AC axial fan - HyBlade

sickle-shaped blades (S series)

A6D800-AE05-04 ebmpapst Datasheet
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www.fansco.com

Nominal data

Type	**A6D800-AE05-04**
Motor	**M6D138-LA**

Phase		3~	3~	3~	3~
Nominal voltage	VAC	230	277	400	480
Wiring		Δ	Δ	Y	Y
Frequency	Hz	50	60	50	60
Method of obtaining data		ml	ml	ml	ml
Valid for approval/standard		CE	CE	CE	CE
Speed (rpm)	min^{-1}	905	1080	905	1080
Power consumption	W	1570	2180	1570	2180
Current draw	A	5.92	6.6	3.42	3.8
Max. back pressure	Pa	170	150	170	150
Max. back pressure	inH2O	0.68	0.6	0.68	0.6
Min. ambient temperature	°C	-40	-40	-40	-40
Max. ambient temperature	°C	65	60	65	60
Starting current	A	22	24	13	14

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}	%	37.4	34.6
02 Measurement category		A	
03 Efficiency category		Static	
04 Efficiency grade N		42.8	40
05 Variable speed drive		No	

09 Power consumption P_e	kW	1.38
09 Air flow q_v	m^3/h	14570
09 Pressure increase p_{fs}	Pa	128
10 Speed (rpm) n	min^{-1}	920
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-114552

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Technical description

Weight	24.2 kg
Fan size	800 mm
Rotor surface	Cast in aluminum
Terminal box material	PC/ABS plastic
Blade material	Sheet aluminum insert, sprayed with PP plastic
Number of blades	5
Blade pitch	-5°
Airflow direction	"A"
Direction of rotation	Counterclockwise, 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 61800-5-1; EN 60034; CE
Approval	EAC; UL 1004-1; CSA C22.2 No. 100

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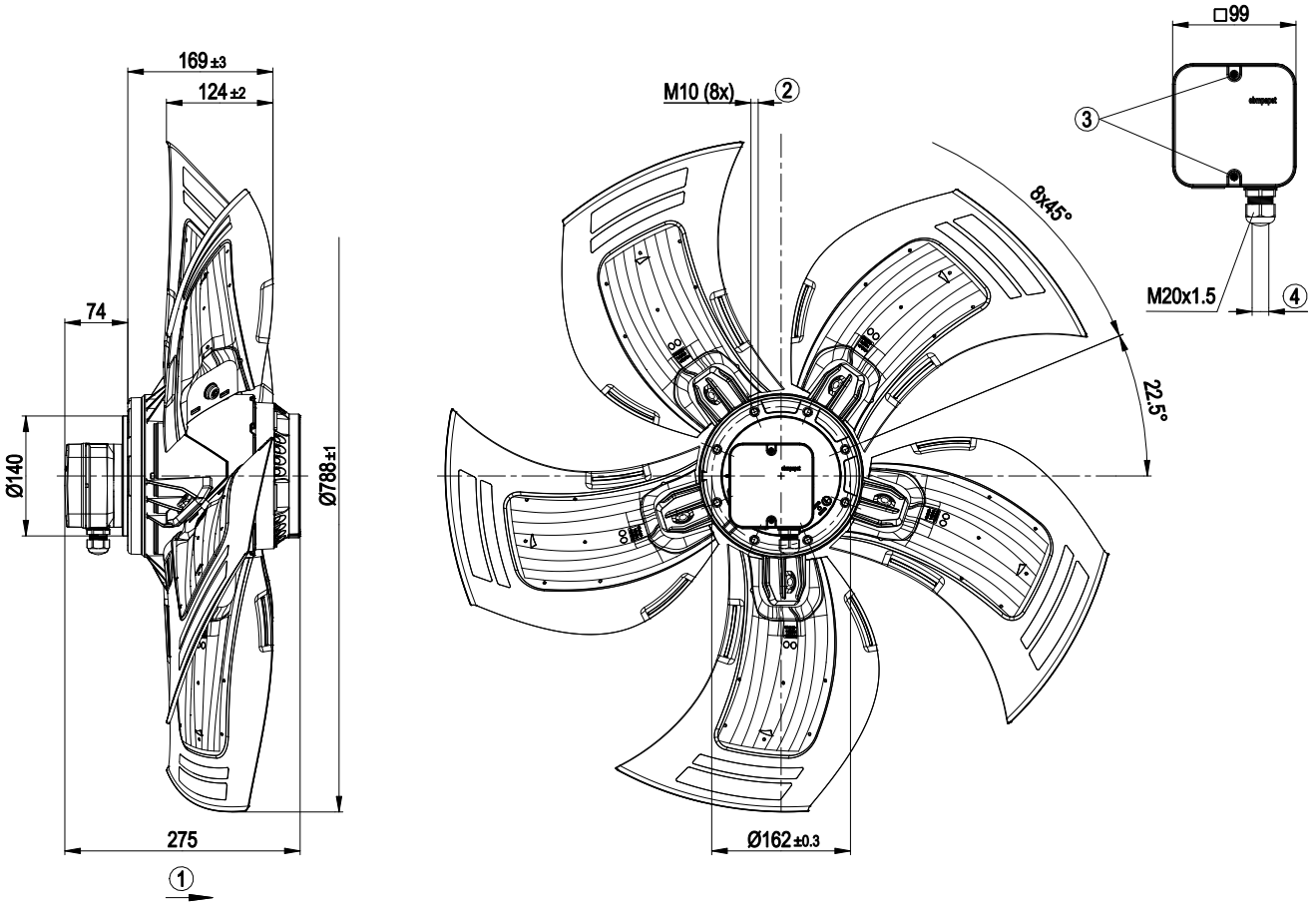
Product drawing



1	Direction of air flow "A"
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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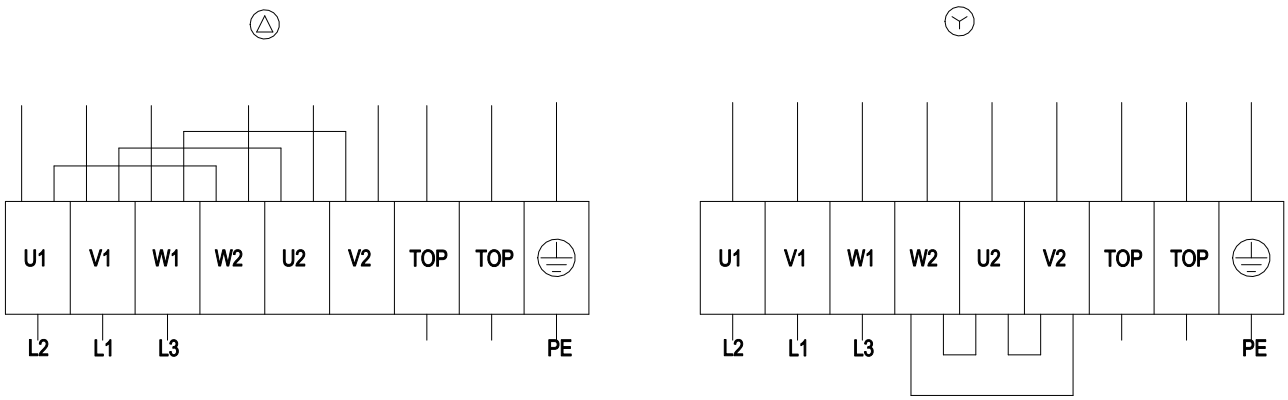
Connection diagram



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

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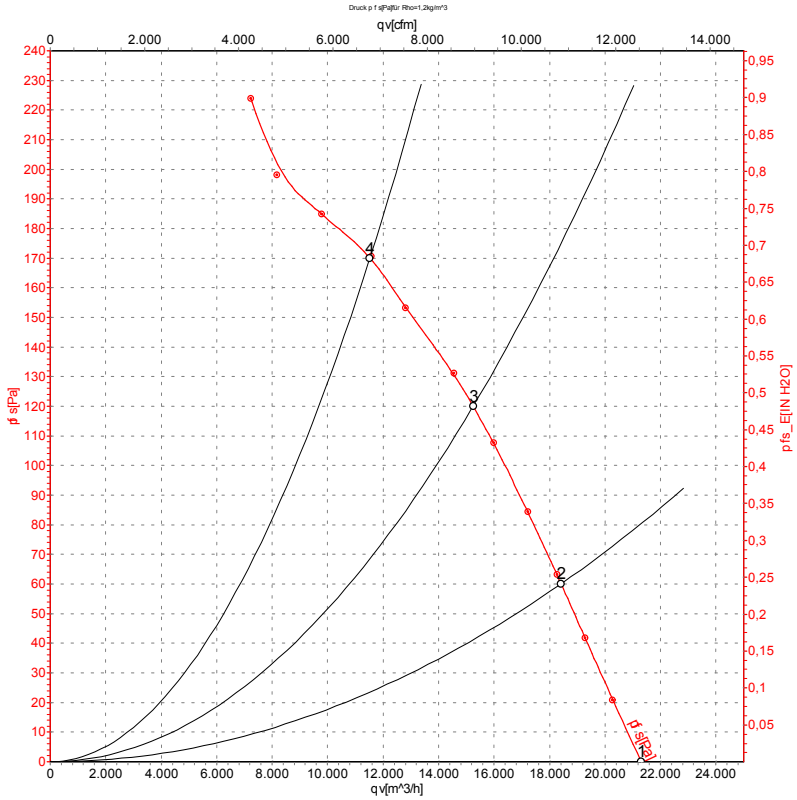
Curves: Air performance 50 Hz



Measurement: LU-114552-1

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}	LwA_{out}	qv	p_{fs}	qv	p_{fs}
		V	Hz	min^{-1}	W	A	dB(A)	dB(A)	dB(A)	m^3/h	Pa	CFM	inH2O
1	Y	400	50	950	992	2.81	67	73	73	21310	0	12545	0.00
2	Y	400	50	935	1199	2.99	63	70	69	18420	60	10840	0.24
3	Y	400	50	925	1358	3.20	67	73	72	15250	120	8975	0.48
4	Y	400	50	905	1570	3.42	71	78	77	11530	170	6785	0.68

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

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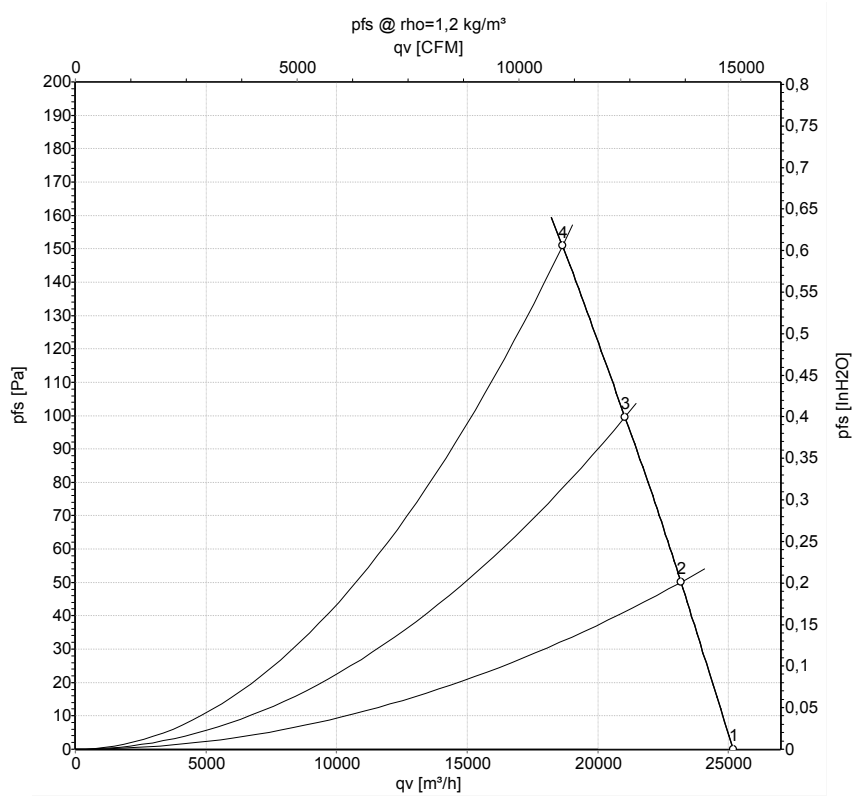
Curves: Air performance 60 Hz



Measurement: LU-114632-1

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}	LwA_{out}	qv	p_{fs}	qv	p_{fs}
		V	Hz	min^{-1}	W	A	dB(A)	dB(A)	dB(A)	m^3/h	Pa	CFM	inH2O
1	Y	480	60	1125	1619	3.22	71	78	78	25190	0	14825	0.00
2	Y	480	60	1110	1817	3.44	68	75	75	23185	50	13645	0.20
3	Y	480	60	1100	2009	3.66	68	75	74	21045	100	12385	0.40
4	Y	480	60	1080	2180	3.80	70	77	75	18655	150	10980	0.60

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