AC axial fan - HyBlade®

sickled blades (S series)

ebm-papst Mulfingen GmbH & Co. KG
Bachmühle 2
74673 Mulfingen
Phone: +49 7938 81-0
Fax: +49 7938 81-110
www.ebmpapst.com
info1@de.ebmpapst.com

Nominal data

Type	**A4D500-AM01-03**
Motor	**M4D110-GF**

Phase		3~	3~	3~	3~	3~	3~
Nominal voltage	[V]	230	230	277	400	400	480
Connection		**D**	**D**	**D**	Y	Y	Y
Frequency	[Hz]	50	60	60	50	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}]	1350	1510	1590	1350	1510	1590
Power input	[W]	690	950	1050	690	950	1050
Current draw	[A]	2,34	2.77	2.72	1.35	1.6	1.57
Max. back pressure	[Pa]	155	145	160	155	145	160
Max. ambient temperature	[°C]	65	60	60	65	60	60
Air flow	[m^3/h]	9120	10400	10830	9120	10400	10830
Back pressure	[Pa]	0	0	0	0	0	0
Sound power level	[dB(A)]	75		79	75		79
Sound pressure level	[dB(A)]	68		71	68		71

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

AC axial fan - HyBlade®

sickled blades (S series)

Technical features

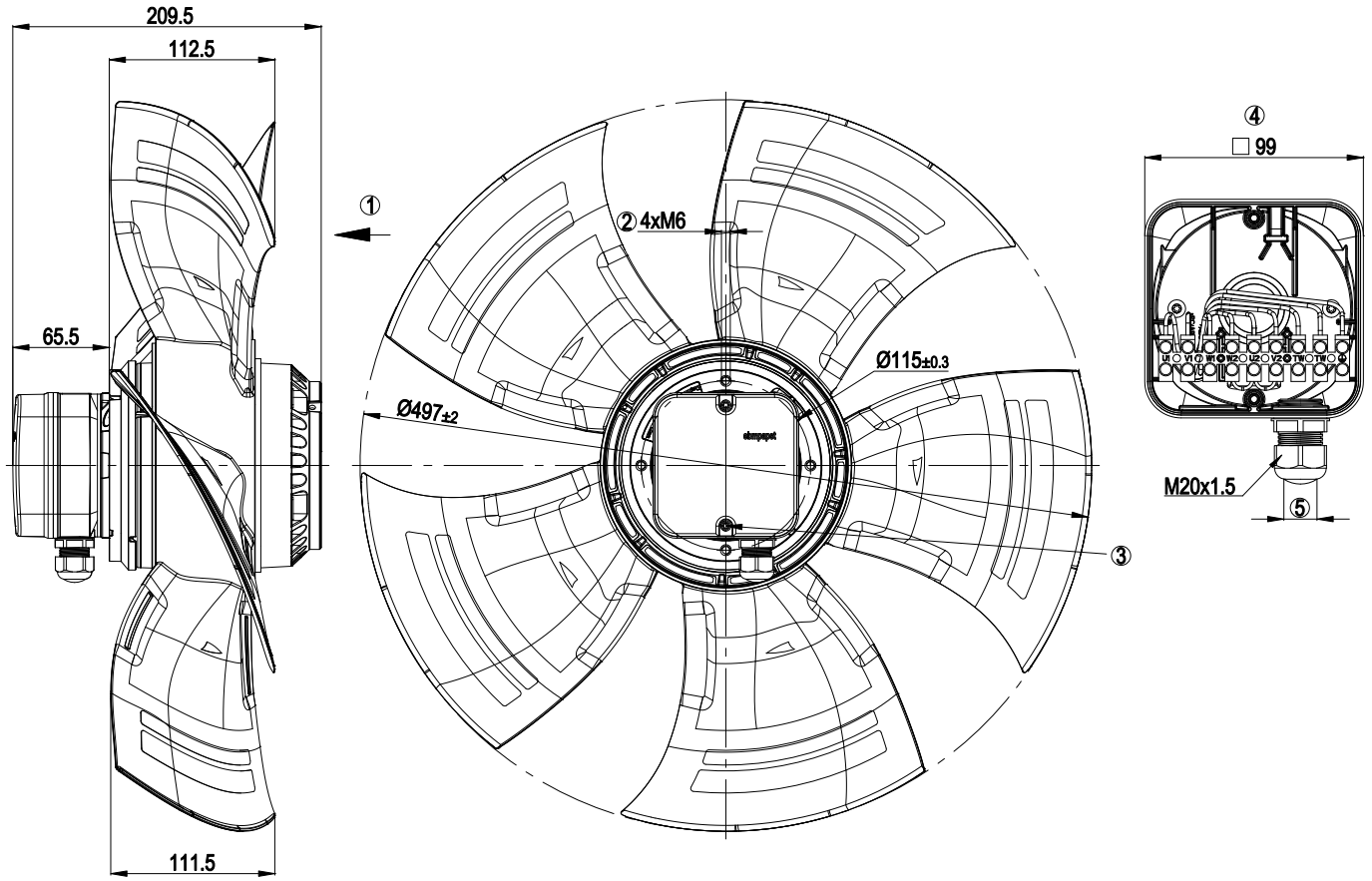
Leackage current	<= 3,5 mA
Size	500 mm
Line	HyBlade
Operation mode	S1
Direction of rotation	Counter-clockwise, seen on rotor
Mounting position	Shaft horizontal or rotor on bottom; rotor on top on request
Electrical leads	Via terminal box
Direction of air flow	"V"
Insulation class	"F"
Cable exit	Axial
Condensate discharge holes	Rotor-side
Bearing motor	Ball bearing
Mass	10.5 kg
Material of terminal box	PC/ABS plastic, black
Material of blades	Press-fitted sheet steel blank, sprayed with PP plastic
Motor protection	Thermal overload protector (TOP) brought out
Product conforming to standard	CE; EN 61800-5-1
Surface of rotor	Coated in black
Number of blades	5
Type of protection	IP 54
Protection class	I
Max. permissible ambient motor temp. (transp./ storage)	+ 80 °C
Min. permissible ambient motor temp. (transp./storage)	- 40 °C
Approval	CSA C22.2 Nr.100; GOST; UL 1004

ebm-papst Mulfingen GmbH & Co. KG · Bachmühle 2 · 74673 Mulfingen · Phone: +49 7938 81-0 · Fax: +49 7938 81-110 · www.ebmpapst.com · info1@de.ebmpapst.com

AC axial fan - HyBlade®

sickled blades (S series)

Product drawing



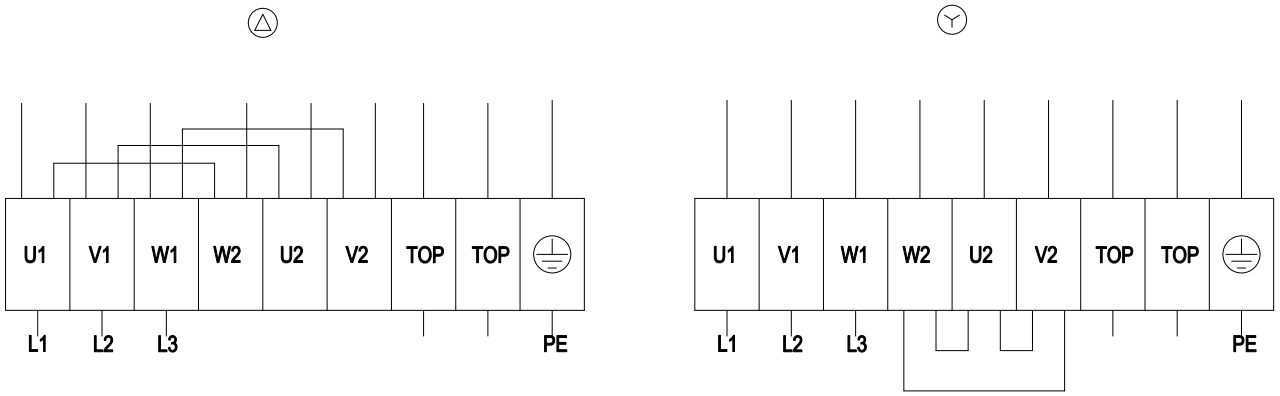
1	Direction of air flow "V"
2	Depth of screw max. 12 mm
3	Tightening torque 0.8 Nm
4	Illustration without terminal box cover
5	Cable diameter: min. 6 mm, max. 12 mm, tightening torque: 2 Nm

ebm-papst Mulfingen GmbH & Co. KG · Bachmühle 2 · 74673 Mulfingen · Phone: +49 7938 81-0 · Fax: +49 7938 81-110 · www.ebmpapst.com · info1@de.ebmpapst.com

AC axial fan - HyBlade®

sickled blades (S series)

Connection screen



Note: Direction of rotation changes when two phases are reversed

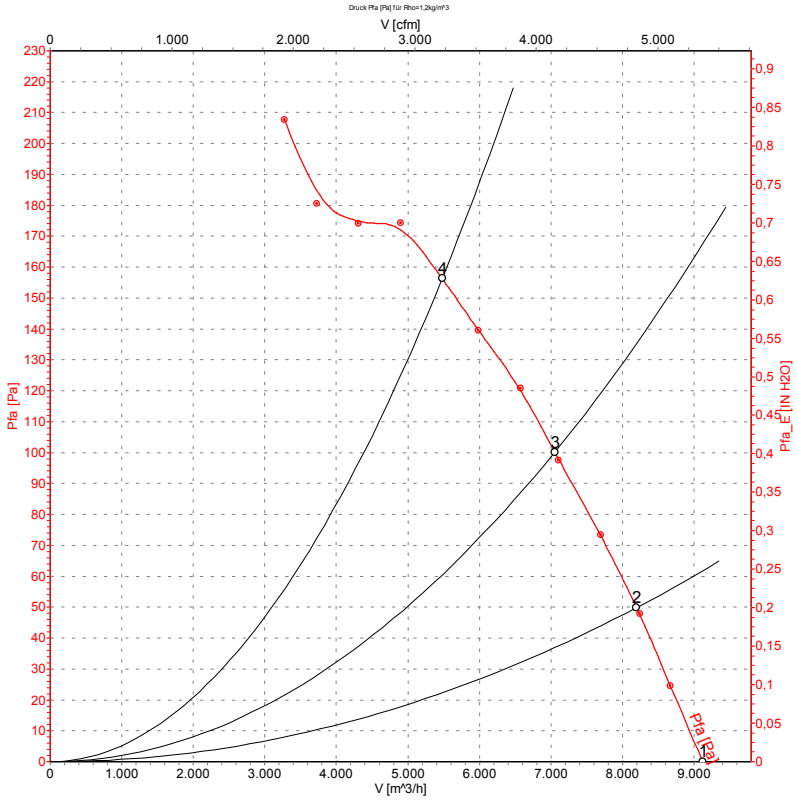
Δ	Delta-connection	Y	Star connection	L1	= U1 = black
L2	= V1 = blue	L3	= W1 = brown	W2	yellow
U2	green	V2	white	TOP	2 x grey
PE	green / yellow				

ebm-papst Mulfingen GmbH & Co. KG · Bachmühle 2 · 74673 Mulfingen · Phone: +49 7938 81-0 · Fax: +49 7938 81-110 · www.ebmpapst.com · info1@de.ebmpapst.com

AC axial fan - HyBlade®

sickled blades (S series)

Charts: Air flow 50 Hz



Measurement: LU-110665

Measured values

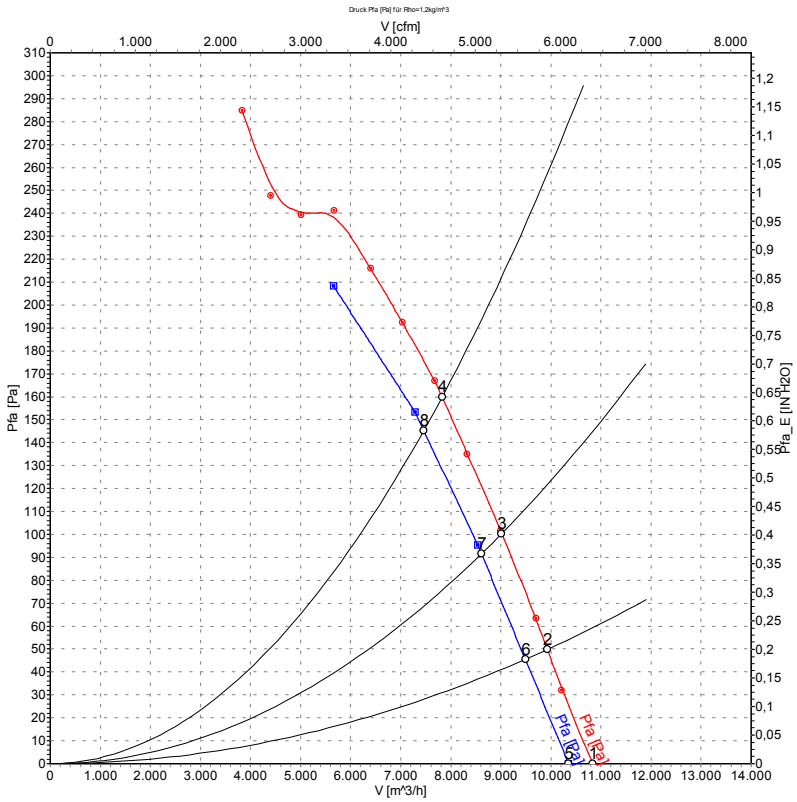
	Conn.	U	f	n	P_1	I	LpA_{ss}	LpA_{ds}	LwA_{ss}	LwA_{ds}	$\dot{V}$	p_{fa}
		[V]	[Hz]	[min^{-1}]	[W]	[A]	[dB(A)]	[dB(A)]	[dB(A)]	[dB(A)]	[m^3/h]	[Pa]
1	Y	400	50	1400	505	1.15	68	60	75	75	9120	0
2	Y	400	50	1380	567	1.22	66	57	72	73	8195	50
3	Y	400	50	1365	623	1.27	64	55	71	71	7055	100
4	Y	400	50	1350	690	1.35	65	56	72	72	5480	155

ebm-papst Mulfingen GmbH & Co. KG · Bachmühle 2 · 74673 Mulfingen · Phone: +49 7938 81-0 · Fax: +49 7938 81-110 · www.ebmpapst.com · info1@de.ebmpapst.com

AC axial fan - HyBlade®

sickled blades (S series)

Charts: Air flow 60 Hz



Measurement: LU-110667
Measurement: LU-110708

Measured values

	Conn.	U	f	n	P_1	I	LpA_{ss}	LpA_{ds}	LwA_{ss}	LwA_{ds}	$\dot{V}$	p_{fa}
		[V]	[Hz]	[min^{-1}]	[W]	[A]	[dB(A)]	[dB(A)]	[dB(A)]	[dB(A)]	[m^3/h]	[Pa]
1	Y	480	60	1650	817	1.33	71	64	78	79	10830	0
2	Y	480	60	1630	891	1.40	69	62	77	77	9930	50
3	Y	480	60	1615	960	1.47	68	59	75	75	9015	100
4	Y	480	60	1590	1050	1.57	67	58	74	74	7825	160
5	Y	400	60	1590	762	1.32	70	64	77	78	10350	0
6	Y	400	60	1565	820	1.41	68	61	76	76	9490	46
7	Y	400	60	1540	879	1.49	67	58	74	74	8610	92
8	Y	400	60	1510	950	1.60	66	57	73	73	7460	145

ebm-papst Mulfingen GmbH & Co. KG · Bachmühle 2 · 74673 Mulfingen · Phone: +49 7938 81-0 · Fax: +49 7938 81-110 · www.ebmpapst.com · info1@de.ebmpapst.com