

# AC axial fan

straight blades (A series)

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### Nominal data

Type	A2D170-AA04-01				
Motor	M2D068-BF				
Phase		3~	3~	3~	3~
Nominal voltage	VAC	230	230	400	400
Connection		Δ	Δ	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>	2750	3100	2750	3100
Power input	W	45	43	45	43
Current draw	A	0.23	0.16	0.13	0.09
Min. ambient temperature	°C	-25	-25	-25	-25
Max. ambient temperature	°C	55	70	55	70
Starting current	A	0.4	0.38	0.23	0.22

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

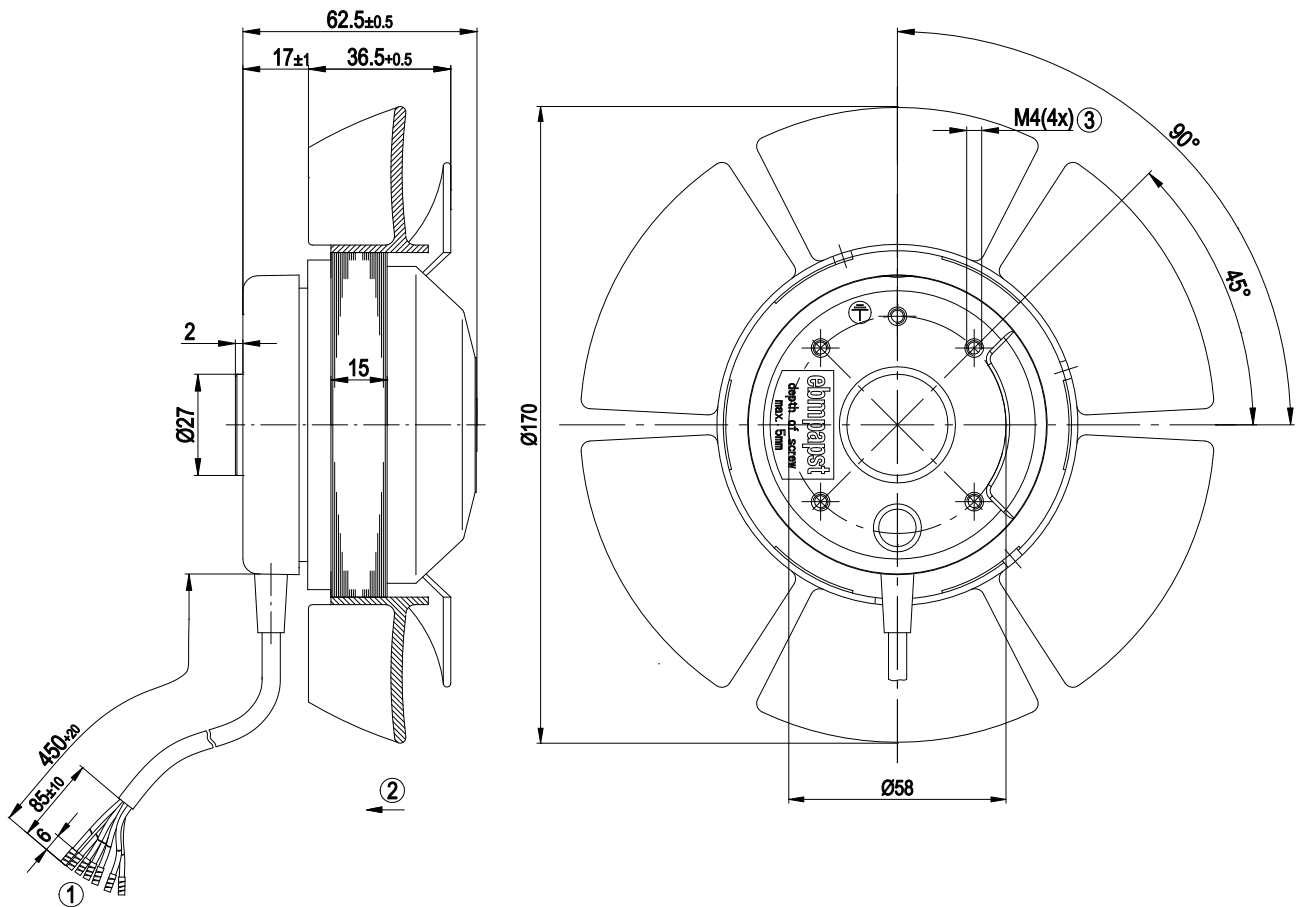
<b>Mass</b>	1.18 kg
<b>Size</b>	170 mm
<b>Surface of rotor</b>	Coated in black
<b>Material of impeller</b>	Die-cast aluminium
<b>Number of blades</b>	6
<b>Direction of air flow</b>	"V"
<b>Direction of rotation</b>	Counter-clockwise, seen on rotor
<b>Type of protection</b>	IP 44
<b>Insulation class</b>	"B"
<b>Humidity class</b>	F0
<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>	Any
<b>Condensate discharge holes</b>	None
<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>	Lateral
<b>Protection class</b>	I (if protective earth is connected by customer)
<b>Approval</b>	CCC



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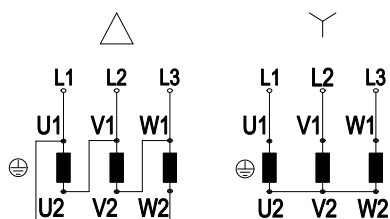
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## Product drawing



1	Connection line PVC 7 x 0.5 mm <sup>2</sup> ; 7 x brass lead tips crimped
2	Direction of air flow "V"
3	Depth of screw max. 5 mm

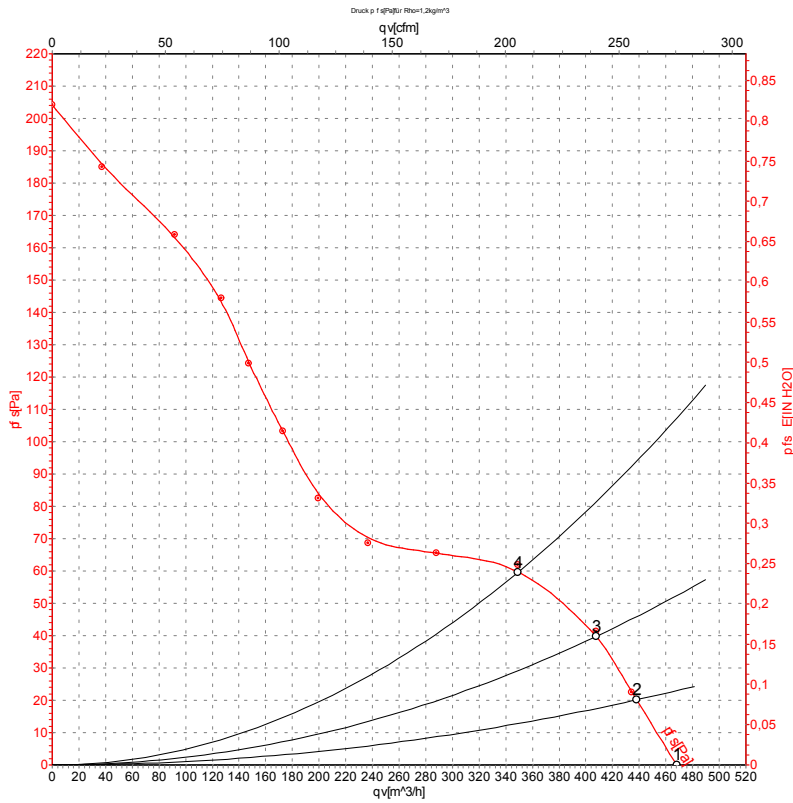
## Connection screen



Note: Direction of rotation changes when two phases are reversed

$\Delta$	Delta connection	Y	Star connection	L1	black
L2	blue	L3	brown	U1	black
V1	blue	W1	brown	U2	green
V2	white	W2	yellow		

## Charts: Air flow 50 Hz



Measurement: LU-25208

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: L<sub>wA</sub> measured as per ISO 13347 / L<sub>pA</sub> 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.

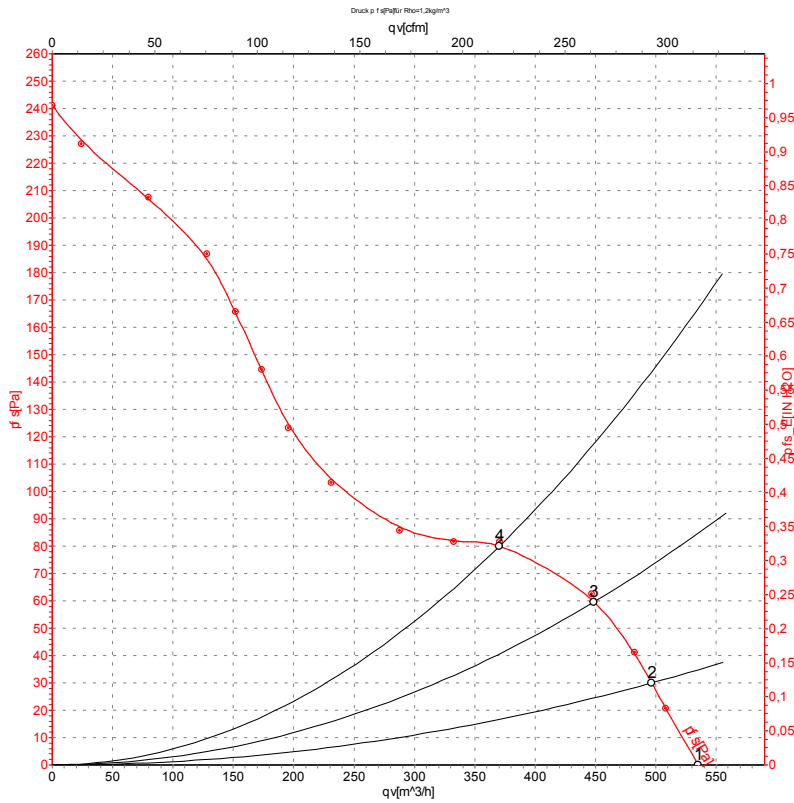
## Measured values

	U	f	n	P <sub>e</sub>	I	qv	p <sub>fs</sub>
	V	Hz	min <sup>-1</sup>	W	A	m³/h	Pa
1	400	50	2710	42	0.12	470	0
2	400	50	2705	42	0.12	440	20
3	400	50	2685	43	0.12	410	40
4	400	50	2675	44	0.12	350	60

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



Measurement: LU-25209

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: L<sub>wA</sub> measured as per ISO 13347 / L<sub>pA</sub> 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	3100	39	0.09	535	0
2	400	60	3065	41	0.09	495	30
3	400	60	3015	43	0.09	450	60
4	400	60	3000	44	0.09	370	80

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

