

AC axial fan

straight blades (A series), single-intake

A2D300-AD20-49 ebmpapst Datasheet
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Nominal data

Type	A2D300-AD20-49				
Motor	M2D068-EC				
Phase		3~	3~	3~	3~
Nominal voltage	VAC	230	230	400	400
Wiring		Δ	Δ	Y	Y
Frequency	Hz	50	60	50	60
Method of obtaining data		ce	ce	ce	ce
Valid for approval/standard		CE	CE	CE	CE
Speed (rpm)	min ⁻¹	2650	2900	2650	2900
Power consumption	W	220	320	220	320
Current draw	A	0.70	0.87	0.4	0.5
Min. ambient temperature	°C	-25	-25	-25	-25
Max. ambient temperature	°C	50	45	50	45

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

Data according to Commission Regulation (EU) 327/2011 (EN 17166)

		Actual	Req. 2015			
01 Overall efficiency η_{es}	%	35.7	29.6	09 Power consumption P_e	kW	0.22
02 Measurement category		A		09 Air flow q_v	m ³ /h	1905
03 Efficiency category		Static		09 Pressure increase p_{fs}	Pa	155
04 Efficiency grade N		46.1	40	10 Speed (rpm) n	min ⁻¹	2615
05 Variable speed drive		No		11 Specific ratio [*]		1.00

Data obtained at optimum efficiency level.

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

LU-171541

The efficiency values displayed for achieving conformity with the Ecodesign Regulation EU 327/2011 has been reached with defined air duct components (e.g. inlet rings).
 The dimensions must be requested from ebm-papst. If other air conduction geometries are used on the installation side, the ebm-papst evaluation loses its validity/the conformity must be confirmed again.
 The product does not fall within the scope of Regulation (EU) 2019/1781 due to the exception specified in Article 2 (2a) (motors completely integrated into a product).



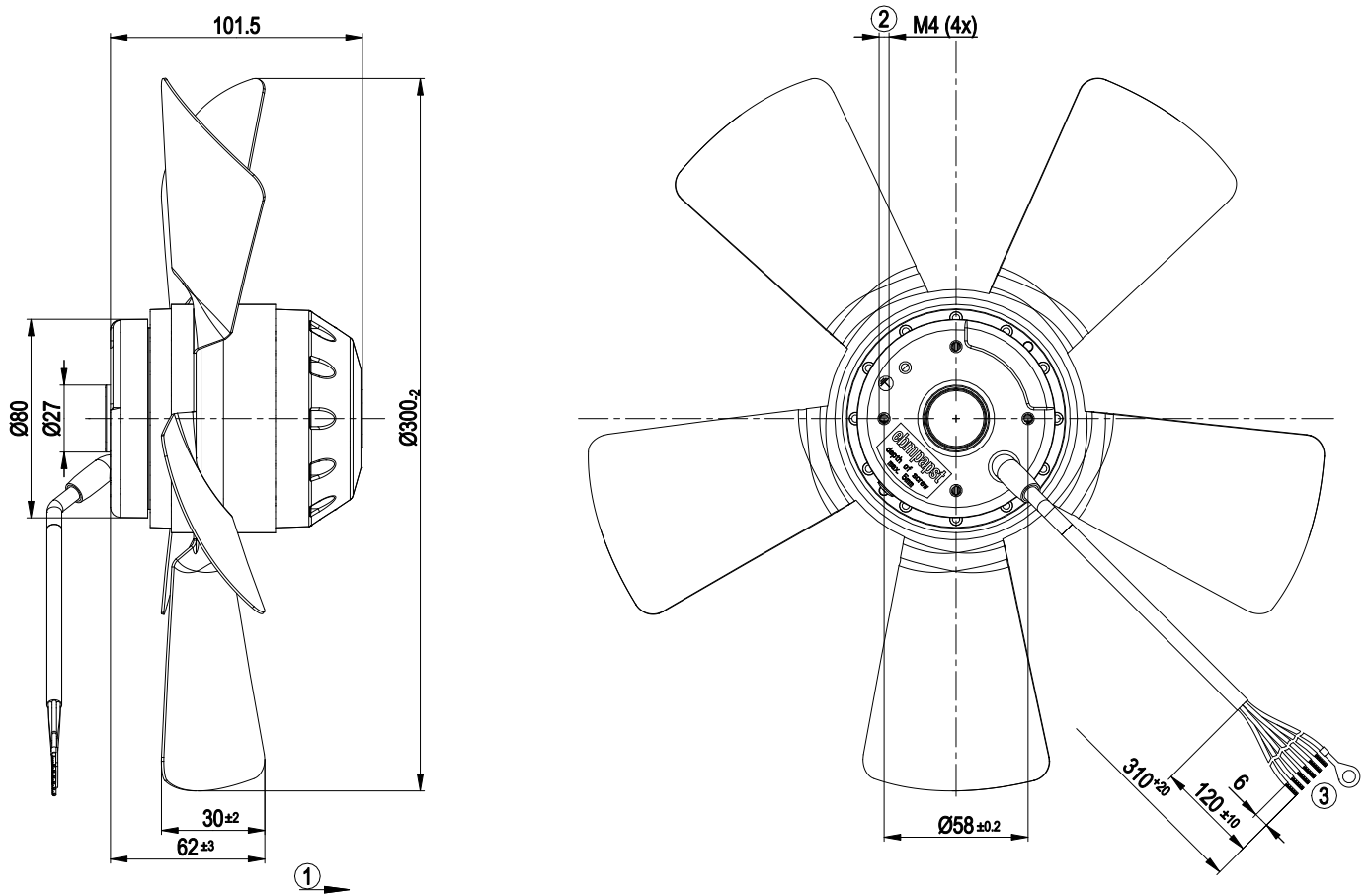
Technical description

Weight	2.8 kg
Size	300 mm
Motor size	68
Rotor surface	Painted black
Blade material	Sheet steel, painted black
Number of blades	5
Airflow direction	A
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	IP44; installation- and position-dependent
Insulation class	"F"
Moisture (F) / Environmental (H) protection class	H1+
Max. permitted ambient temp. for motor (transport/storage)	+ 80 °C
Min. permitted ambient temp. for motor (transport/storage)	- 40 °C
Installation position	Any
Condensation drainage holes	None
Mode	S1
Motor bearing	Ball bearing
Touch current according to IEC 60990 (measuring circuit Fig. 4, TN system)	< 0.75 mA
With cable	Axial
Protection class	I (with customer connection of protective earth)
Conformity with standards	EN 60335-1, motor does not have factory-installed overheating protection; CE
Approval	EAC; CCC

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Product drawing



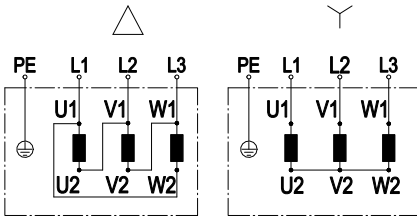
1	Direction of air flow "A"
2	Max. clearance for screw 5 mm
3	Cable PFA AWG20 (green/yellow AWG18), 6x crimped splices and 1x crimped ring terminal Ø 5.2



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Connection diagram

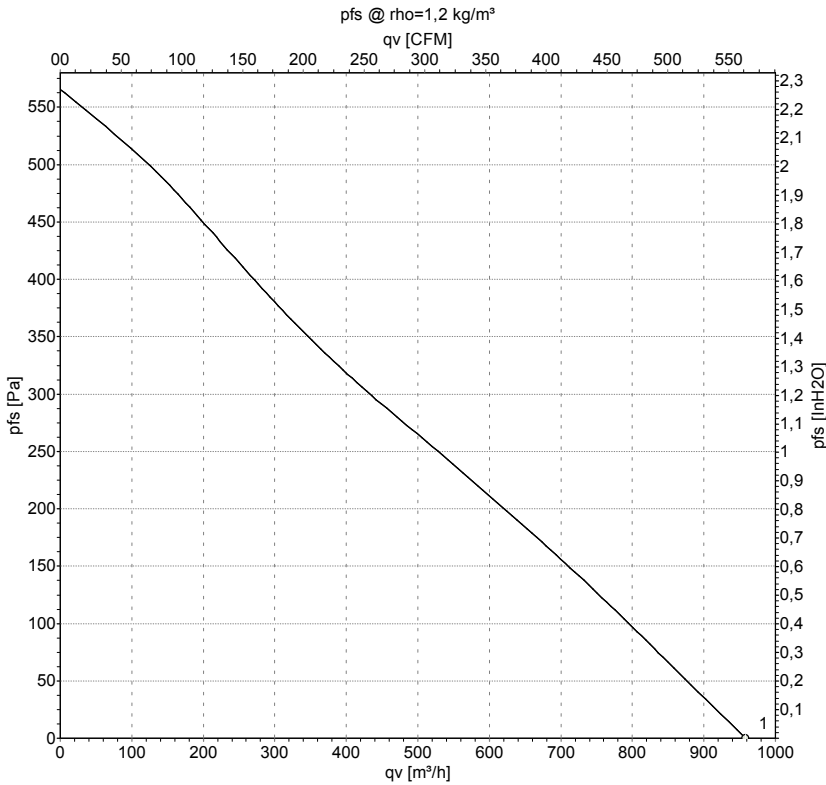


Change of rotation direction by reversing two phases

	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				



Curves: Air performance 50 Hz



Measurement: LU-31980-1

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.

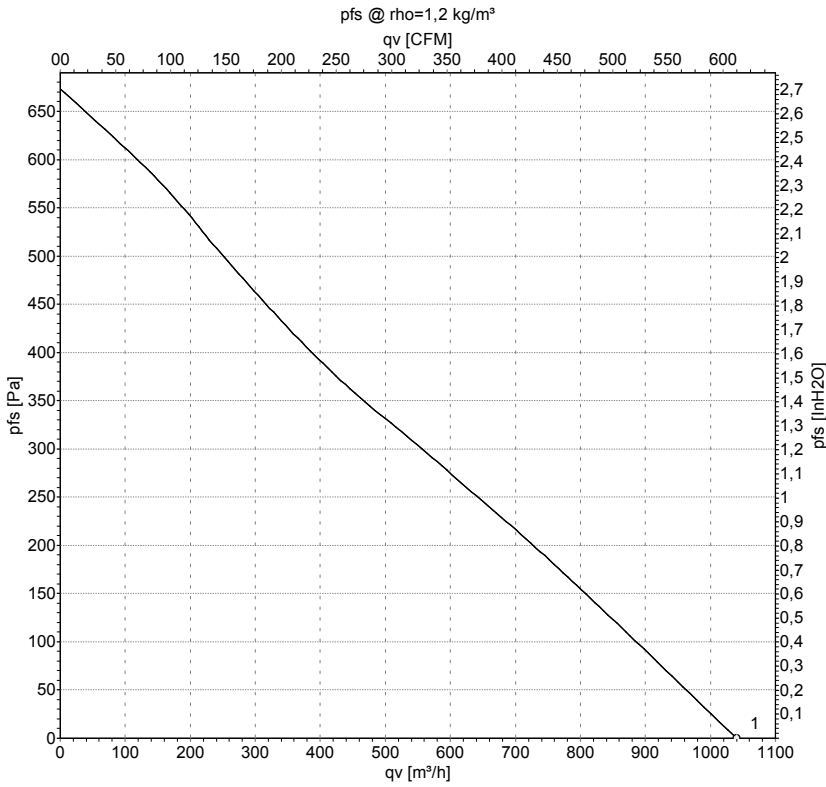
Measured values

	U	f	n	P _e	I	q _v	q _v	P _{fs}
	V	Hz	min ⁻¹	W	A	m ³ /h	cfm	in. wg
1	400	50	2650	220	0.40	960	565	0.00

U = Voltage · f = Frequency · n = Speed (rpm) · P_e = Power consumption · I = Current draw · q_v = Air flow



Curves: Air performance 60 Hz



Measurement: LU-31982-1

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 _e	I	q _v	q _v	P _{fs}
	V	Hz	min ⁻¹	W	A	m ³ /h	cfm	in. wg
1	400	60	2900	320	0.50	1040	610	0.00

U = Voltage · f = Frequency · n = Speed (rpm) · P_e = Power consumption · I = Current draw · q_v = Air flow

