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Limited partnership · Headquarters Mulfingen  
County court Stuttgart · HRA 590344General partner Elektrobau Mulfingen GmbH · Headquarters Mulfingen  
County court Stuttgart · HRB 590142**Nominal data**

<b>Type</b>	<b>A4D500-AM03-01</b>				
<b>Motor</b>	<b>M4D110-GF</b>				
Phase		3~	3~	3~	3~
Nominal voltage	VAC	400	400	400	460
Connection		$\Delta$	Y	$\Delta$	$\Delta$
Frequency	Hz	50	50	60	60
Type of data definition		ml	ml	ml	ml
Valid for approval / standard		CE	CE	CE	CE
Speed (rpm)	min <sup>-1</sup>	1390	1180	1590	1640
Power input	W	720	550	1020	1060
Current draw	A	1.41	0.9	1.7	1.64
Max. back pressure	Pa	140	100	130	138
Min. ambient temperature	°C	-40	-40	-40	-40
Max. ambient temperature	°C	65	65	50	60
Starting current	A	6.5	2.2	5.9	6.8

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 $\eta_{es}$	%	33.4	32.8	09 Power input $P_e$	kW	0.73
02 Measurement category		A		09 Air flow $q_v$	m <sup>3</sup> /h	5860
03 Efficiency category		Static		09 Pressure increase $p_{fs}$	Pa	151
04 Efficiency grade N		40.6	40	10 Speed (rpm) n	min <sup>-1</sup>	1385
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 =  $1 + p_g / 100\,000\text{ Pa}$ 

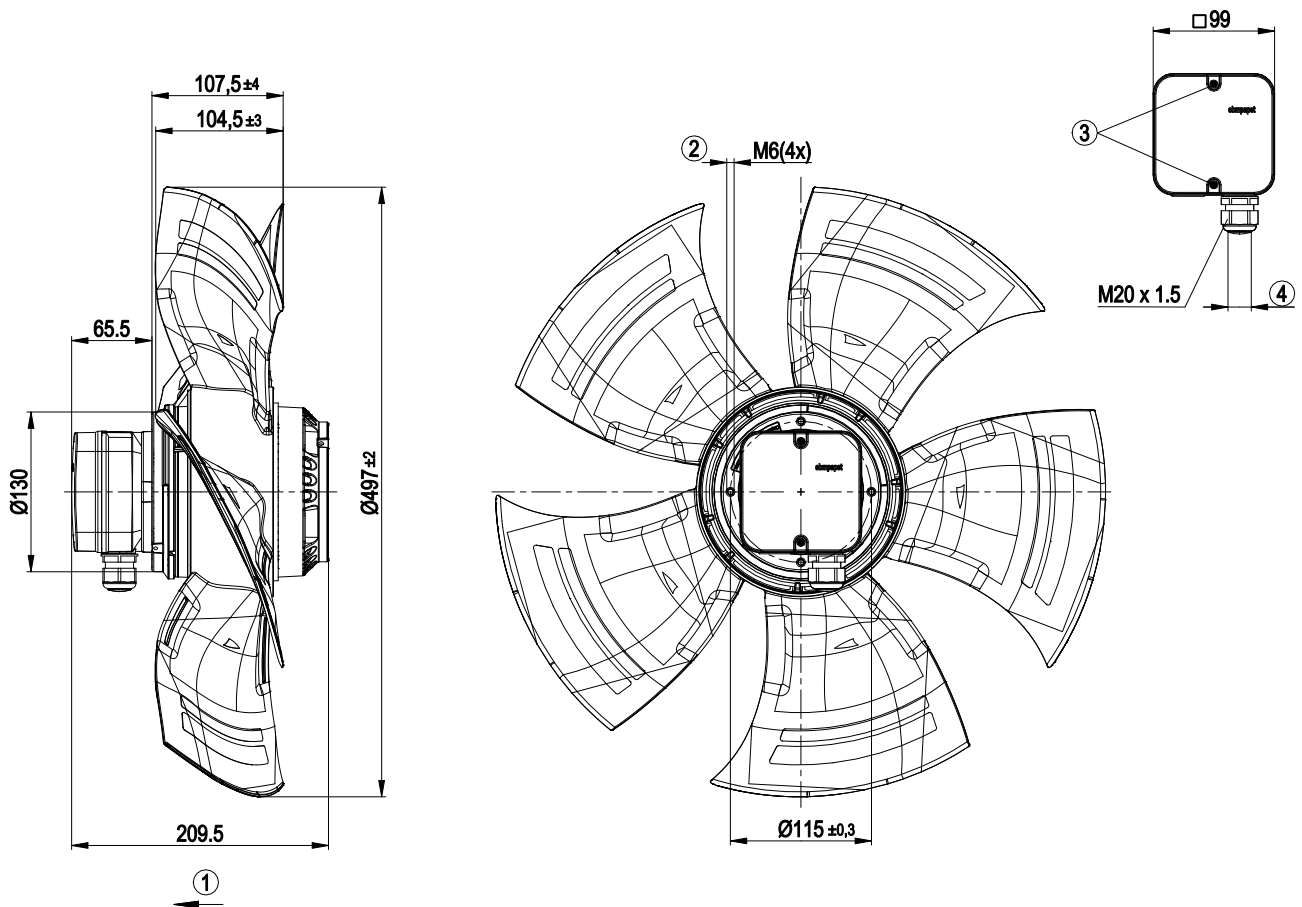
LU-106631



## Technical features

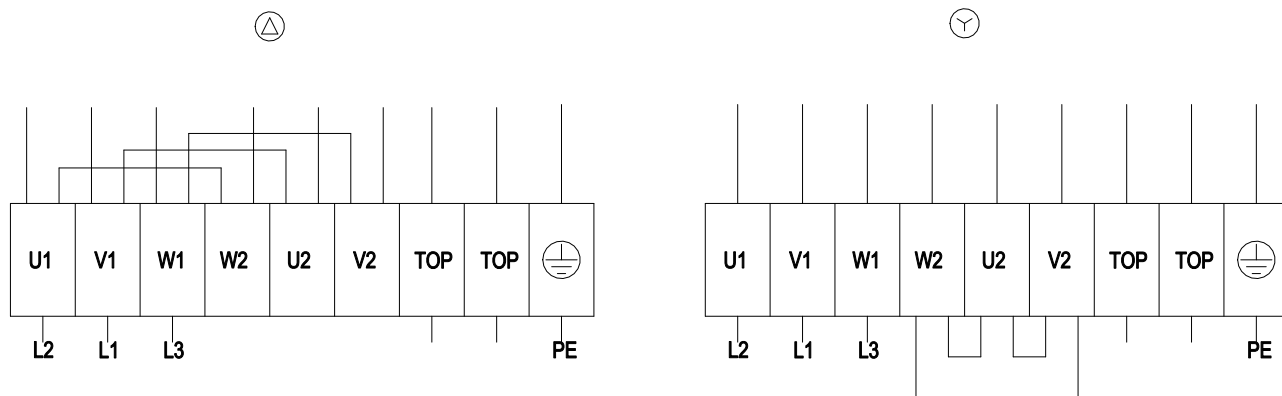
<b>Mass</b>	9.8 kg
<b>Size</b>	500 mm
<b>Surface of rotor</b>	Coated in black
<b>Material of terminal box</b>	PP plastic
<b>Material of blades</b>	Press-fitted sheet steel blank, sprayed with PP plastic
<b>Number of blades</b>	5
<b>Direction of air flow</b>	"V"
<b>Direction of rotation</b>	Counter-clockwise, seen on rotor
<b>Type of protection</b>	IP 54
<b>Insulation class</b>	"F"
<b>Humidity (F)/environmental protection class (H)</b>	F4-1
<b>Max. permissible ambient motor temp. (transp./ storage)</b>	+ 80 °C
<b>Min. permissible ambient motor temp. (transp./storage)</b>	- 40 °C
<b>Mounting position</b>	Shaft horizontal or rotor on bottom; rotor on top on request
<b>Condensate discharge holes</b>	Rotor-side
<b>Operation mode</b>	S1
<b>Motor bearing</b>	Ball bearing
<b>Touch current acc. IEC 60990 (measuring network Fig. 4, TN system)</b>	<= 3.5 mA
<b>Electrical leads</b>	Via terminal box
<b>Motor protection</b>	Thermal overload protector (TOP) brought out, basic insulation
<b>Cable exit</b>	Axial
<b>Protection class</b>	I (if protective earth is connected by customer)
<b>Product conforming to standard</b>	EN 61800-5-1; CE
<b>Approval</b>	CCC; VDE; EAC

## Product drawing



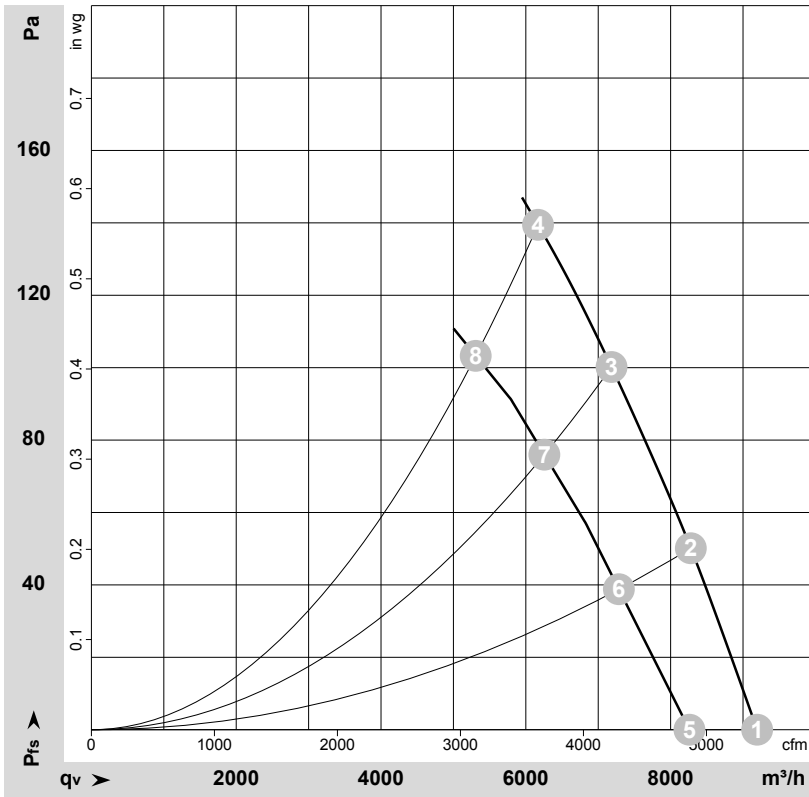
1	Direction of air flow "V"
2	Depth of screw max. 12 mm
3	Tightening torque $1.5 \pm 0.2$ Nm
4	Cable diameter: min. 6 mm, max. 12 mm; tightening torque: $2 \pm 0.3$ Nm

## 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-106631-1  
Measurement: LU-106885-1

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.

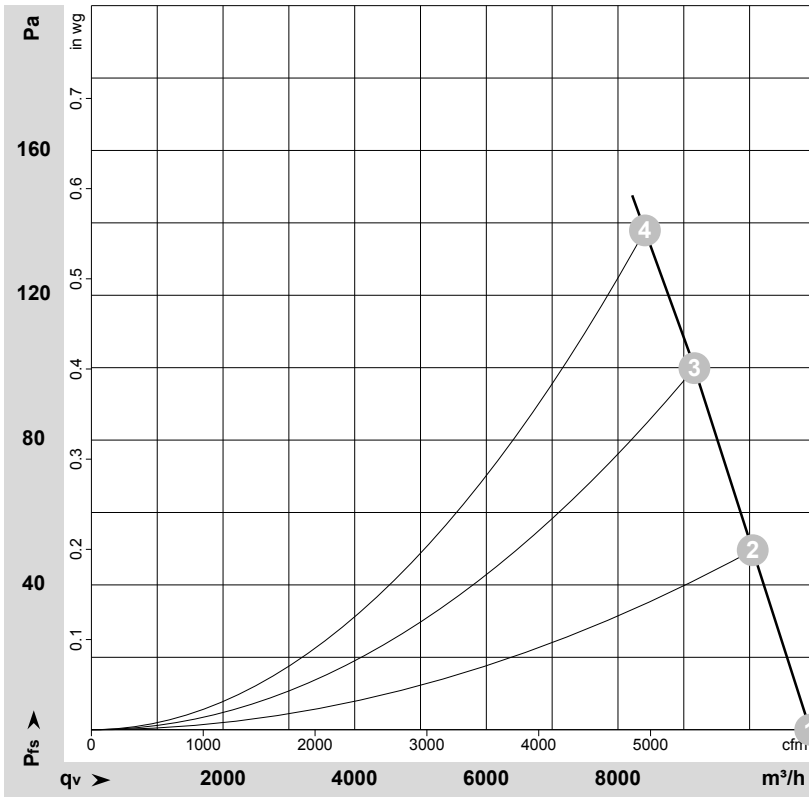
## Measured values

	Conn.	U	f	n	P <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	inH <sub>2</sub> O
1	Δ	400	50	1420	540	1.20	68	75	75	9195	0	5410	0.00
2	Δ	400	50	1410	605	1.28	65	72	72	8280	50	4875	0.20
3	Δ	400	50	1400	663	1.35	64	71	71	7185	100	4230	0.40
4	Δ	400	50	1390	720	1.41	64	72	72	6170	140	3630	0.56
5	Y	400	50	1275	433	0.71		72	73	8260	0	4860	0.00
6	Y	400	50	1240	478	0.78		70	70	7285	39	4290	0.16
7	Y	400	50	1215	518	0.85		68	68	6255	76	3680	0.31
8	Y	400	50	1180	550	0.90		68	68	5310	103	3125	0.41

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-110160-1

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 <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	inH <sub>2</sub> O
1	Δ	460	60	1680	854	1.41	71	79	79	10920	0	6430	0.00
2	Δ	460	60	1670	930	1.49	70	77	77	10045	50	5915	0.20
3	Δ	460	60	1655	1008	1.58	68	75	75	9160	100	5390	0.40
4	Δ	460	60	1640	1060	1.64	68	75	75	8410	138	4950	0.55

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

