S6D990-BX05-05

Güntner GmbH & Co. KG

VT03155U

AC axial fan - HyBlade

sickled blades (S series)

with guard grille for full nozzle

S6D990-BX05-05 ebmpapst Datasheet
sales@fansco.com
www.fansco.com

Nominal data

Type	**S6D990-BX05-05**
Motor	**M6D138-OA**

Phase		3~	3~	3~
Nominal voltage	VAC	400	400	415
Connection		Δ	Y	Δ
Frequency	Hz	50	50	50
Type of data definition		ml	ml	ml
Valid for approval / standard		CE	CE	CE
Speed (rpm)	min^{-1}	930	770	930
Power input	W	2480	1820	2900
Current draw	A	5.63	3.42	6.4
Max. back pressure	Pa	120	80	195
Min. ambient temperature	°C	-40	-40	-40
Max. ambient temperature	°C	60	60	45
Starting current	A	21	12	22

ml = Max. load · me = Max. efficiency · fa = Running at free air · cs = Customer specs · cu = Customer unit
Subject to alterations

Data in accordance with ecodesign regulation EU 327/2011 (EN 17166)

		Actual	Request 2015
01 Overall efficiency η_{es}	%	38.6	36.4
02 Measurement category		A	
03 Efficiency category		Static	
04 Efficiency grade N		42.2	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	40 kg
Size	990 mm
Motor size	138
Surface of rotor	Cast in aluminium
Material of terminal box	Die-cast aluminium
Material of blades	Aluminium sheet insert, sprayed with PP plastic
Material of guard grille	Steel, coated in black plastic (RAL9005)
Number of blades	5
Blade angle	-5°
Direction of air flow	V
Direction of rotation	Clockwise, seen on rotor
Type of protection	IP54
Insulation class	"F"
Humidity (F) / environmental protection class (H)	H2
Note ambient temperature	Occasional start-up between -40 °C and -25 °C is permissible. For continuous operation at ambient temperatures below -25 °C (e.g. refrigeration applications), a fan version with special low-temperature bearings must be used.
Max. permissible ambient motor temp. (transp./ storage)	+ 80 °C
Min. permissible ambient motor temp. (transp./storage)	- 40 °C
Mounting position	Shaft horizontal or rotor on bottom
Condensation drainage holes	Rotor-side
Operation mode	S1
Motor bearing	Ball bearing
Touch current acc. IEC 60990 (measuring network Fig. 4, TN system)	<= 3.5 mA
Electrical connection	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); CE
Approval	VDE; EAC

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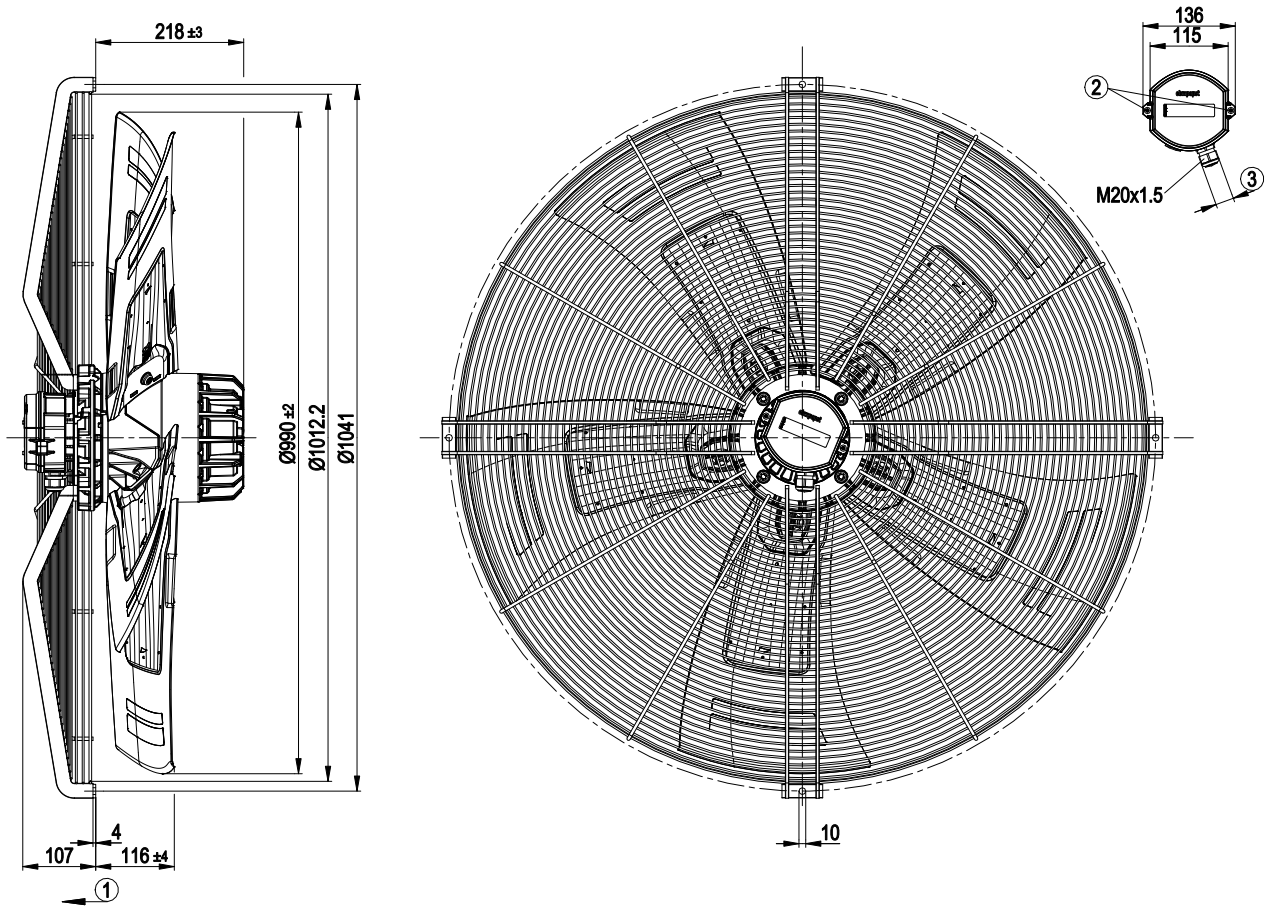
Product drawing



1	Direction of air flow "V"
2	Tightening torque 2.5±0.4 Nm
3	Cable diameter min. 7 mm, max. 14 mm, tightening torque 2±0.3 Nm

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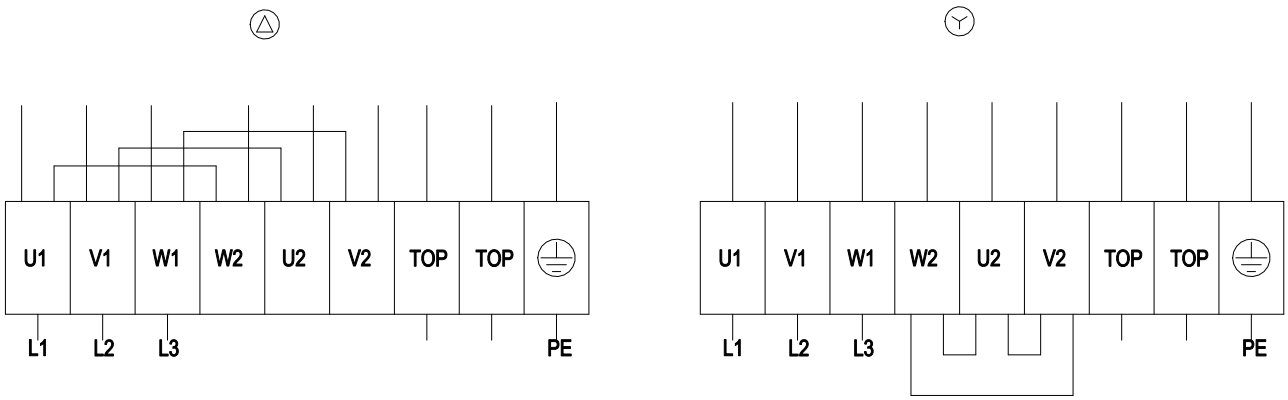
Connection screen



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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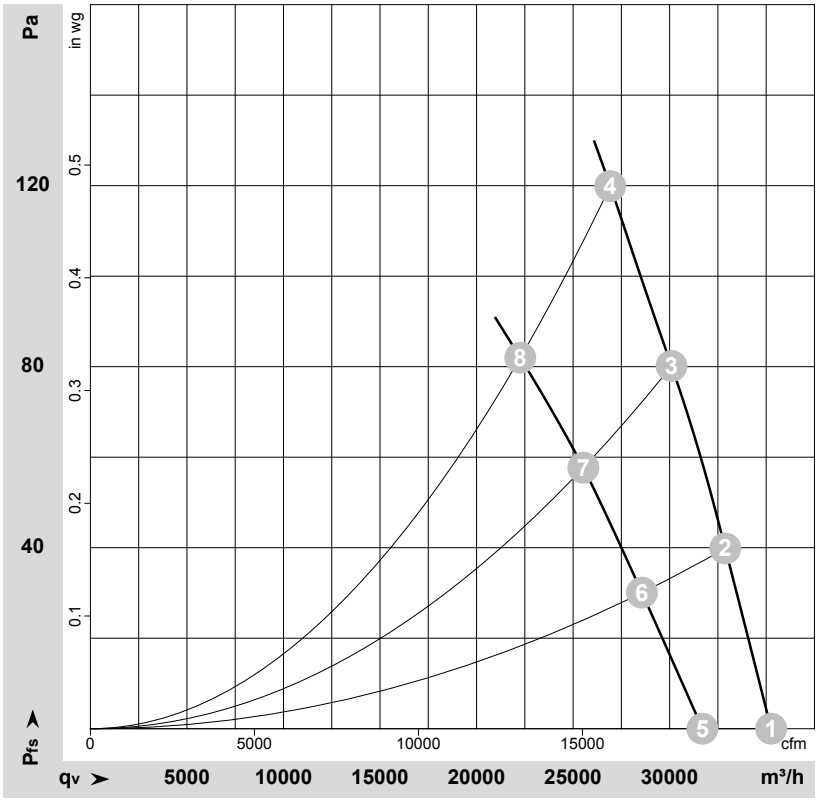
Charts: Air flow 50 Hz



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	in. wg
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