A6D990-AX05-85

AC axial fan - HyBlade

sickled blades (S series)

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Nominal data

Type	**A6D990-AX05-85**
Motor	**M6D138-OA**

Phase		3~	3~
Nominal voltage	VAC	380	380
Connection		Δ	Y
Frequency	Hz	50	50
Type of data definition		ml	ml
Valid for approval / standard		CE	CE
Speed (rpm)	min^{-1}	920	750
Power input	W	2390	1720
Current draw	A	5.32	3.3
Max. back pressure	Pa	117	77
Min. ambient temperature	°C	-40	-40
Max. ambient temperature	°C	60	60

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 η_{es}	%	39.6	36.4
02 Measurement category		A	
03 Efficiency category		Static	
04 Efficiency grade N		43.2	40
05 Variable speed drive		No	

09 Power input P_e	kW	2.69
09 Air flow q_v	m^3/h	22620
09 Pressure increase p_{fs}	Pa	170
10 Speed (rpm) n	min^{-1}	920
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_{fs} / 100 000 Pa

LU-134881

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Technical features

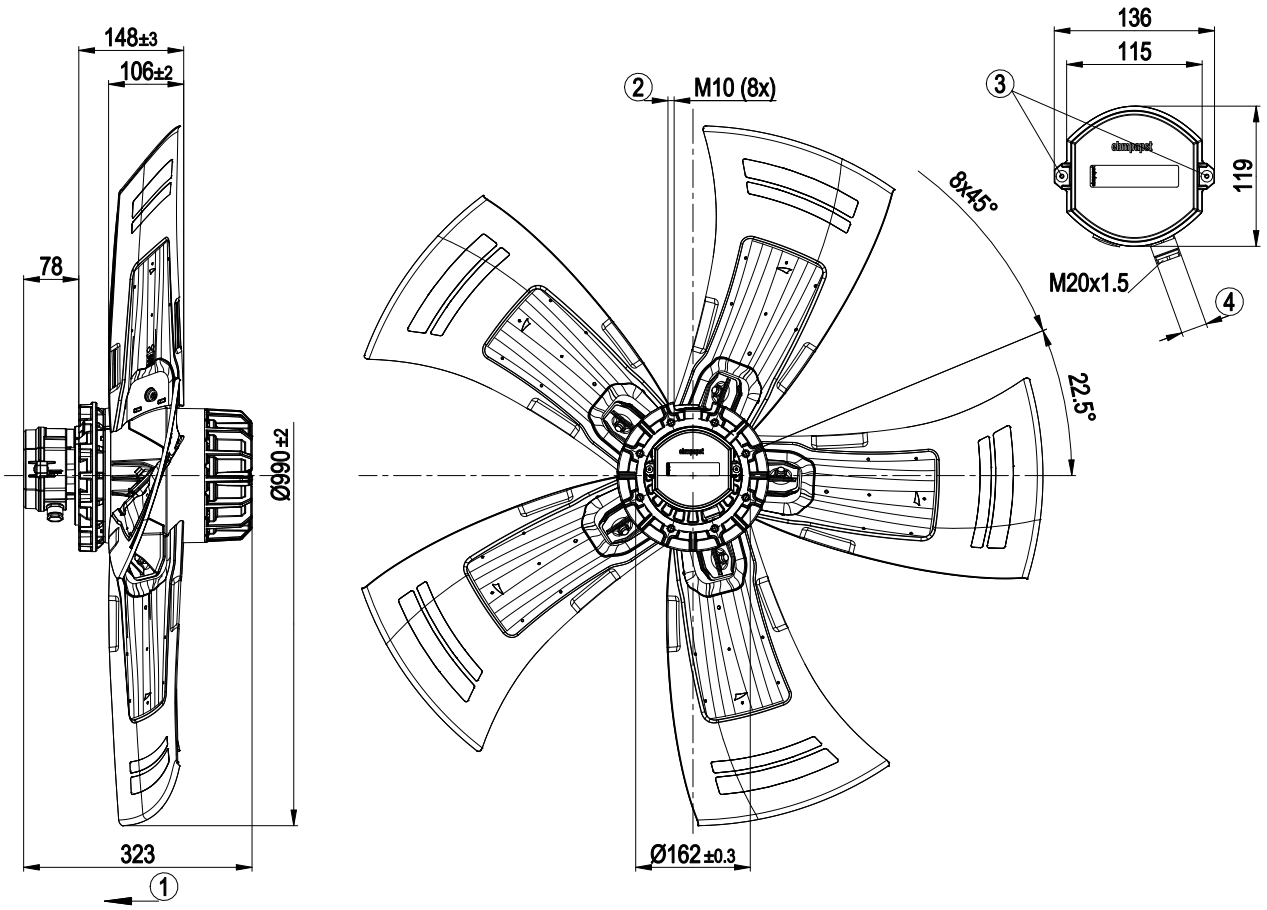
Mass	29.85 kg
Size	990 mm
Surface of rotor	Cast in aluminium
Material of terminal box	Die-cast aluminium, coated in black
Material of blades	Aluminium sheet insert (coated in black), sprayed with PP plastic
Number of blades	5
Blade angle	-5°
Direction of air flow	"V"
Direction of rotation	Clockwise, seen on rotor
Type of protection	IP 55
Insulation class	"F"
Humidity (F)/environmental protection class (H)	H2+
Max. permissible ambient motor temp. (transp./ storage)	+80 °C
Min. permissible ambient motor temp. (transp./storage)	-40 °C
Mounting position	Any
Condensate discharge holes	None
Operation mode	S1
Motor bearing	Ball bearing
Touch current acc. IEC 60990 (measuring network Fig. 4, TN system)	<= 3.5 mA
Electrical leads	Via terminal box
Motor protection	Thermal overload protector (TOP) brought out, basic insulation
Cable exit	Axial
Protection class	I (if protective earth is connected by customer)
Product conforming to standard	EN 60034-1 (2010); EN 61800-5-1; CE
Approval	VDE; EAC

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Product drawing



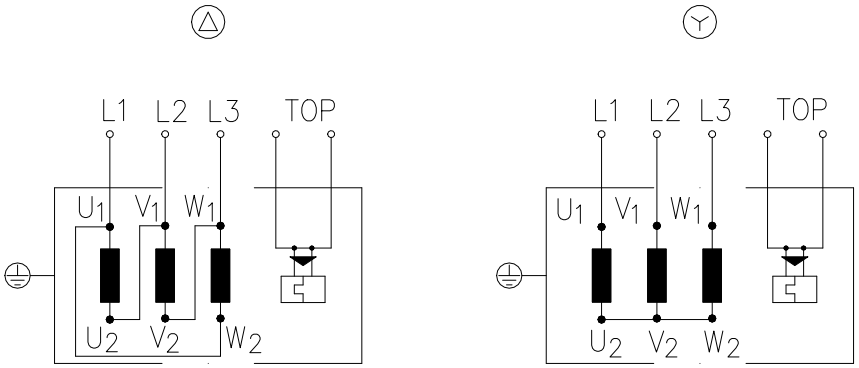
1	Direction of air flow "V"
2	Thread reach max. 18 mm
3	Tightening torque 2.5±0.4 Nm
4	Cable diameter: min. 10 mm, max. 12 mm, tightening torque 4±0.4 Nm

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Connection screen



Changing the direction of rotation by reversing the two phases

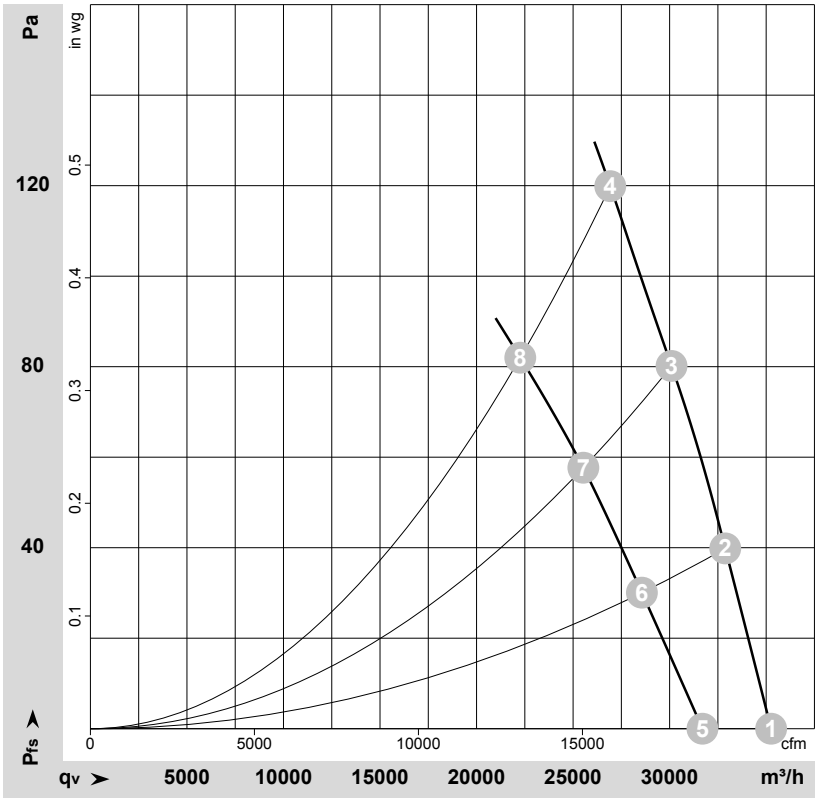
Δ	Delta connection	Y	Star connection	L1	= U1 = black
L2	= V1 = blue	L3	= W1 = brown	W2	yellow
U2	green	V2	white	TOP	2 x grey
PE	green / yellow				

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Charts: Air flow 50 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-134881-1
Measurement: LU-134883-1

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_e	I	LpA_{in}	LwA_{in}	LwA_{out}	q_V	p_{fs}	q_V	p_{fs}
		V	Hz	min^{-1}	W	A	dB(A)	dB(A)	dB(A)	m^3/h	Pa	cfm	inH2O
1	Δ	400	50	960	1742	4.92	76	84	84	35260	0	20750	0.00
2	Δ	400	50	950	1996	5.12	75	82	83	32880	40	19355	0.16
3	Δ	400	50	940	2234	5.35	74	81	82	30100	80	17715	0.32
4	Δ	400	50	930	2480	5.63	74	81	81	26925	120	15845	0.48
5	Y	400	50	855	1377	2.60	73	81	81	31700	0	18660	0.00
6	Y	400	50	825	1543	2.90	71	79	79	28565	30	16810	0.12
7	Y	400	50	800	1691	3.18	70	78	77	25530	58	15025	0.23
8	Y	400	50	770	1820	3.42	69	77	76	22265	81	13105	0.33

Conn. = Connection · U = Supply voltage · f = Frequency · n = Speed (rpm) · P_e = Power input · I = Current draw · LpA_{in} = Sound pressure level inlet side · LwA_{in} = Sound power level inlet side
LwA_{out} = Sound power level outlet side · q_V = Air flow · p_{fs} = Pressure increase

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