A2D300-AQ01-05

AC axial fan

sickle-shaped blades (S series)

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Amtsgericht (court of registration) Stuttgart · HRA 590344

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Amtsgericht (court of registration) Stuttgart · HRB 590142

Nominal data

Type	**A2D300-AQ01-05**
Motor	**M2D074-EI**

Phase		3~	3~
Nominal voltage	VAC	400	400
Wiring		Y	Y
Frequency	Hz	50	60
Method of obtaining data		fa	fa
Valid for approval/standard		CE	CE
Speed (rpm)	min^{-1}	2650	2900
Power consumption	W	195	290
Current draw	A	0.36	0.48
Max. back pressure	Pa	125	140
Max. back pressure	in. wg	0.5	0.56
Min. ambient temperature	°C	-25	-25
Max. ambient temperature	°C	80	75
Starting current	A	1.65	1.6

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}	%	33	29.9
02 Measurement category		A	
03 Efficiency category		Static	
04 Efficiency grade N		43.1	40
05 Variable speed drive		No	

09 Power consumption P_e	kW	0.25
09 Air flow q_v	m^3/h	2100
09 Pressure increase p_{fs}	Pa	143
10 Speed (rpm) n	min^{-1}	2515
11 Specific ratio*		1.00

Data obtained at optimum efficiency level.
The ErP data is determined using a motor-impeller combination in a standardized measurement setup.

* Specific ratio = 1 + p_{fs} / 100 000 Pa

LU-68886

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Technical description

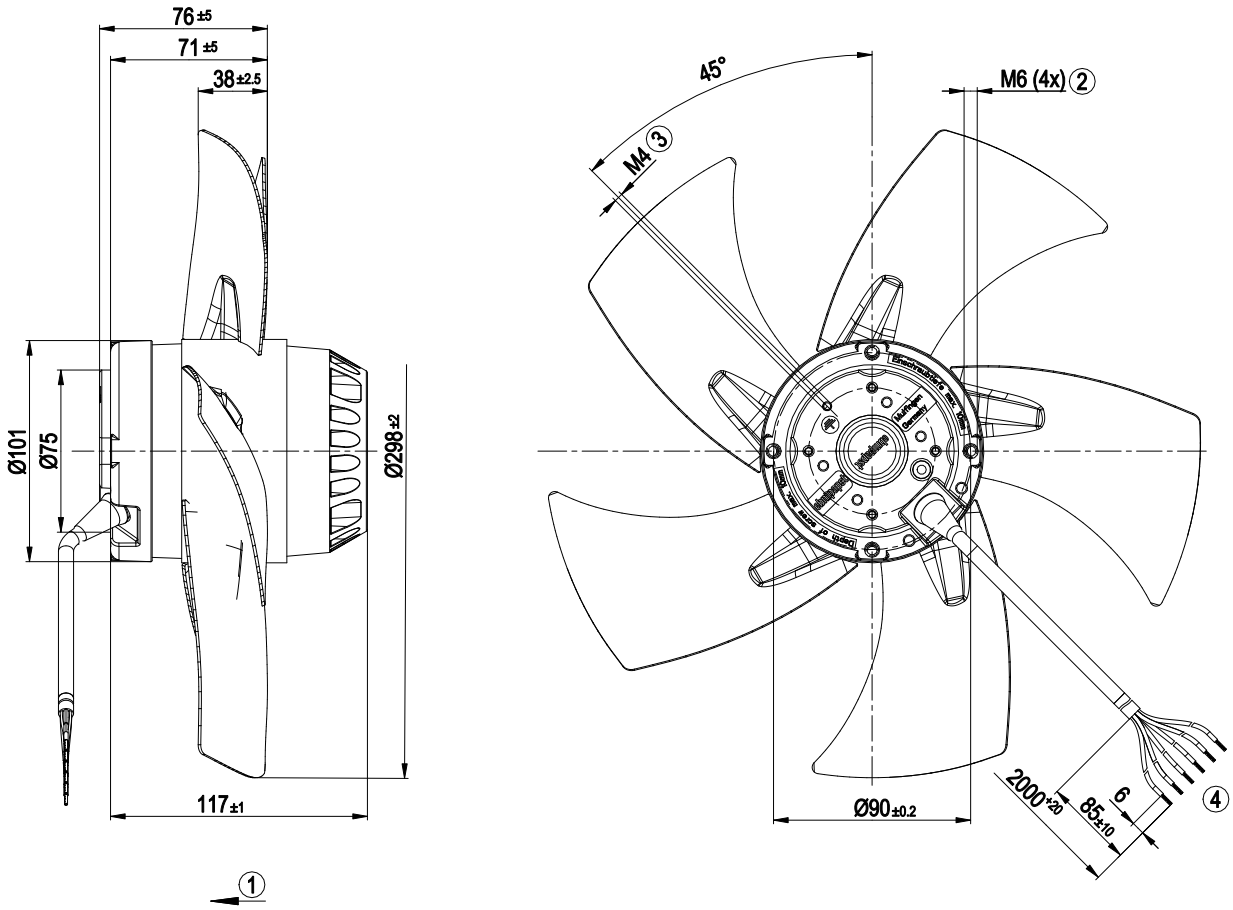
Weight	4 kg
Size	300 mm
Motor size	74
Rotor surface	Painted black
Blade material	Sheet steel, painted black
Number of blades	5
Airflow direction	V
Direction of rotation	Counterclockwise, viewed toward rotor
Degree of protection	IP44; installation- and position-dependent as per EN 60034-5
Insulation class	"F"
Max. permitted ambient temp. for motor (transport/storage)	+80 °C
Min. permitted ambient temp. for motor (transport/storage)	-40 °C
Installation position	Rotor on top
Condensation drainage holes	On stator side
Mode	S1
Motor bearing	Ball bearing
Touch current according to IEC 60990 (measuring circuit Fig. 4, TN system)	< 0.75 mA
Motor protection	Thermal overload protector (TOP) with basic insulation
With cable	Variable
Protection class	I (with customer connection of protective earth)
Conformity with standards	EN 60335-1; CE

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Product drawing



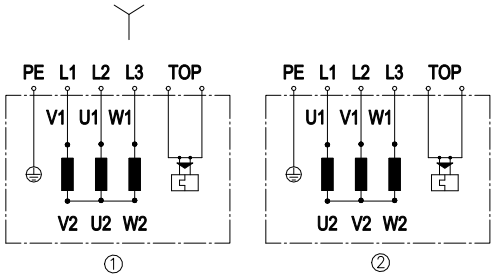
1	Airflow direction "V"
2	Max. clearance for screw 10 mm
3	Max. clearance for screw 5 mm
4	Cable, halogen-free, railway application EN 45545, 6G 0.5 mm²
	6x splice

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Connection diagram



Change of rotation direction by reversing two phases

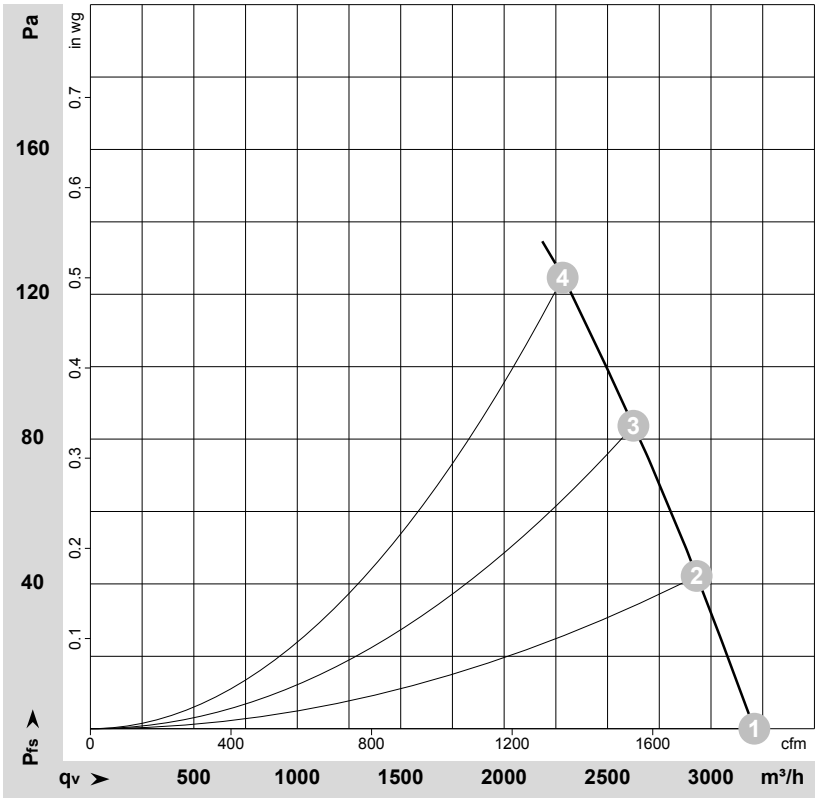
	Three-phase motor
Y	Star connection
1	Counterclockwise operation
L1	= V1 = blue
L2	= U1 = black
L3	= W1 = brown
2	Clockwise operation
L1	= U1 = black
L2	= V1 = blue
L3	= W1 = brown
PE	green/yellow
TOP	2x gray

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Curves: Air performance 50 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-68886-1

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	p_{fs}	q_V	p_{fs}
	V	Hz	min^{-1}	W	A	m^3/h	Pa	cfm	in. wg
1	400	50	2650	195	0.36	3210	0	1890	0.00
2	400	50	2600	215	0.39	2930	40	1725	0.16
3	400	50	2565	231	0.41	2625	85	1545	0.34
4	400	50	2535	244	0.43	2285	125	1345	0.50

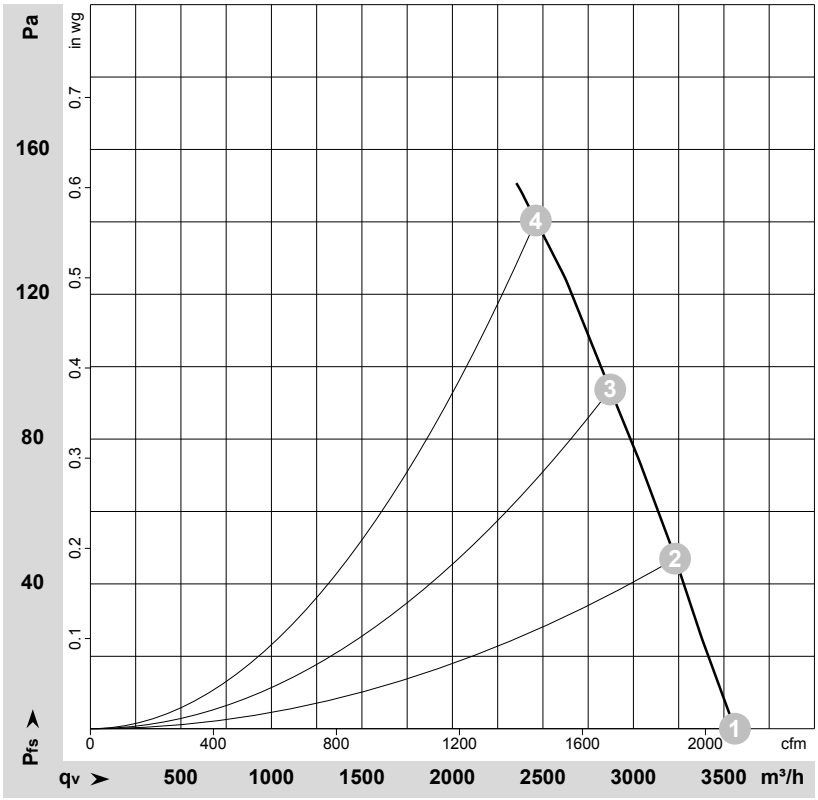
U = Voltage · f = Frequency · n = Speed (rpm) · P_e = Power consumption · I = Current draw · q_V = Air flow · p_{fs} = Pressure increase

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Curves: Air performance 60 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-68885-1

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	p_{fs}	q_V	p_{fs}
	V	Hz	min^{-1}	W	A	m^3/h	Pa	cfm	in. wg
1	400	60	2900	290	0.48	3560	0	2095	0.00
2	400	60	2835	313	0.51	3230	45	1900	0.18
3	400	60	2775	331	0.54	2870	95	1690	0.38
4	400	60	2705	351	0.57	2460	140	1450	0.56

U = Voltage · f = Frequency · n = Speed (rpm) · P_e = Power consumption · I = Current draw · q_V = Air flow · p_{fs} = Pressure increase

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