A6D710-AN01-01

AC axial fan

sickle-shaped blades (S series)



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ErP2015 EXCEEDS THE NORM

Nominal data

Type	**A6D710-AN01-01**
Motor	**M6D138-HF**

Phase		3~	3~	3~	3~
Nominal voltage	VAC	400	400	480	480
Wiring		Δ	Y	Δ	Y
Frequency	Hz	50	50	60	60
Method of obtaining data		ml	ml	ml	ml
Valid for approval/standard		CE	CE	CE	CE
Speed	min^{-1}	910	750	1070	810
Power consumption	W	1010	700	1640	1040
Current draw	A	2.4	1.33	2.88	1.7
Max. back pressure	Pa	130	87	180	100
Min. ambient temperature	°C	-40	-40	-40	-40
Max. ambient temperature	°C	80	80	60	80
Starting current	A	9	3	10	3.5

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

Data according to ErP Directive

		Actual	Req. 2015
01 Overall efficiency η_{es}	%	35.3	33.6
02 Measurement category		A	
03 Efficiency category		Static	
04 Efficiency grade N		41.7	40
05 Variable speed drive		No	

09 Power consumption P_e	kW	0.98
09 Air flow q_v	m^3/h	10460
09 Pressure increase p_{fs}	Pa	120
10 Speed n	min^{-1}	915
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-101211

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Technical description

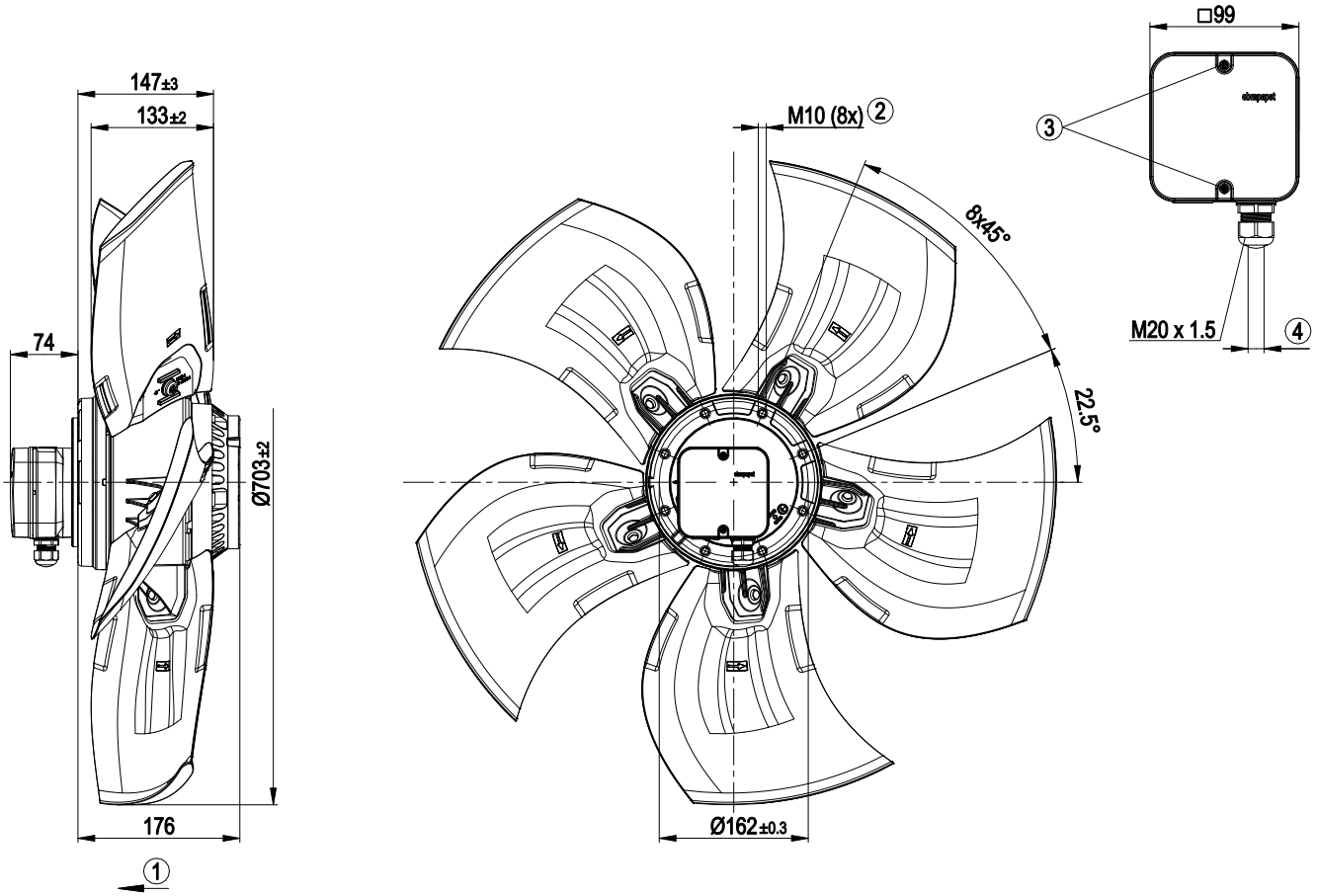
Weight	22.1 kg
Fan size	710 mm
Rotor surface	Cast in aluminum
Terminal box material	PP plastic
Blade material	Die-cast aluminum
Number of blades	5
Blade pitch	-5°
Airflow direction	"V"
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	IP54
Insulation class	"F"
Moisture (F) / Environmental (H) protection class	F3-1
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	On rotor and stator sides
Mode	S1
Motor bearing	Ball bearing
Touch current according to IEC 60990 (measuring circuit Fig. 4, TN system)	<= 3.5 mA
Electrical hookup	Via terminal box
Motor protection	Thermal overload protector (TOP) with basic insulation
With cable	Axial
Protection class	I (with customer connection of protective earth)
Conformity with standards	EN 60034-1 (2010); EN 61800-5-1; CE
Approval	EAC; VDE

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Product drawing



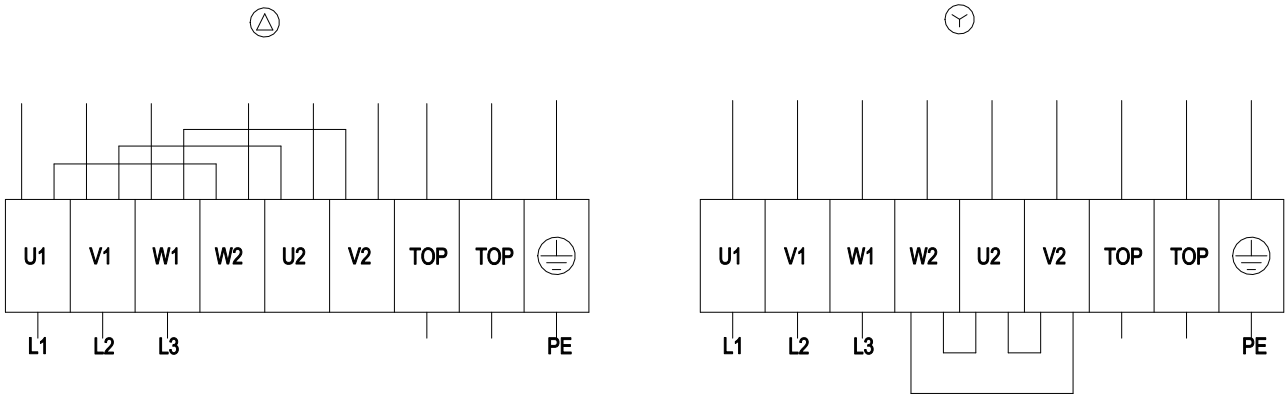
1	Direction of air flow "V"
2	Max. clearance for screw 18 mm
3	Tightening torque 1.5±0.2 Nm
4	Cable diameter: min. 7 mm, max. 14 mm, tightening torque 2±0.3 Nm

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Connection diagram



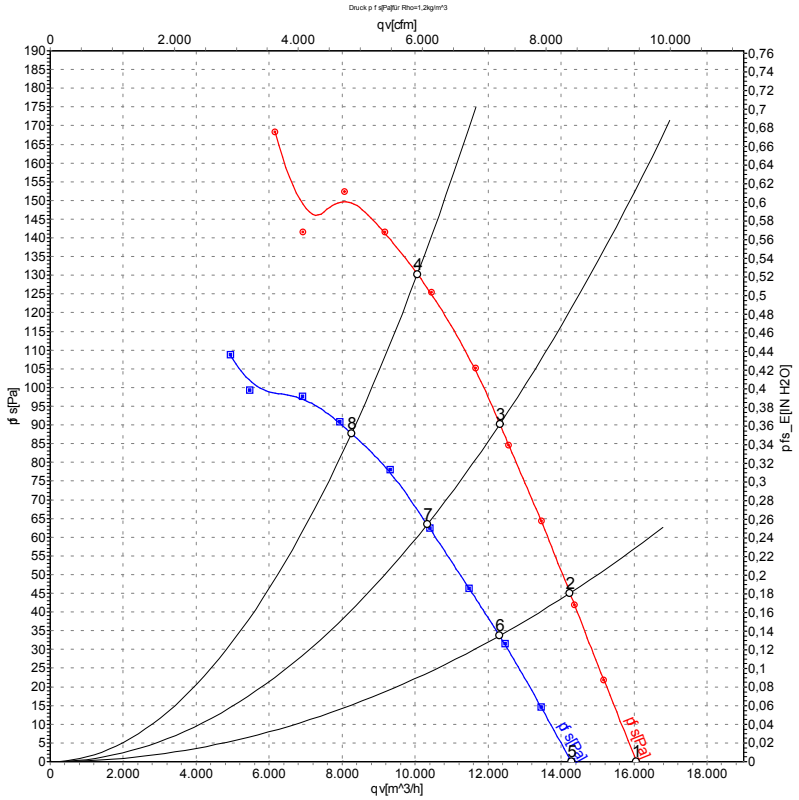
Δ	Delta connection	Y	Star connection	L1	= U1 = black
L2	= V1 = blue	L3	= W1 = brown	W2	yellow
U2	green	V2	white	TOP	2x gray
PE	green/yellow				

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Curves: Air performance 50 Hz



Measurement: LU-101211-1
Measurement: LU-101216-1

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	LpA_{in}	LwA_{in}	qv	p_{fs}
		V	Hz	min^{-1}	W	A	dB(A)	dB(A)	m^3/h	Pa
1	Δ	400	50	945	711	2.09	66	72	16060	0
2	Δ	400	50	935	820	2.17	65	71	14240	45
3	Δ	400	50	925	922	2.26	67	73	12320	90
4	Δ	400	50	910	1010	2.40	70	77	10060	130
5	Y	400	50	835	530	1.02	63	69	14280	0
6	Y	400	50	805	603	1.14	62	68	12310	34
7	Y	400	50	780	656	1.24	63	69	10330	63
8	Y	400	50	750	700	1.33	66	72	8255	88

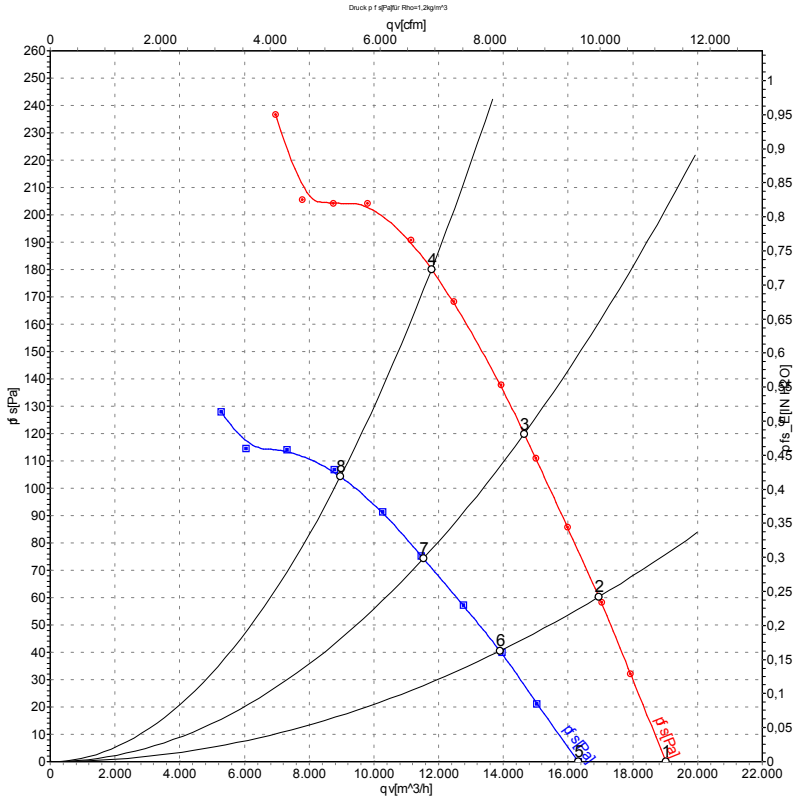
Wired = Wiring · U = Power supply · f = Frequency · n = Speed · P_e = Power consumption · I = Current draw · LpA_{in} = Sound pressure level intake side · LwA_{in} = Sound power level intake side
qv = Air flow · p_{fs} = Pressure increase

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Curves: Air performance 60 Hz



Measurement: LU-101209-1
Measurement: LU-101213-1

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	LpA_{in}	LwA_{in}	qv	p_{fs}
		V	Hz	min^{-1}	W	A	dB(A)	dB(A)	m^3/h	Pa
1	Δ	480	60	1120	1159	2.37	69	76	19020	0
2	Δ	480	60	1105	1326	2.51	68	75	16950	60
3	Δ	480	60	1090	1484	2.66	70	76	14640	120
4	Δ	480	60	1070	1640	2.88	74	81	11780	180
5	Y	480	60	955	845	1.35	65	72	16310	0
6	Y	480	60	905	929	1.49	64	70	13890	41
7	Y	480	60	855	988	1.60	64	71	11530	74
8	Y	480	60	810	1040	1.70	68	74	8965	105

Wired = Wiring · U = Power supply · f = Frequency · n = Speed · P_e = Power consumption · I = Current draw · LpA_{in} = Sound pressure level intake side · LwA_{in} = Sound power level intake side
qv = Air flow · p_{fs} = Pressure increase

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