AC axial fan - HyBlade®

sickled blades (S series)

with full round nozzle

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Nominal data

Type	**W4D450-CO14-01**
Motor	**M4D094-HA**

Phase		3~	3~	3~	3~	3~	3~
Nominal voltage	VAC	400	400	400	400	480	480
Connection		Δ	Y	Δ	Y	Δ	Y
Frequency	Hz	50	50	60	60	60	60
Type of data definition		ml	ml	ml	ml	ml	ml
Valid for approval / standard		CE	CE	CE	CE	CE	CE
Speed	min^{-1}	1360	1110	1510	1060	1600	1240
Power input	W	480	340	690	400	760	520
Current draw	A	0.98	0.58	1.2	0.72	1.17	0.75
Max. back pressure	Pa	140	90	145	70	160	95
Max. ambient temperature	°C	65	65	50	50	50	50

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

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Technical features

Mass	12.5 kg
Size	450 mm
Surface of rotor	Coated in black
Material of terminal box	ABS plastic, black
Material of blades	Press-fitted sheet steel blank, sprayed with PP plastic
Material of wall ring	Sheet steel, pre-galvanised and coated in black plastic
Material of guard grille	Steel, phosphated and coated in black plastic
Number of blades	5
Direction of air flow	"V"
Direction of rotation	Counter-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 bottom; rotor on top on request
Condensate discharge holes	Rotor-side
Operation mode	S1
Motor bearing	Ball bearing
Leakage current	<= 3.5 mA
Electrical leads	Via terminal box
Motor protection	Thermal overload protector (TOP) brought out
Protection class	I
Product conforming to standard	EN 60034-1 (2004); CE

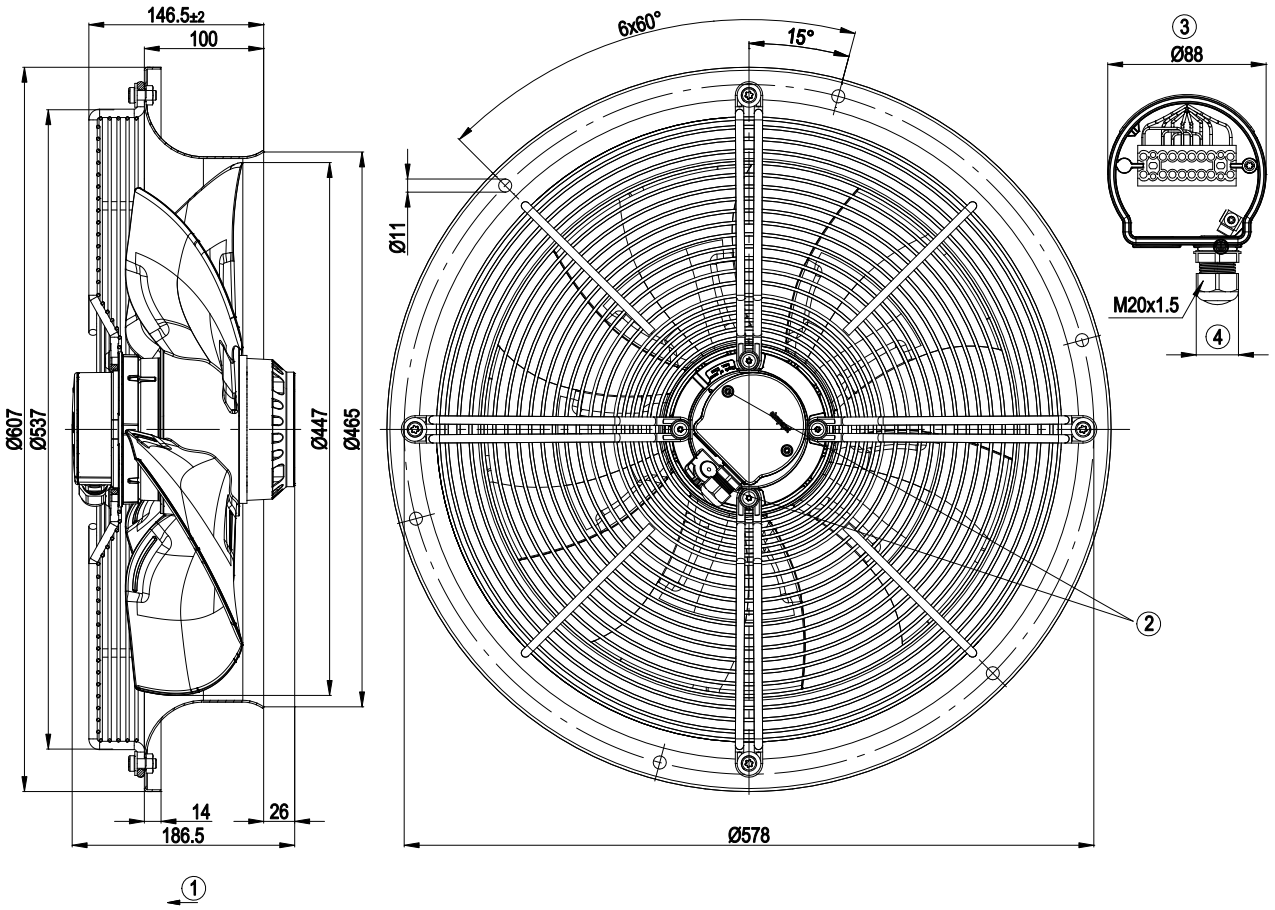
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Product drawing



1	Direction of air flow "V"
2	Tightening torque 1.5±0.2 Nm
3	Illustration without terminal box cover
4	Cable diameter: min. 6 mm, max. 12 mm; tightening torque: 2.0±0.15 Nm

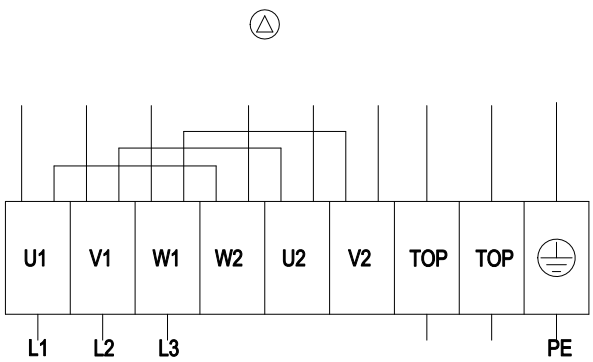
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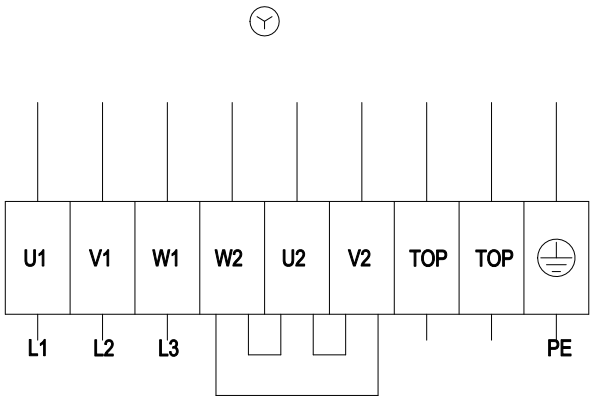
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Connection screen





Note: Direction of rotation changes when two phases are reversed

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				

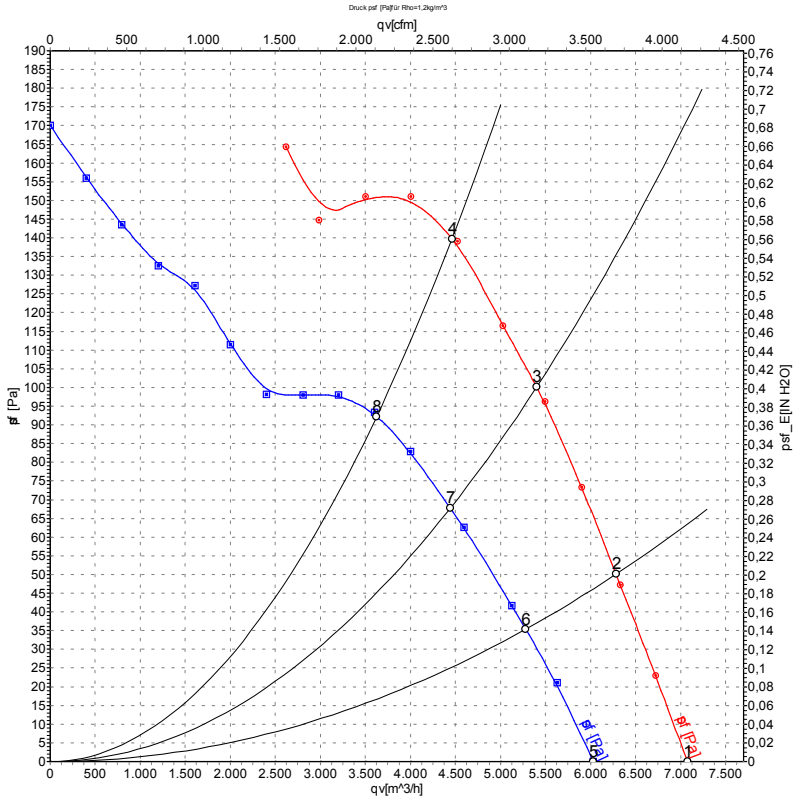
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Charts: Air flow 50 Hz



Measurement: LU-107893
Measurement: LU-107309

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	LpA_{in}	LwA_{in}	LwA_{out}	qv	p_{sf}
		V	Hz	min^{-1}	W	A	dB(A)	dB(A)	dB(A)	m^3/h	Pa
1	Δ	400	50	1400	386	0.88	65	71		7080	0
2	Δ	400	50	1385	422	0.91	62	68		6285	50
3	Δ	400	50	1370	453	0.95	61	68		5400	100
4	Δ	400	50	1360	480	0.98	62	68		4460	140
5	Y	400	50	1195	285	0.49	63	68	69	6030	0
6	Y	400	50	1160	308	0.52	59	65	65	5280	35
7	Y	400	50	1130	326	0.55	57	64	64	4445	68
8	Y	400	50	1110	340	0.58	57	64	64	3625	93

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