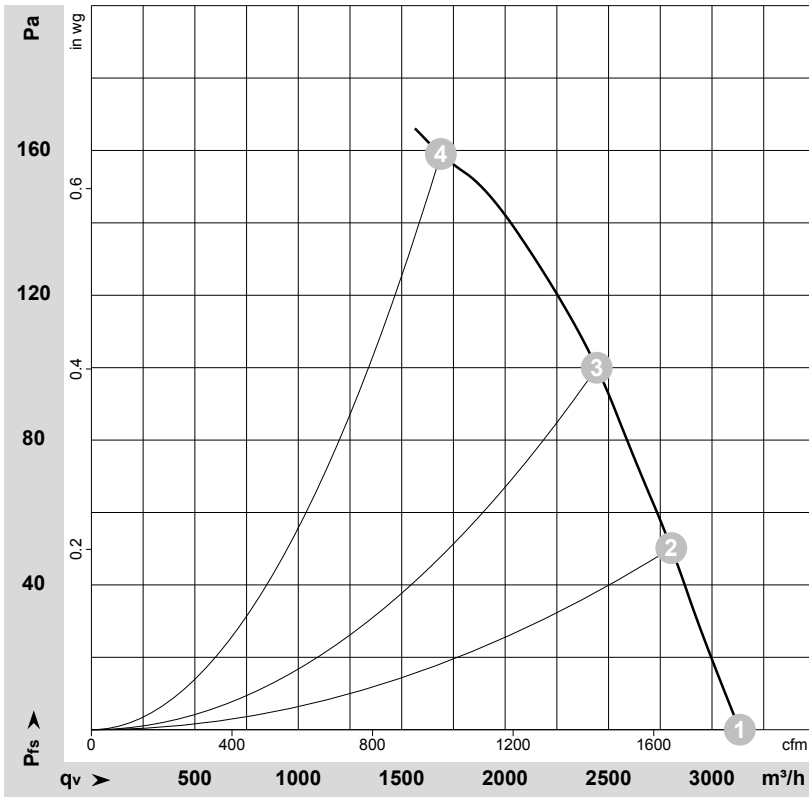
## Connection screen



Change direction of rotation by reversing two phases

	Three-phase motor	Δ	Delta connection	Y	Star connection
L1	= U1 = black	L2	= V1 = blue	L3	= W1 = brown
U2	green	V2	white	W2	yellow
PE	green/yellow				

## Charts: Air flow 50 Hz



$\rho = 1,15 \text{ kg/m}^3 \pm 2\%$

Measurement: LU-62732

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.

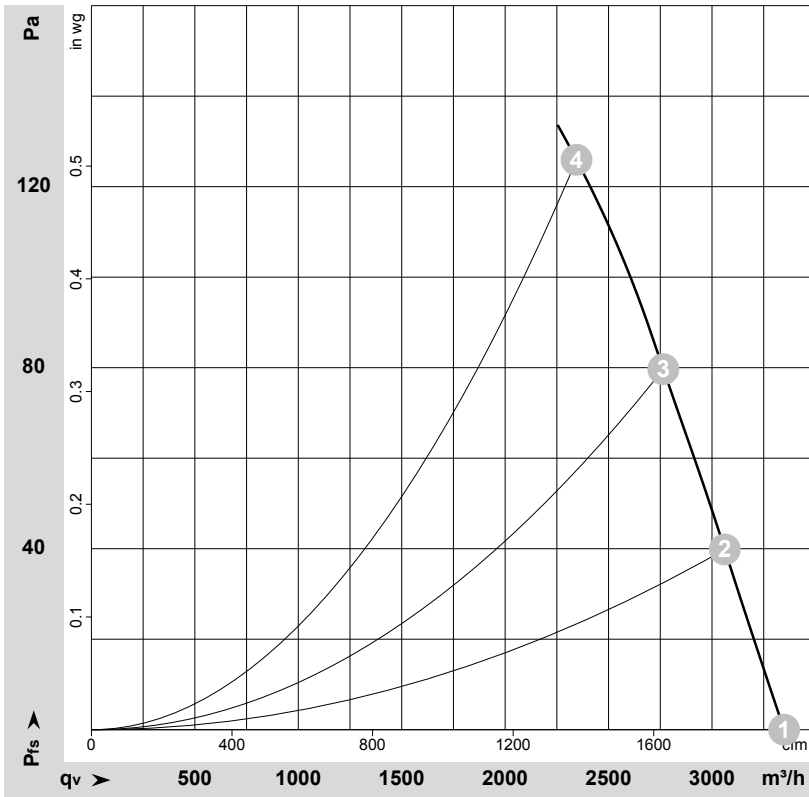
## Measured values

	Conn.	U	f	n	P <sub>e</sub>	I	qv	p <sub>fs</sub>
		V	Hz	min <sup>-1</sup>	W	A	m <sup>3</sup> /h	Pa
1	Y	400	50	2580	210	0.36	3135	0
2	Y	400	50	2540	228	0.36	2805	50
3	Y	400	50	2490	244	0.39	2445	100
4	Y	400	50	2385	281	0.44	1690	160

Conn. = Connection · U = Supply voltage · f = Frequency · n = Speed · P<sub>e</sub> = Power input · I = Current draw · qv = Air flow · p<sub>fs</sub> = Pressure increase



## Charts: Air flow 60 Hz



$\rho = 1,15 \text{ kg/m}^3 \pm 2\%$

Measurement: LU-62733

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 <sub>e</sub>	I	qv	P <sub>fs</sub>
	V	Hz	min <sup>-1</sup>	W	A	m <sup>3</sup> /h	Pa
1	400	60	2750	300	0.48	3350	0
2	400	60	2685	316	0.48	3060	40
3	400	60	2625	331	0.50	2765	80
4	400	60	2540	349	0.53	2345	125

U = Supply voltage · f = Frequency · n = Speed · P<sub>e</sub> = Power input · I = Current draw · qv = Air flow · P<sub>fs</sub> = Pressure increase

