



A4D500-AM01-03 ebmpapst Datasheet  
 sales@fansco.com  
 www.fansco.com

Limited partnership · Headquarters Mulfingen  
 County court Stuttgart · HRA 590344

General partner Elektrobau Mulfingen GmbH · Headquarters Mulfingen  
 County court Stuttgart · HRB 590142

## Nominal data

<b>Type</b>	A4D500-AM01-03						
<b>Motor</b>	M4D110-GF						
Phase		3~	3~	3~	3~	3~	3~
Nominal voltage	VAC	230	230	277	400	400	480
Connection		Δ	Δ	Δ	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 (rpm)	min <sup>-1</sup>	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
Min. ambient temperature	°C	-40	-40	-40	-40	-40	-40
Max. ambient temperature	°C	65	60	60	65	60	60
Starting current	A	10.6	9.7	12.1	6.1	5.6	7.0

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 2015		
01 Overall efficiency $\eta_{ES}$	%	33.3	32.5	09 Power input $P_e$	kW 0.66
02 Measurement category	A			09 Air flow $q_v$	m <sup>3</sup> /h 5985
03 Efficiency category	Static			09 Pressure increase $p_{fs}$	Pa 134
04 Efficiency grade N	40.8	40		10 Speed (rpm) n	min <sup>-1</sup> 1355
05 Variable speed drive	No			11 Specific ratio*	1.00

Data definition with optimum efficiency.  
 The ErP data is determined using a motor-impeller combination in a standardised measurement configuration.

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

LU-110665

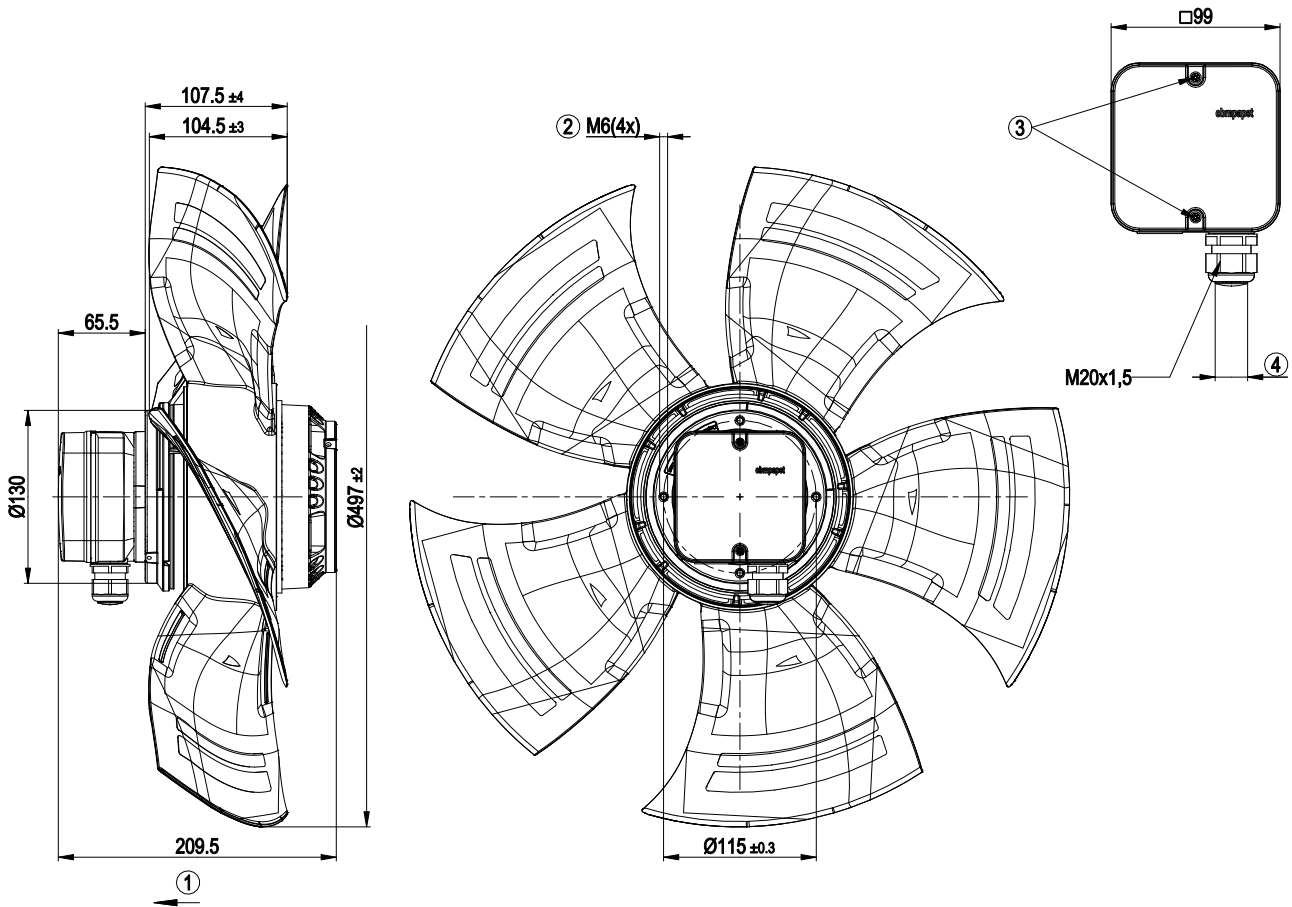


### Technical features

Mass	9.8 kg
Size	500 mm
Surface of rotor	Coated in black
Material of terminal box	PC / ABS plastic
Material of blades	Press-fitted sheet steel blank, sprayed with PP 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 (F)/environmental protection class (H)	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
Touch current acc. IEC 60990 (measuring network Fig. 4, TN system)	<= 3.5 mA
Electrical leads	Via terminal box
Motor protection	Thermal overload protector (TOP) brought out, basic insulation
Cable exit	Axial
Protection class	I (if protective earth is connected by customer)
Product conforming to standard	EN 61800-5-1; CE
Approval	UL 1004-1; VDE; CCC; EAC; CSA C22.2 No.100



Product drawing



1	Direction of air flow "V"
2	Depth of screw max. 12 mm
3	Tightening torque 1.5±0.2 Nm
4	Cable diameter: min. 6 mm, max. 12 mm, tightening torque: 2±0.3 Nm



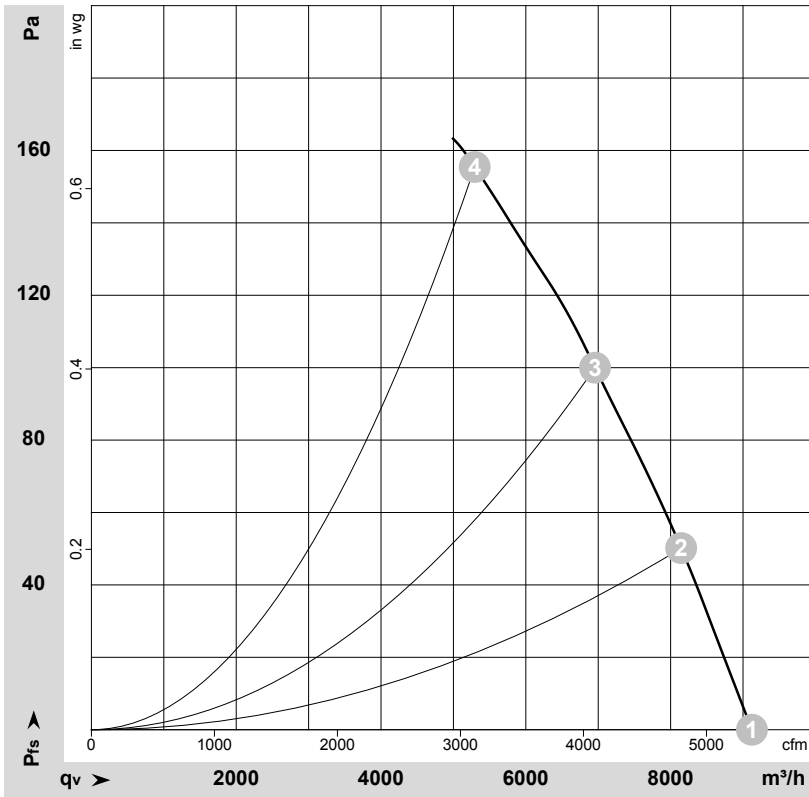
## Connection screen



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



## Charts: Air flow 50 Hz



$\rho = 1.15 \text{ kg/m}^3 \pm 2 \%$

Measurement: LU-110665-1

Air performance measured as per ISO 5801 Installation category A. For detailed information on the measuring set-up, please contact ebmpapst. 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.

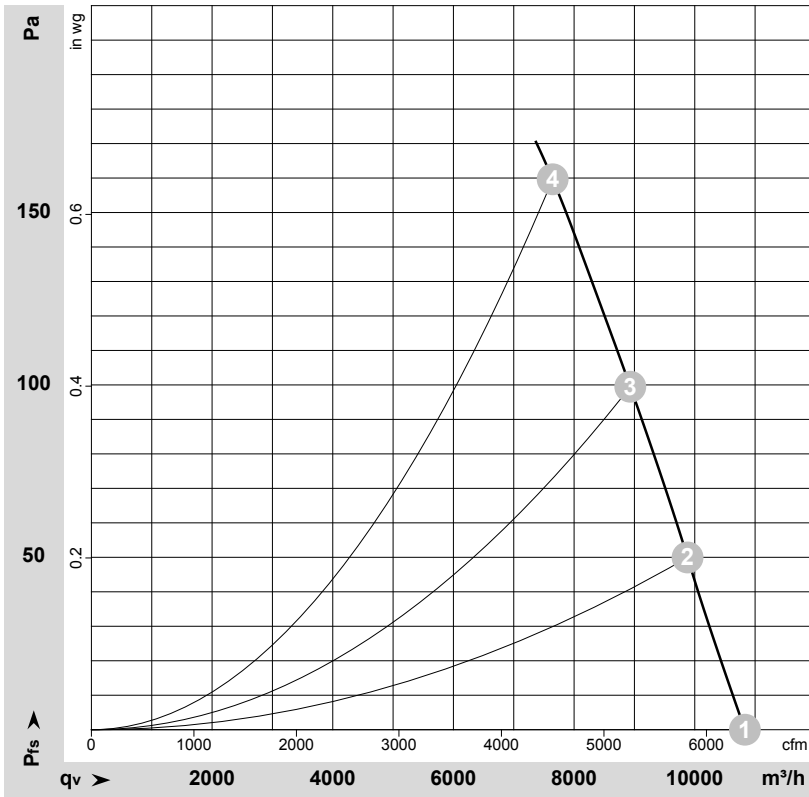
## Measured values

	Conn.	U	f	n	P <sub>e</sub>	I	LpA <sub>in</sub>	LwA <sub>in</sub>	LwA <sub>out</sub>	q <sub>v</sub>	p <sub>fs</sub>	q <sub>v</sub>	p <sub>fs</sub>
		V	Hz	min <sup>-1</sup>	W	A	dB(A)	dB(A)	dB(A)	m <sup>3</sup> /h	Pa	cfm	inH2O
1	Y	400	50	1400	505	1.15	68	75	75	9125	0	5370	0.00
2	Y	400	50	1380	570	1.22	65	72	73	8145	50	4795	0.20
3	Y	400	50	1365	626	1.27	64	71	71	6955	100	4095	0.40
4	Y	400	50	1350	690	1.35	66	73	72	5295	155	3115	0.62

Conn. = Connection · U = Supply voltage · f = Frequency · n = Speed (rpm) · P<sub>e</sub> = Power input · I = Current draw · LpA<sub>in</sub> = Sound pressure level inlet side · LwA<sub>in</sub> = Sound power level inlet side  
 LwA<sub>out</sub> = Sound power level outlet side · q<sub>v</sub> = Air flow · p<sub>fs</sub> = Pressure increase



## Charts: Air flow 60 Hz



$\rho = 1.15 \text{ kg/m}^3 \pm 2 \%$

Measurement: LU-110667-1

Air performance measured as per ISO 5801 Installation category A. For detailed information on the measuring set-up, please contact ebmpapst. Suction-side noise levels: L<sub>wA</sub> measured as per ISO 13347 / L<sub>pA</sub> 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 <sub>e</sub>	I	L <sub>pA<sub>in</sub></sub>	L <sub>wA<sub>in</sub></sub>	L <sub>wA<sub>out</sub></sub>	q <sub>v</sub>	p <sub>fs</sub>	q <sub>v</sub>	p <sub>fs</sub>
		V	Hz	min <sup>-1</sup>	W	A	dB(A)	dB(A)	dB(A)	m <sup>3</sup> /h	Pa	cfm	inH <sub>2</sub> O
1	Y	480	60	1650	817	1.33	71	78	79	10830	0	6375	0.00
2	Y	480	60	1630	895	1.41	69	76	77	9880	50	5815	0.20
3	Y	480	60	1615	966	1.48	68	75	75	8930	100	5255	0.40
4	Y	480	60	1590	1050	1.57	67	74	75	7645	160	4500	0.64

Conn. = Connection · U = Supply voltage · f = Frequency · n = Speed (rpm) · P<sub>e</sub> = Power input · I = Current draw · L<sub>pA<sub>in</sub></sub> = Sound pressure level inlet side · L<sub>wA<sub>in</sub></sub> = Sound power level inlet side  
 L<sub>wA<sub>out</sub></sub> = Sound power level outlet side · q<sub>v</sub> = Air flow · p<sub>fs</sub> = Pressure increase

