W2D300-CP02-49

AC axial fan

sickle-shaped blades (S series)

with round full nozzle

W2D300-CP02-49 ebmpapst Datasheet
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Amtsgericht (court of registration) Stuttgart · HRB 590142

ErP2015 EXCEEDS THE NORM

Nominal data

Type	**W2D300-CP02-49**
Motor	**M2D074-DF**

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}	2580	2750
Power consumption	W	210	300
Current draw	A	0.36	0.48
Max. back pressure	Pa	200	125
Max. back pressure	inH2O	0.8	0.5
Min. ambient temperature	°C	-25	-25
Max. ambient temperature	°C	75	40
Starting current	A	1.16	1.1

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

Data according to ErP Directive

		Actual	Req. 2015
01 Overall efficiency η_{es}	%	29.9	29.9
02 Measurement category		A	
03 Efficiency category		Static	
04 Efficiency grade N		40	40
05 Variable speed drive		No	

09 Power consumption P_e	kW	0.25
09 Air flow q_v	m^3/h	2210
09 Pressure increase p_{fs}	Pa	125
10 Speed (rpm) n	min^{-1}	2455
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-62732

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Technical description

Weight	5.43 kg
Fan size	300 mm
Rotor surface	Painted black
Terminal box material	Die-cast aluminum
Blade material	Sheet steel, painted black
Fan housing material	Sheet steel, pre-galvanized and coated with black plastic (RAL 9005)
Guard grille material	Steel, coated with black plastic (RAL 9005)
Number of blades	5
Airflow direction	"A"
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	IP44; installation- and position-dependent as per EN 60034-5
Insulation class	"F"
Moisture (F) / Environmental (H) protection class	F2-2
Max. permitted ambient temp. for motor (transport/storage)	+ 80 °C
Min. permitted ambient temp. for motor (transport/storage)	- 40 °C
Installation position	Shaft horizontal or rotor on bottom; rotor on top on request
Condensation drainage holes	On rotor side
Mode	S1
Motor bearing	Ball bearing
Touch current according to IEC 60990 (measuring circuit Fig. 4, TN system)	< 0.75 mA
Electrical hookup	Via terminal box
With cable	Variable
Protection class	I (with customer connection of protective earth)
Conformity with standards	EN 60335-1
Approval	CCC

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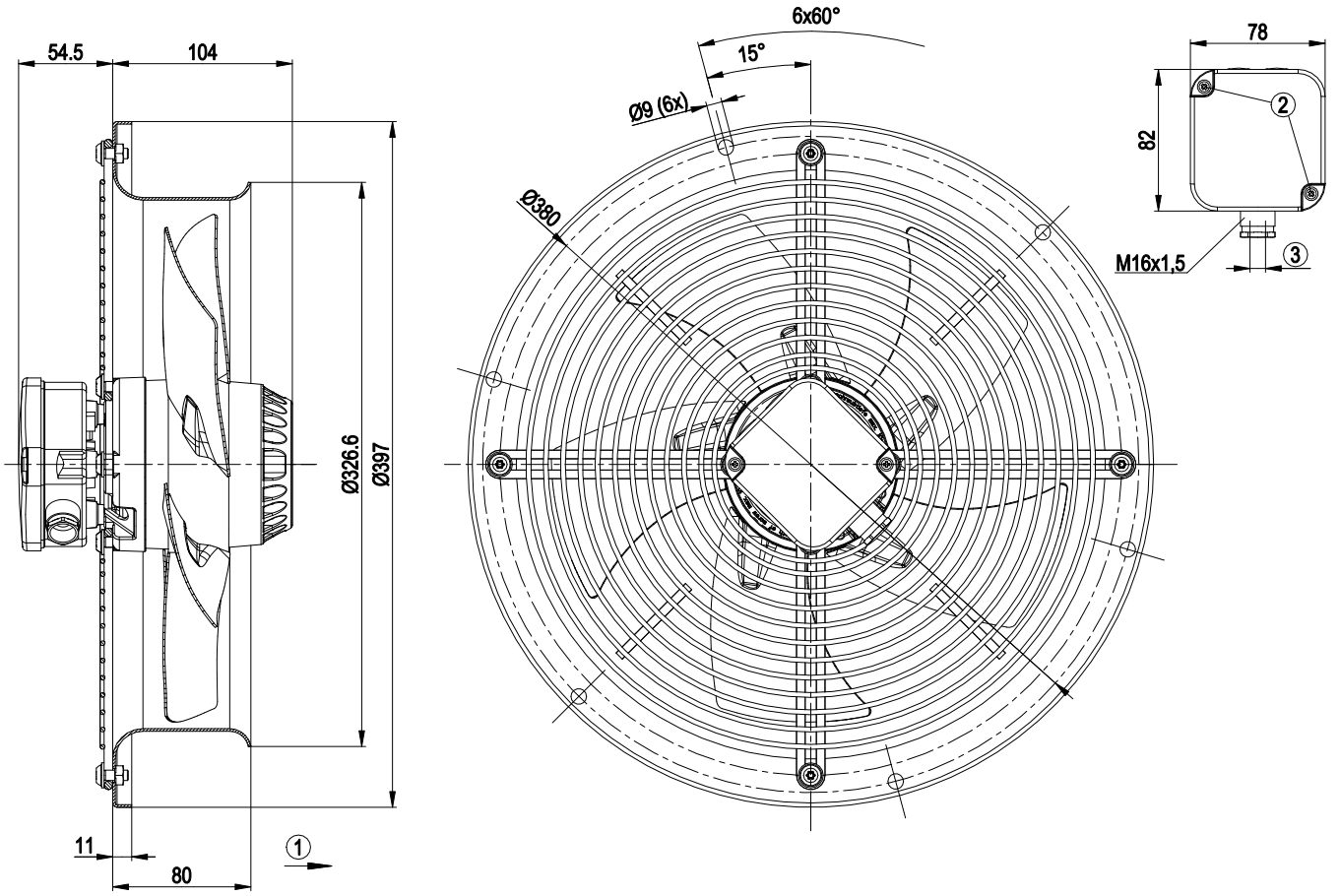
Product drawing



1	Direction of air flow "A"
2	Tightening torque 2.0±0.3 Nm
3	Cable diameter: min. 6 mm, max. 9 mm, tightening torque 1.3±0.2 Nm

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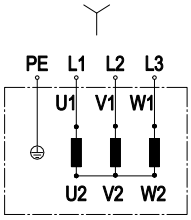
Connection diagram



Change of rotation direction by reversing two phases

	Three-phase motor	Y	Star connection	L1	black
L2	blue	L3	brown	PE	green/yellow

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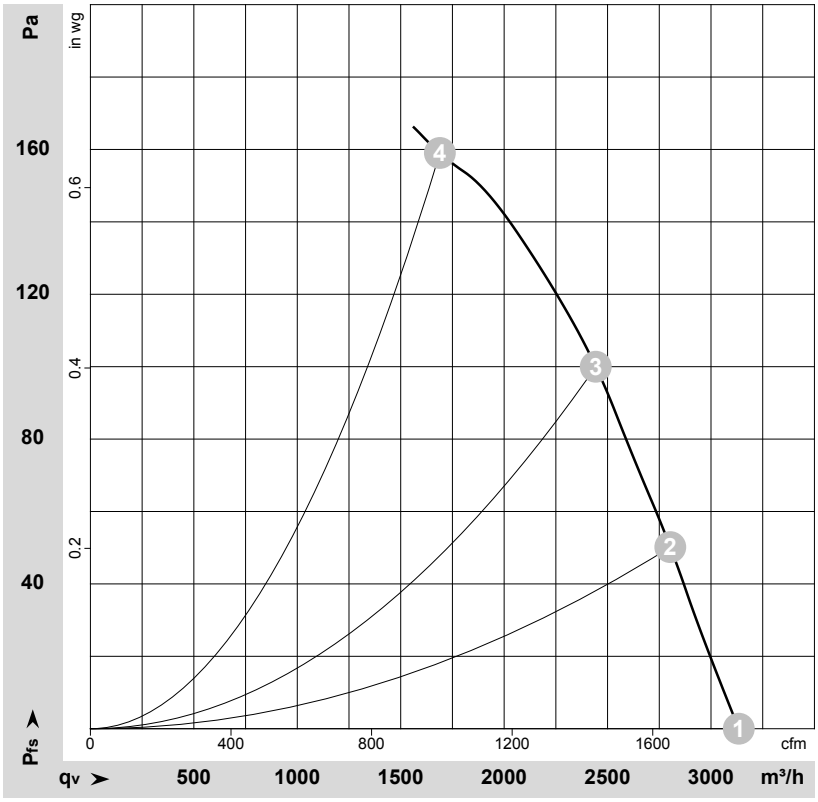
Curves: Air performance 50 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-62732-1

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

	Wired	U	f	n	P_e	I	qv	p_{fs}	qv	p_{fs}
		V	Hz	min^{-1}	W	A	m^3/h	Pa	CFM	inH2O
1	Y	400	50	2580	210	0.36	3135	0	1845	0.00
2	Y	400	50	2540	228	0.36	2805	50	1650	0.20
3	Y	400	50	2490	244	0.39	2445	100	1440	0.40
4	Y	400	50	2385	281	0.44	1690	160	995	0.64

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

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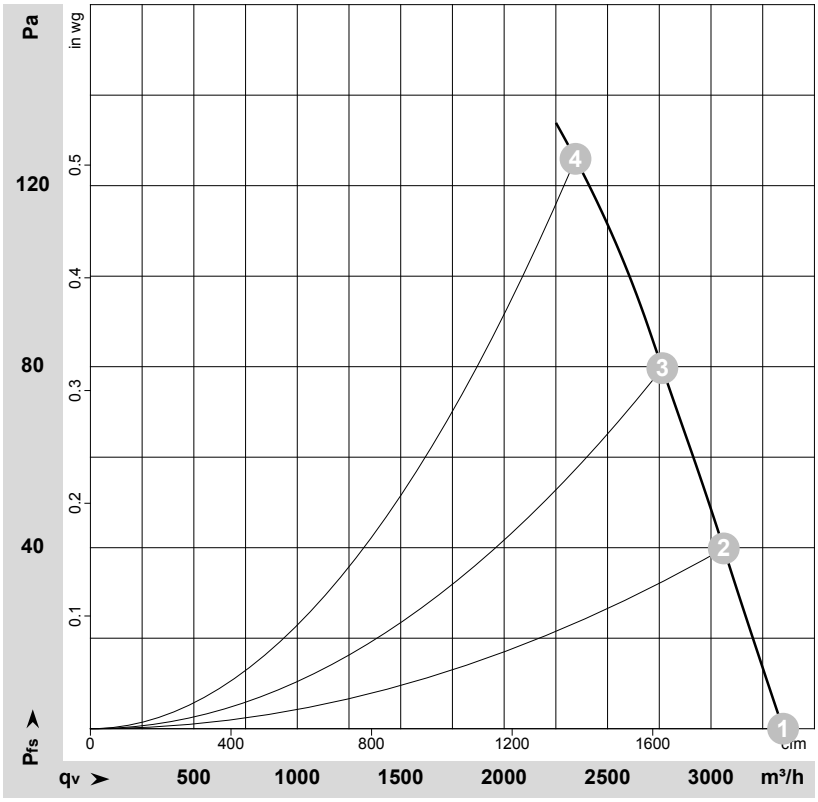
Curves: Air performance 60 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-62733-1

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	qv	p_{fs}	qv	p_{fs}
	V	Hz	min^{-1}	W	A	m^3/h	Pa	CFM	inH2O
1	400	60	2750	300	0.48	3350	0	1970	0.00
2	400	60	2685	316	0.48	3060	40	1800	0.16
3	400	60	2625	331	0.50	2765	80	1625	0.32
4	400	60	2540	349	0.53	2345	125	1380	0.50

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