A4D400-AN14-05

AC axial fan

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Amtsgericht (court of registration) Stuttgart · HRB 590142

Nominal data

Type	**A4D400-AN14-05**
Motor	**M4D094-FA**

Phase		3~	3~	3~	3~	3~	3~
Nominal voltage	VAC	400	400	400	400	480	480
Wiring		Δ	Y	Δ	Y	Δ	Y
Frequency	Hz	50	50	60	60	60	60
Method of obtaining data		ml	ml	ml	ml	ml	ml
Valid for approval/standard		CE	CE	CE	CE	CE	CE
Speed (rpm)	min^{-1}	1395	1200	1585	1185	1645	1330
Power consumption	W	330	240	470	310	510	380
Current draw	A	0.8	0.41	0.86	0.52	0.89	0.52
Max. back pressure	Pa	110	80	135	75	145	100
Max. back pressure	in. wg	0.44	0.32	0.54	0.3	0.58	0.4
Min. ambient temperature	°C	-40	-40	-40	-40	-40	-40
Max. ambient temperature	°C	65	65	65	65	65	65
Starting current	A	3.3	1.1	3.1	1.05		

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}	%	30.5	30.5
02 Measurement category		A	
03 Efficiency category		Static	
04 Efficiency grade N		40	40
05 Variable speed drive		No	

09 Power consumption P_e	kW	0.31
09 Air flow q_v	m^3/h	3205
09 Pressure increase p_{fs}	Pa	104
10 Speed (rpm) n	min^{-1}	1400
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 Pa

LU-161465

AC axial fan

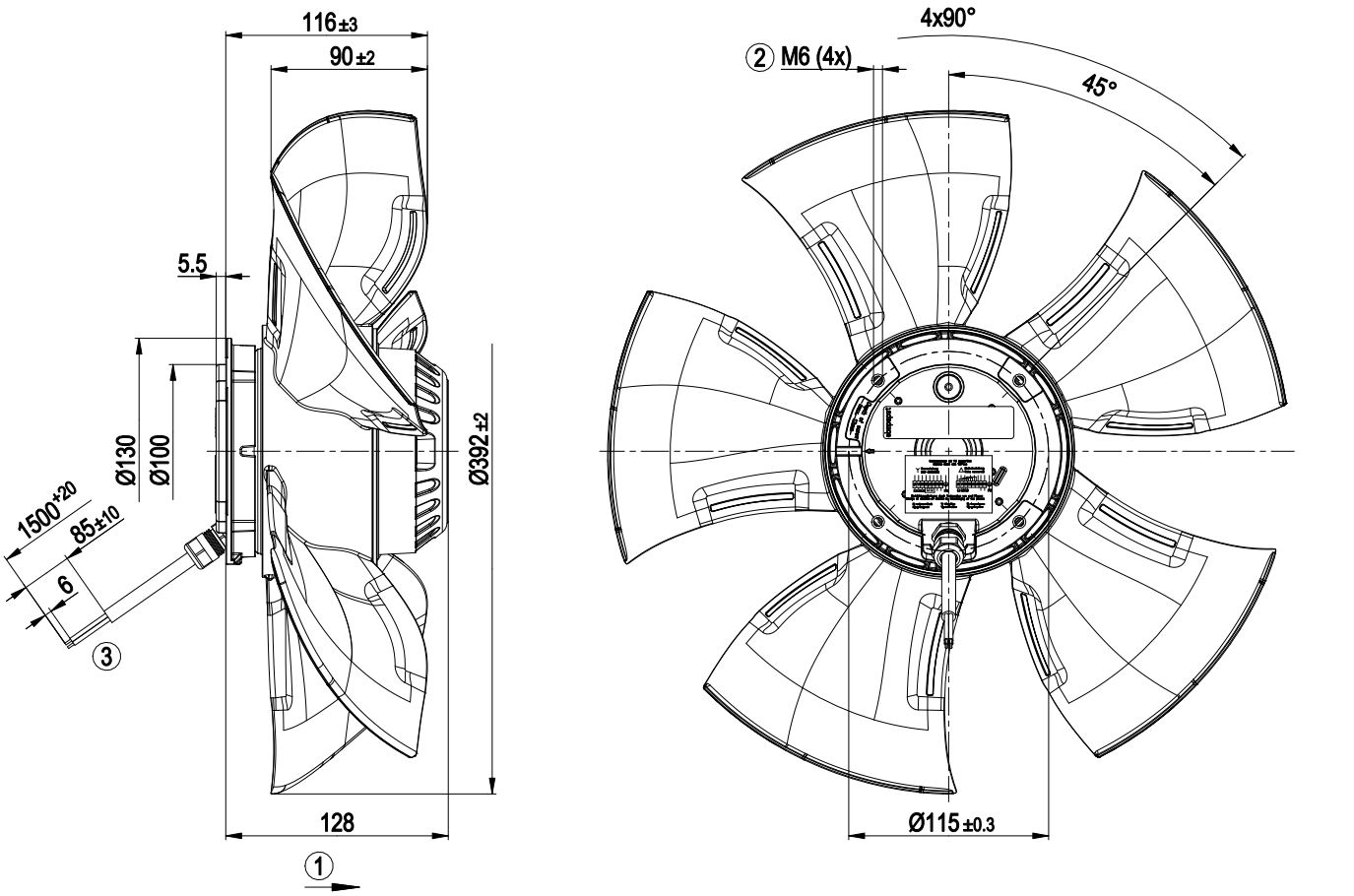
Technical description

Weight	5.7 kg
Size	400 mm
Motor size	94
Rotor surface	Painted black
Blade material	Press-fitted sheet steel blank, sprayed with PP plastic
Number of blades	5
Airflow direction	A
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	IP54
Insulation class	"F"
Moisture (F) / Environmental (H) protection class	H2
Max. permitted ambient temp. for motor (transport/storage)	+80 °C
Min. permitted ambient temp. for motor (transport/storage)	-40 °C
Installation position	Any
Condensation drainage holes	None
Mode	S1
Motor bearing	Ball bearing with low-temperature lubricant
Touch current according to IEC 60990 (measuring circuit Fig. 4, TN system)	<= 3.5 mA
Motor protection	Thermal overload protector (TOP) with basic insulation
With cable	Variable
Protection class	I (with customer connection of protective earth)
Conformity with standards	EN 60034-1 (2010); CE
Approval	EAC

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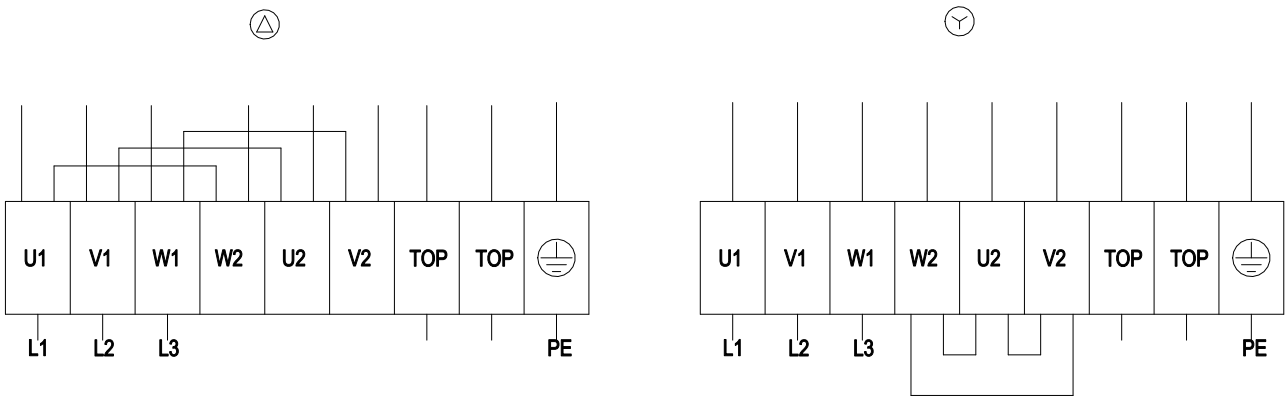
Product drawing



1	Direction of air flow "A"
2	Max. clearance for screw 12 mm
3	Cable silicone 9G 0.5 mm², tin-plated wire ends

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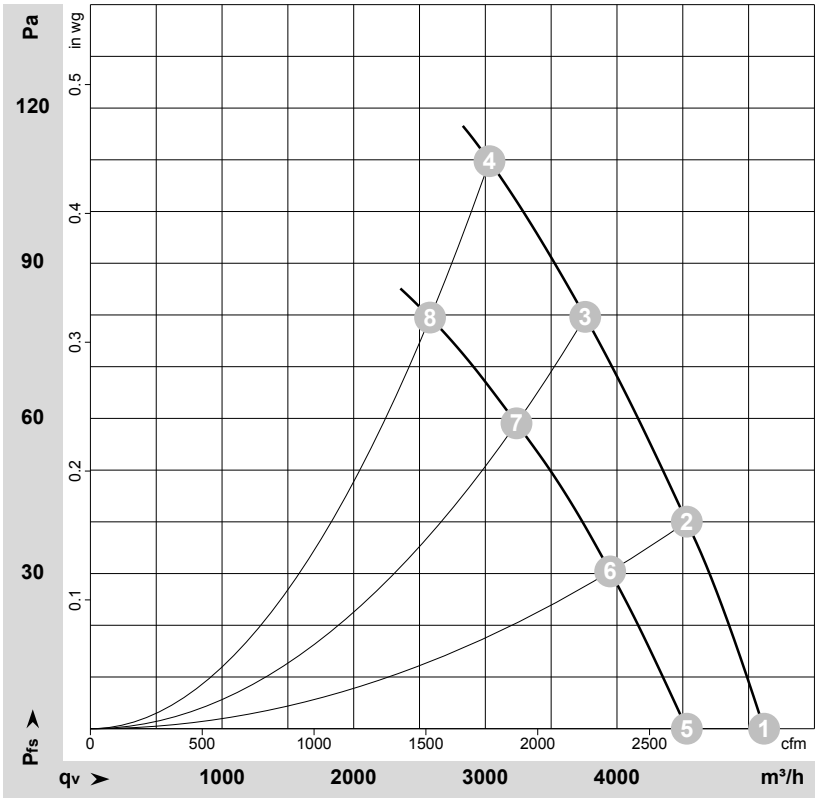
Connection diagram



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

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Curves: Air performance 50 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-161465-1
Measurement: LU-161540-1

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

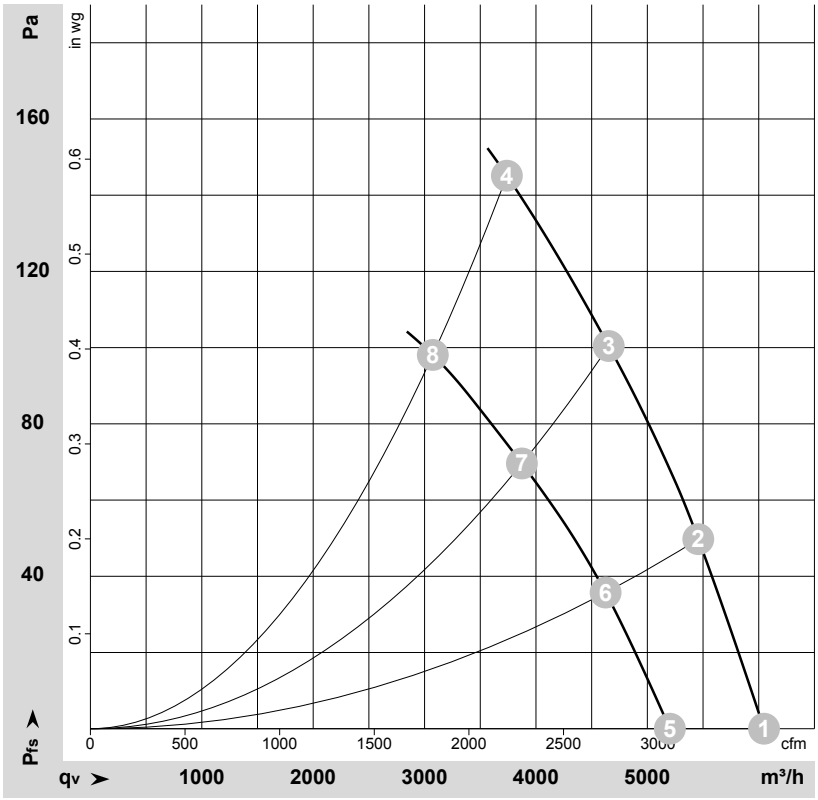
	Wired	U	f	n	P_e	I	q_V	p_{fs}	q_V	p_{fs}
		V	Hz	min^{-1}	W	A	m^3/h	Pa	cfm	in. wg
1	Δ	400	50	1420	272	0.73	5120	0	3010	0.00
2	Δ	400	50	1410	290	0.74	4530	40	2665	0.16
3	Δ	400	50	1405	306	0.75	3760	80	2210	0.32
4	Δ	400	50	1395	330	0.80	3030	110	1785	0.44
5	Y	400	50	1255	204	0.34	4530	0	2665	0.00
6	Y	400	50	1230	220	0.37	3950	31	2325	0.12
7	Y	400	50	1210	230	0.38	3235	59	1905	0.24
8	Y	400	50	1200	240	0.41	2580	80	1520	0.32

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

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Curves: Air performance 60 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-161539-1
Measurement: LU-161542-1

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	480	60	1680	426	0.80	6050	0	3560	0.00
2	Δ	480	60	1670	463	0.83	5455	50	3210	0.20
3	Δ	480	60	1660	484	0.85	4655	100	2740	0.40
4	Δ	480	60	1645	510	0.89	3740	145	2200	0.58
5	Y	480	60	1440	333	0.46	5200	0	3060	0.00
6	Y	480	60	1410	352	0.49	4625	36	2720	0.14
7	Y	480	60	1385	366	0.50	3875	70	2280	0.28
8	Y	480	60	1330	380	0.52	3075	98	1810	0.39

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

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