



Nominal data

Type	W4D450-CO10-80		
Motor	M4D094-HA		
Phase		3~	3~
Nominal voltage	VAC	277	480
Connection		Δ	Y
Frequency	Hz	60	60
Type of data definition		fa	fa
Valid for approval / standard		CE	CE
Speed	min ⁻¹	1640	1640
Power input	W	620	620
Current draw	A	1.82	1.05
Max. back pressure	Pa	110	110
Min. ambient temperature	°C	-40	-40
Max. ambient temperature	°C	65	65

ml = max. load · me = max. efficiency · fa = running at free air · cs = customer specs · cu = customer unit
Subject to alterations

Data according to ErP directive

		Actual	Request 2013	Request 2015	
Installation category	A	Overall efficiency η_{es}	33.9	27.5	31.5
Efficiency category	Static	Efficiency grade N	42.4	36	40
Variable speed drive	No	Power input P_e	kW	0.45	
Specific ratio*	1.00	Air flow q_v	m³/h	4530	
		Pressure increase p_{fs}	Pa	124	
		Speed n	min⁻¹	1375	

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

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Data established at point of optimum efficiency



AC axial fan

sickled blades (S series)

with full round nozzle

Technical features

Mass	12.5 kg
Size	450 mm
Surface of rotor	Coated in black
Material of terminal box	Die-cast aluminium
Material of blades	Press-fitted sheet steel blank, sprayed with PP plastic
Material of wall ring	Sheet steel, pre-galvanised and coated in grey plastic (RAL 9006)
Material of guard grille	Steel, coated in grey plastic (RAL 9006)
Number of blades	5
Direction of air flow	"A"
Direction of rotation	Clockwise, seen on rotor
Type of protection	IP 54
Insulation class	"F"
Humidity class	F4-1
Max. permissible ambient motor temp. (transp./ storage)	+80 °C
Min. permissible ambient motor temp. (transp./storage)	-40 °C
Mounting position	Shaft horizontal or rotor on top; rotor on bottom on request
Condensate discharge holes	On the stator side
Operation mode	S1
Motor bearing	Ball bearing
Touch current acc. IEC 60990 (measuring network Fig. 4, TN system)	<= 3.5 mA
Electrical leads	Via terminal box, integrated capacitor connected via terminal box
Motor protection	Thermal overload protector (TOP) brought out
Protection class	I (if protective earth is connected by customer)
Product conforming to standard	EN 60034-1 (2004); CE
Approval	UL 1004-1

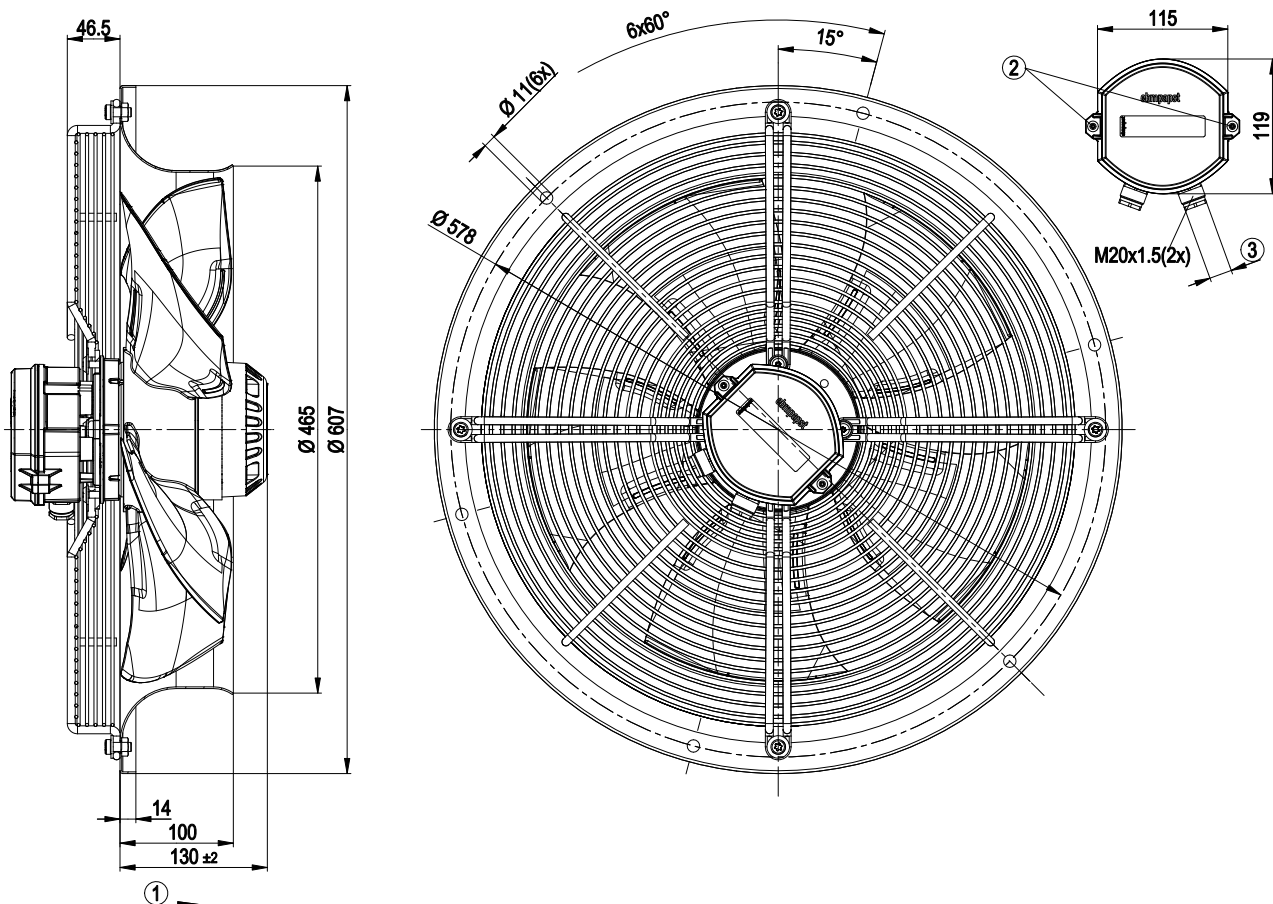


AC axial fan

sickled blades (S series)

with full round nozzle

Product drawing

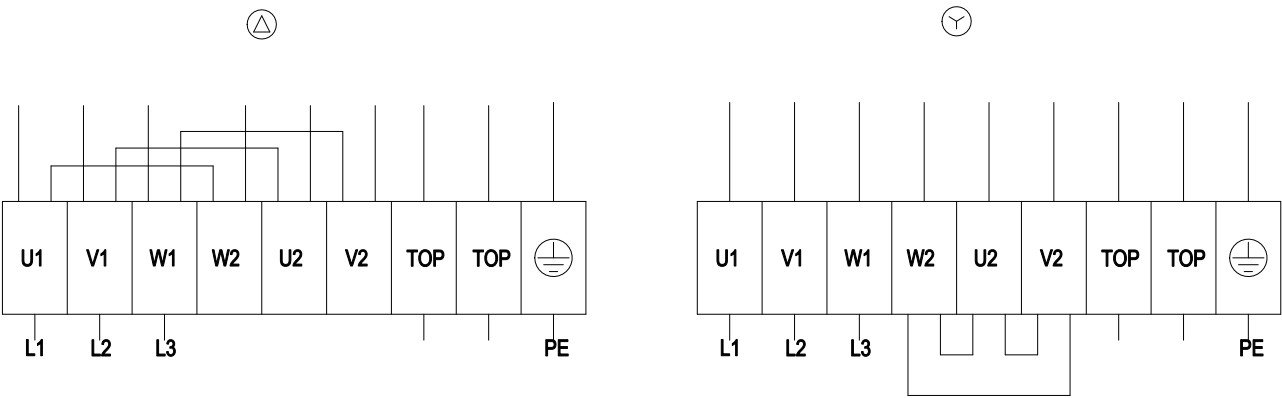


1	Direction of air flow "A"
2	Tightening torque 2.0 ± 0.2 Nm
3	Cable diameter: min. 10 mm, max. 12 mm, tightening torque: 2 ± 0.2 Nm

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Connection screen



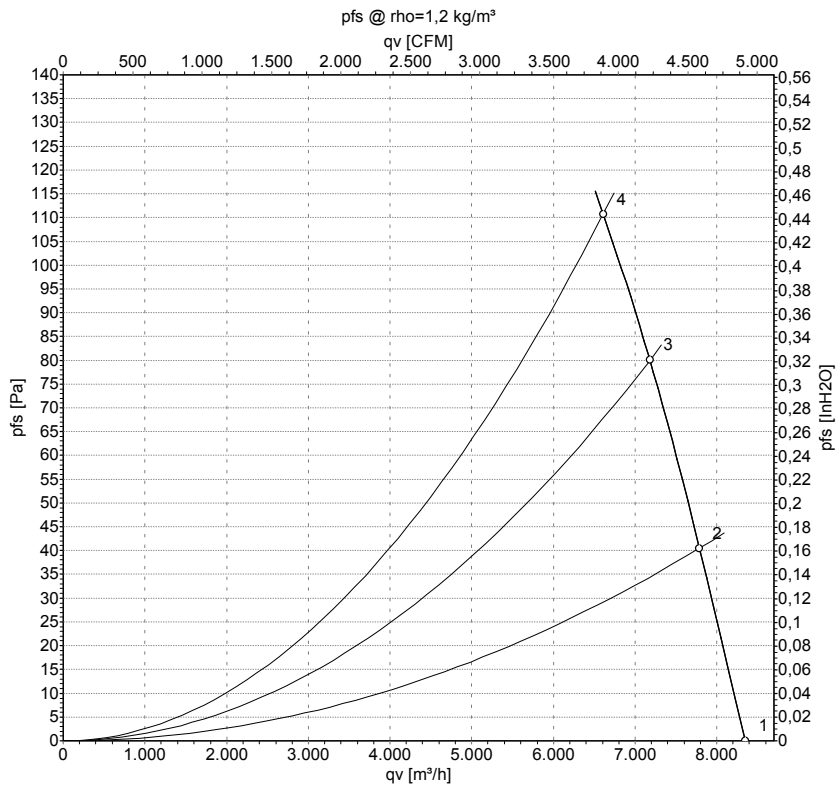
Δ	Delta-connection	Y	Star connection	L1	= U1 = black
L2	= V1 = blue	L3	= W1 = brown	W2	yellow
U2	green	V2	white	TOP	2 x grey
PE	green / yellow				



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Charts: Air flow 60 Hz



Measurement: LU-116997

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: LwA measured as per ISO 13347 /
LpA 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

	Conn.	U	f	n	P _e	I	qv	p _{fs}
		V	Hz	min ⁻¹	W	A	m³/h	Pa
1	Y	480	60	1640	620	1.05	8350	0
2	Y	480	60	1635	658	1.07	7790	40
3	Y	480	60	1625	691	1.11	7180	80
4	Y	480	60	1620	718	1.15	6610	110

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

