

A4D450-AN14-06 ebmpapst Datasheet

sales@fansco.com

www.fansco.com

Limited partnership · Headquarters Mulfingen

Amtsgericht (court of registration) Stuttgart · HRA 590344

General partner Elektrobau Mulfingen GmbH · Headquarters Mulfingen

Amtsgericht (court of registration) Stuttgart · HRB 590142

Nominal data

Type	A4D450-AN14-06		
Motor	M4D094-FA		
Phase		3~	3~
Nominal voltage	VAC	400	400
Wiring		Δ	Y
Frequency	Hz	50	50
Method of obtaining data		ml	ml
Valid for approval/standard		CE	CE
Speed (rpm)	min ⁻¹	1330	1040
Power consumption	W	460	310
Current draw	A	0.95	0.52
Max. back pressure	Pa	130	78
Max. back pressure	in. wg	0.52	0.31
Min. ambient temperature	°C	-40	-40
Max. ambient temperature	°C	65	65
Starting current	A	3.3	1.1

ml = Max. load · me = Max. efficiency · fa = Free air · cs = Customer specification · ce = Customer equipment
Subject to change

Data according to Commission Regulation (EU) 327/2011

		Actual	Req. 2015			
01 Overall efficiency η_{es}	%	34.3	31.5	09 Power consumption P_e	kW	0.45
02 Measurement category		A		09 Air flow q_v	m ³ /h	4530
03 Efficiency category		Static		09 Pressure increase p_{fs}	Pa	124
04 Efficiency grade N		42.8	40	10 Speed (rpm) n	min ⁻¹	1335
05 Variable speed drive		No		11 Specific ratio*		1.00

Data obtained at optimum efficiency level.
The ErP data is determined using a motor-impeller combination in a standardized measurement setup.

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

LU-108389



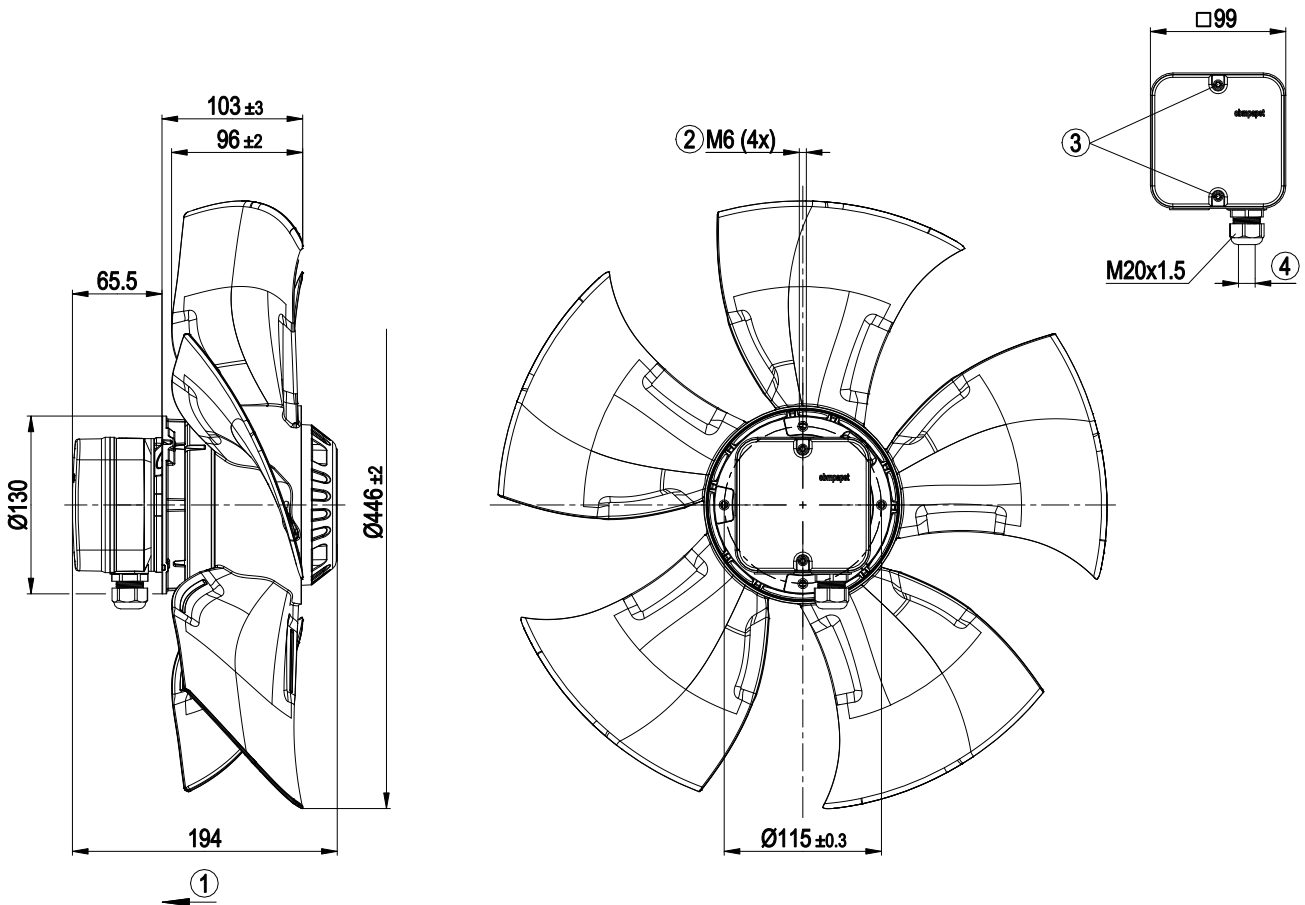
Technical description

Weight	5.9 kg
Size	450 mm
Motor size	94
Rotor surface	Painted black
Terminal box material	PP plastic
Blade material	Press-fitted sheet steel blank, sprayed with PP plastic
Number of blades	5
Airflow direction	V
Direction of rotation	Counterclockwise, viewed toward rotor
Degree of protection	IP54
Insulation class	"F"
Moisture (F) / Environmental (H) protection class	H2
Ambient temperature note	Occasional start-up at temperatures between -40°C and -25°C is permitted. For continuous operation at ambient temperatures below -25°C (such as refrigeration applications), use must be made of a fan design with special low-temperature bearings.
Max. permitted ambient temp. for motor (transport/storage)	+80 °C
Min. permitted ambient temp. for motor (transport/storage)	-40 °C
Installation position	Shaft horizontal or rotor on bottom; rotor on top on request
Condensation drainage holes	On rotor side
Mode	S1
Motor bearing	Ball bearing
Touch current according to IEC 60990 (measuring circuit Fig. 4, TN system)	<= 3.5 mA
Electrical hookup	Terminal box
Motor protection	Thermal overload protector (TOP) with basic insulation
Protection class	I (with customer connection of protective earth)
Conformity with standards	EN 60034-1 (2010); CE
Approval	CCC; EAC

AC axial fan

sickle-shaped blades (S series)

Product drawing



1	Airflow direction "V"
2	Max. clearance for screw 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



AC axial fan

sickle-shaped blades (S series)

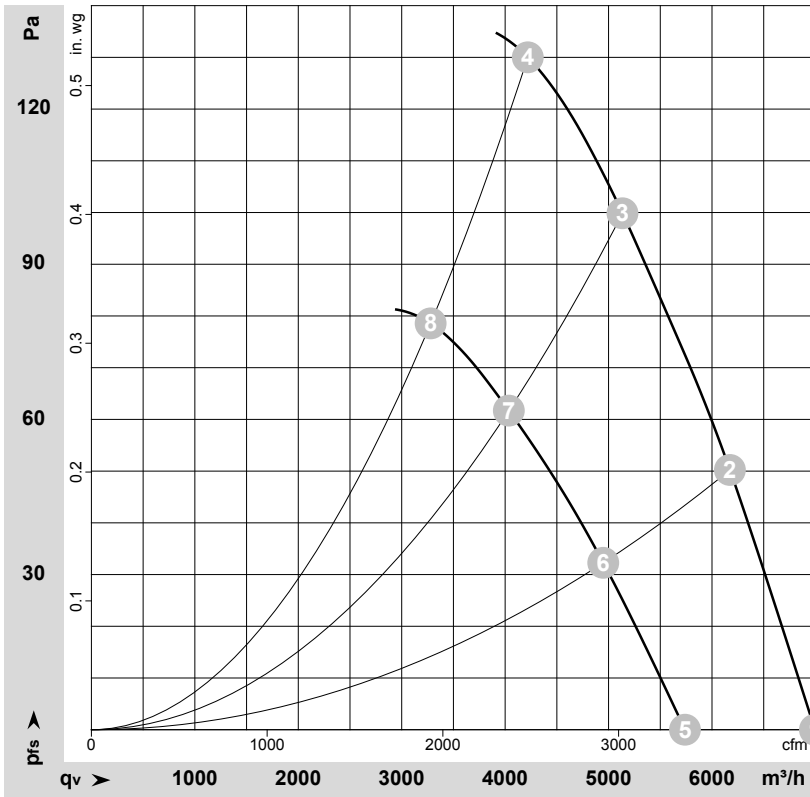
Connection diagram



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



Curves: Air performance 50 Hz



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

Measurement: LU-108389-1
Measurement: LU-108390-1

Air performance measured according to ISO 5801 installation category A. For detailed information on the measurement setup, contact ebm-papst. Intake sound level: Sound power level according to ISO 13347 / sound pressure level measured at 1 m distance from fan axis. The values given are valid under the specified measuring conditions and may vary due to conditions of installation. For deviations from the standard configuration, the parameters have to be checked on the installed unit.

Measured values

	Wired	U	f	n	P _e	I	q _v	P _{fs}	q _v	P _{fs}
		V	Hz	min ⁻¹	W	A	m ³ /h	Pa	cfm	in. wg
1	Δ	400	50	1375	369	0.86	6995	0	4115	0.00
2	Δ	400	50	1355	412	0.90	6175	50	3635	0.20
3	Δ	400	50	1345	441	0.93	5135	100	3020	0.40
4	Δ	400	50	1330	460	0.95	4220	130	2485	0.52
5	Y	400	50	1145	269	0.45	5740	0	3380	0.00
6	Y	400	50	1090	294	0.49	4950	32	2915	0.13
7	Y	400	50	1060	308	0.51	4035	62	2375	0.25
8	Y	400	50	1040	310	0.52	3280	78	1930	0.31

Wired = Wiring · U = Voltage · f = Frequency · n = Speed (rpm) · P_e = Power consumption · I = Current draw · q_v = Air flow · P_{fs} = Pressure increase

