

AC axial fan

straight blades (A series)

Wall ring with guard grille

W2D170-AA04-52 ebmpapst Datasheet

sales@fansco.com

www.fansco.com

Nominal data

Type	W2D170-AA04-52				
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 ⁻¹	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

Mass	1.8 kg
Size	170 mm
Surface of rotor	Coated in black
Material of blades	Die-cast aluminium
Material of wall ring	Die-cast aluminium
Material of guard grille	Steel, coated in black plastic (RAL9005)
Number of blades	6
Direction of air flow	"A"
Direction of rotation	Clockwise, seen on rotor
Type of protection	IP 44; Depending on installation and position
Insulation class	"B"
Humidity class	F0
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
Operation mode	S1
Motor bearing	Ball bearing
Touch current acc. IEC 60990 (measuring network Fig. 4, TN system)	< 0.75 mA
Motor protection	Thermal overload protector (TOP) brought out
Cable exit	Lateral
Protection class	I (if protective earth is connected by customer)
Product conforming to standard	EN 60335-1; CE
Approval	UL 1004-1; CSA C22.2 Nr.100

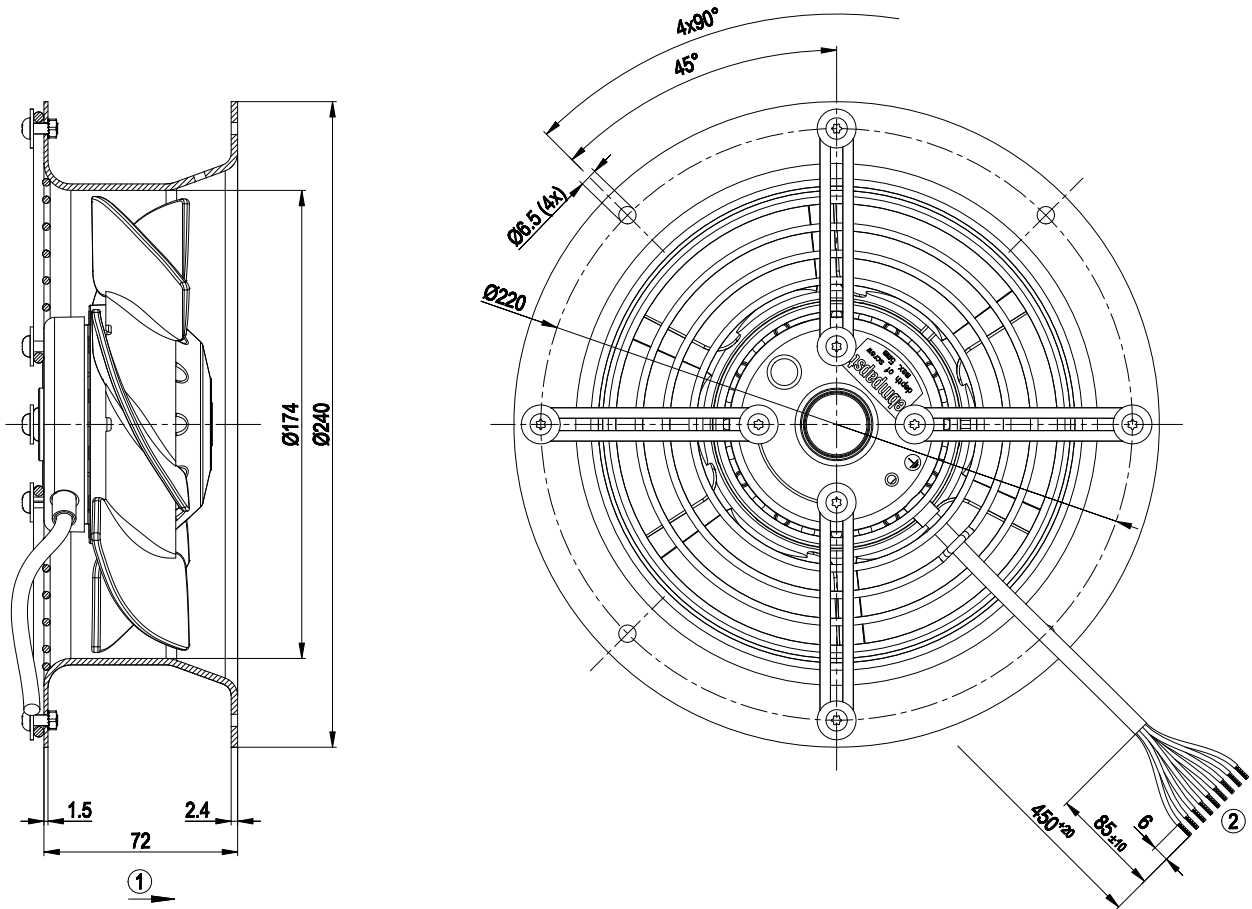


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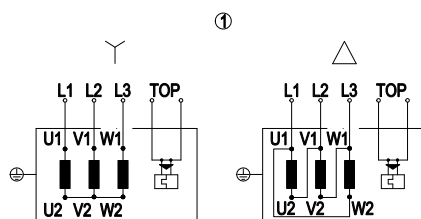
Product drawing



- | | |
|---|---|
| 1 | Direction of air flow "A" |
| 2 | Connection line AWG20, 9x brass lead tips crimped |



Connection screen

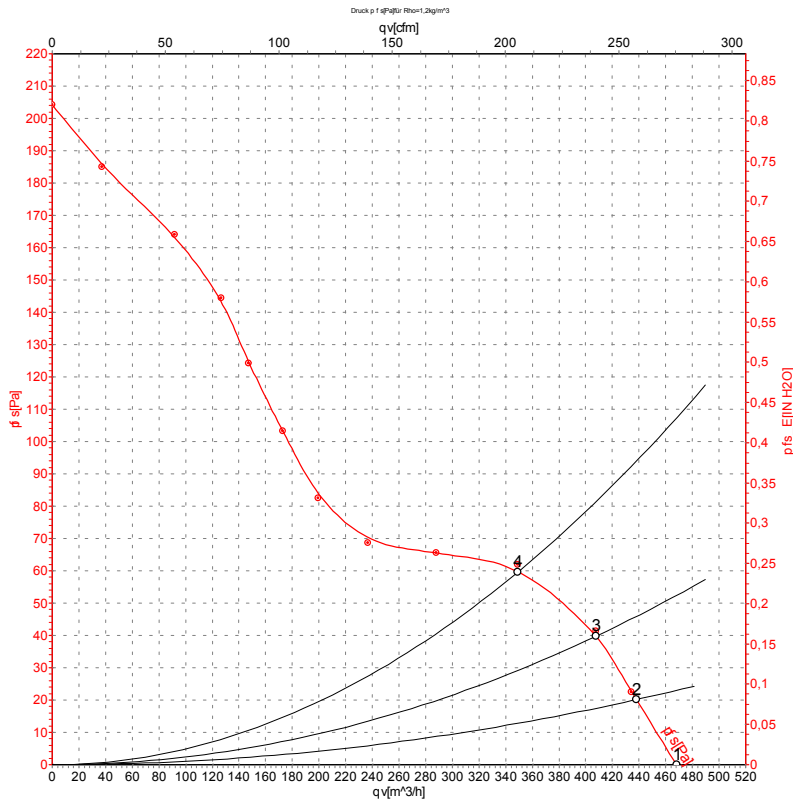


1	Three-phase motor
Y	Star connection
Δ	Delta connection
L1	= U1 = black 2
L2	= V1 = black 1
L3	= W1 = black 3
V2	= black 4
U2	= black 5
W2	= black 6
TOP	(Thermal overload protector) 2x yellow

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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_{wA} measured as per ISO 13347 / L_{pA} 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 _e	I	qv	p _{fs}
	V	Hz	min ⁻¹	W	A	m ³ /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

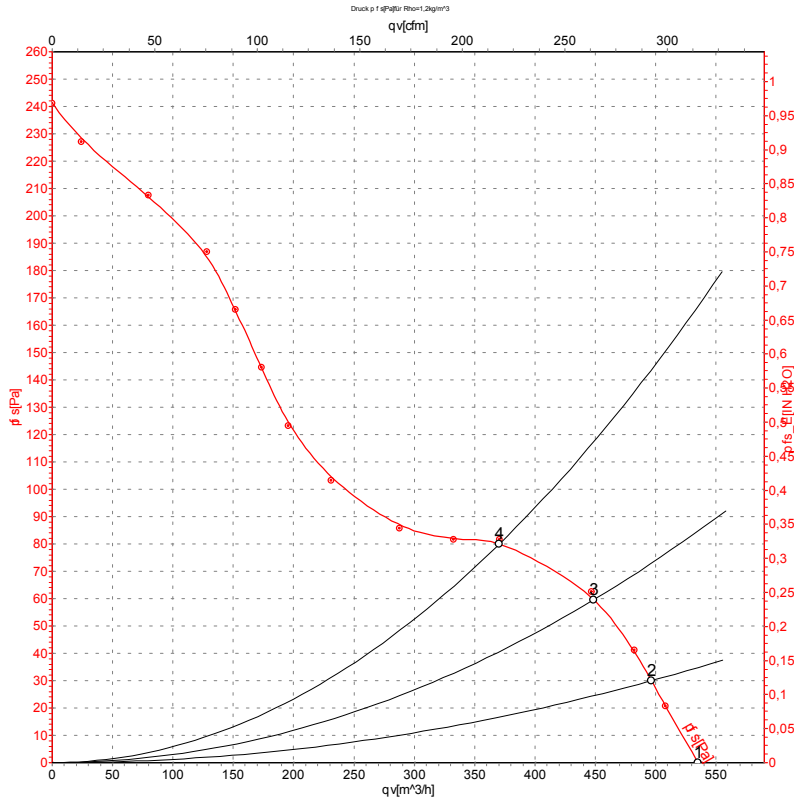
U = Supply voltage · f = Frequency · n = Speed · P_e = Power input · I = Current draw · qv = Air flow · p_{fs} = Pressure increase



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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_{wA} measured as per ISO 13347 / L_{pA} 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 _e	I	qv	p _{fs}
	V	Hz	min ⁻¹	W	A	m ³ /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_e = Power input · I = Current draw · qv = Air flow · p_{fs} = Pressure increase

