

AC axial fan

sickle-shaped blades (S series)

Fan housing with guard grille

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Amtsgericht (court of registration) Stuttgart · HRB 590142



Nominal data

Type	W4D400-DP12-40				
Motor	M4D074-EI				
Phase		3~	3~	3~	3~
Nominal voltage	VAC	200	220	230	230
Wiring		Δ	Δ	Δ	Δ
Frequency	Hz	50	60	50	60
Method of obtaining data		fa	fa	fa	fa
Valid for approval/standard		CE	CE	CE	CE
Speed (rpm)	min ⁻¹	1400	1630	1430	1640
Power consumption	W	150	220	175	225
Current draw	A	0.72	0.78	0.92	0.80
Max. back pressure	Pa	100	125	105	125
Max. back pressure	inH ₂ O	0.4	0.5	0.42	0.5
Min. ambient temperature	°C	-40	-40	-40	-40
Max. ambient temperature	°C	65	60	65	60
Starting current	A	2.8	2.8	3.0	3.0

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}	%	32.7	29.1	09 Power consumption P_e	kW 0.19
02 Measurement category		A		09 Air flow q_v	m ³ /h 2595
03 Efficiency category		Static		09 Pressure increase p_{fs}	Pa 91
04 Efficiency grade N		43.6	40	10 Speed (rpm) n	min ⁻¹ 1415
05 Variable speed drive		No		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 = $1 + p_{fs} / 100\,000\text{ Pa}$

LU-27622



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Technical description

Weight	9 kg
Fan size	400 mm
Rotor surface	Painted black
Blade material	Sheet steel, painted black
Fan housing material	Sheet steel, pre-galvanized and coated with black plastic
Guard grille material	Steel, phosphated and coated with black plastic
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"
Moisture (F) / Environmental (H) protection class	H0+
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
Motor protection	Thermal overload protector (TOP) with basic insulation
With cable	Variable
Protection class	I (with customer connection of protective earth)
Conformity with standards	CE
Approval	CCC; UL 1004-1; CSA C22.2 No. 100



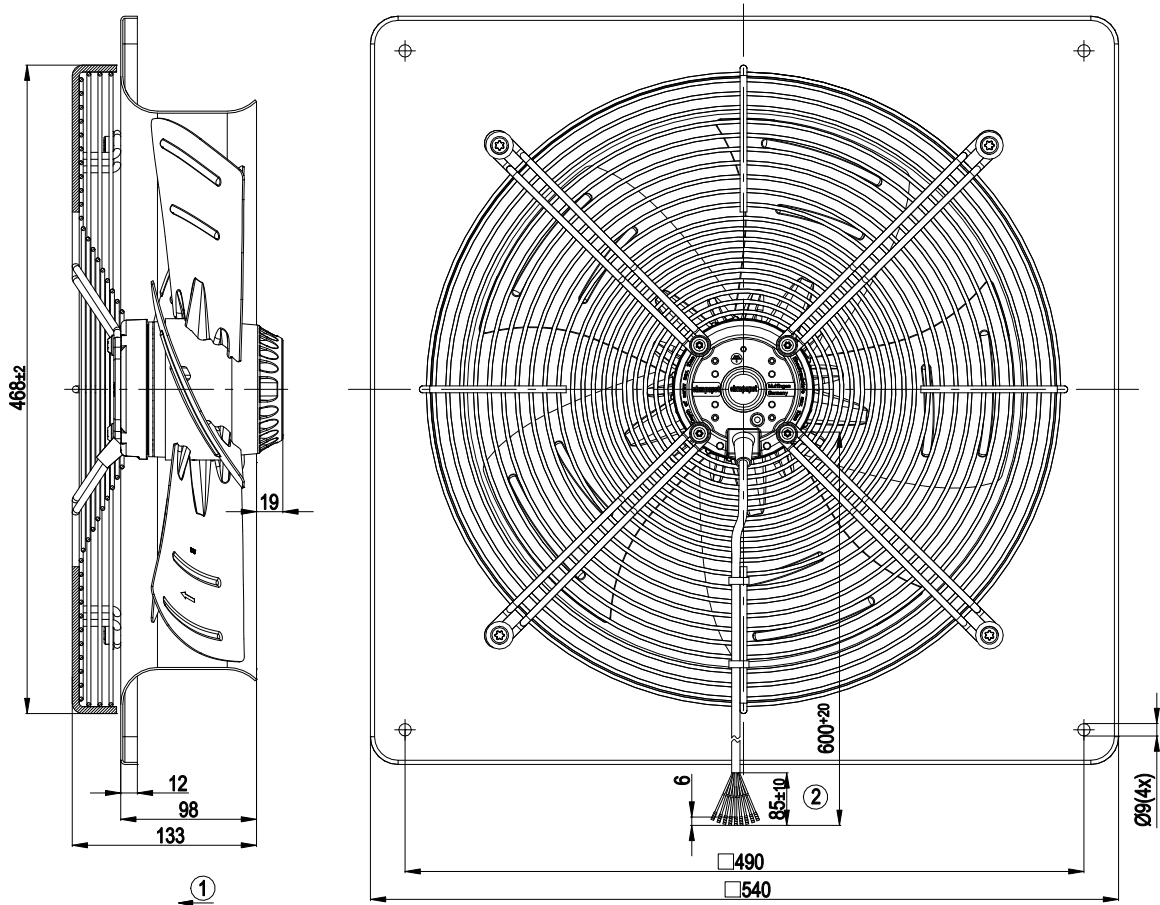
W4D400-DP12-40

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Product drawing



- | | |
|---|---|
| 1 | Direction of air flow "V" |
| 2 | Cable PFA 9G 0.5 mm ² , 9x crimped splices |

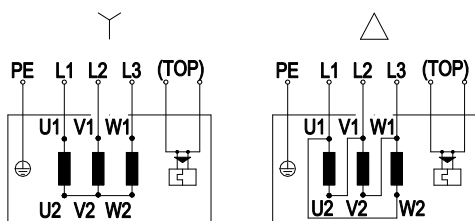


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Connection diagram



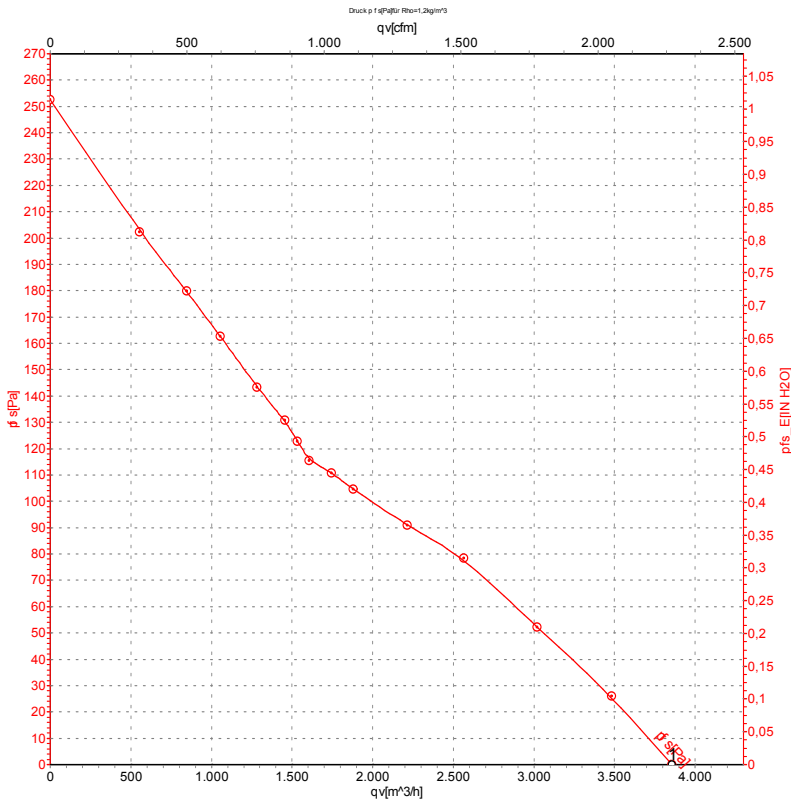
Y	Star connection	Δ	Delta connection	L1	= U1 = black
U2	green	L2	= V1 = blue	V2	white
L3	= W1 = brown	W2	yellow	TOP	2x gray
PE	green/yellow				

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Curves: Air performance 50 Hz Δ



Measurement: LU-50712-1

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	qv	p _{fs}
		V	Hz	min ⁻¹	W	A	m ³ /h	CFM	inH2O
1	Δ	230	50	1430	175	0.92	3855	2270	0.00

Wired = Wiring · U = Power supply · f = Frequency · n = Speed (rpm) · P_e = Power consumption · I = Current draw · qv = Air flow

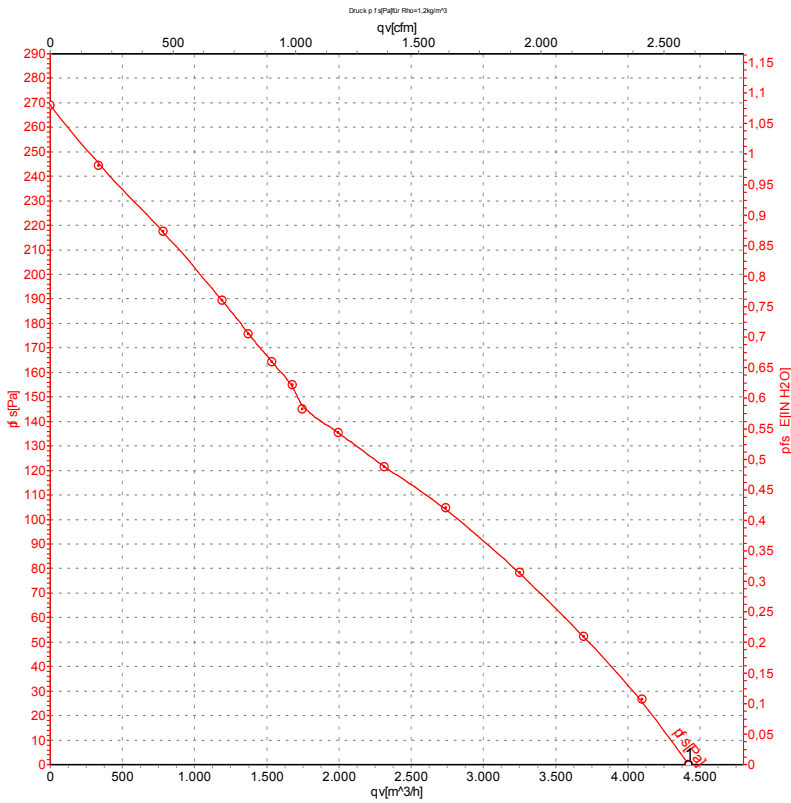


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Curves: Air performance 60 Hz Δ



Measurement: LU-50713-1

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	qv	p _{fs}
		V	Hz	min ⁻¹	W	A	m ³ /h	CFM	inH ₂ O
1	Δ	230	60	1640	225	0.80	4420	2605	0.00

Wired = Wiring · U = Power supply · f = Frequency · n = Speed (rpm) · P_e = Power consumption · I = Current draw · qv = Air flow

