

AC axial fan

sickled blades (S series)

with guard grille for short nozzle

S6D630-AF05-03 ebmpapst Datasheet

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Nominal data

Type	S6D630-AF05-03				
Motor	M6D110-GF				
Phase		3~	3~	3~	3~
Nominal voltage	VAC	230	277	400	480
Connection		Δ	Δ	Y	Y
Frequency	Hz	50	60	50	60
Type of data definition		ml	ml	ml	ml
Valid for approval / standard		CE	CE	CE	CE
Speed (rpm)	min ⁻¹	920	1070	920	1070
Power input	W	530	830	530	830
Current draw	A	2.18	2.55	1.26	1.46
Max. back pressure	Pa	110	150	110	150
Min. ambient temperature	°C	-40	-40	-40	-40
Max. ambient temperature	°C	75	55	75	55
Starting current	A	7.5	8.2	4.3	4.72

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}	%	34.7	31.8
02 Measurement category		A	
03 Efficiency category		Static	
04 Efficiency grade N		42.9	40
05 Variable speed drive		No	

Data definition with optimum efficiency.

The ErP data is determined using a motor-impeller combination in a standardised measurement configuration.

09 Power input P_e	kW	0.51
09 Air flow q_v	m ³ /h	6230
09 Pressure increase p_{fs}	Pa	105
10 Speed (rpm) n	min ⁻¹	925
11 Specific ratio*		1.00

* Specific ratio = $1 + p_{fs} / 100\,000\text{ Pa}$

LU-163777



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Technical features

Mass	15 kg
Size	630 mm
Surface of rotor	Cast in aluminium
Material of terminal box	PP plastic
Material of blades	Aluminium sheet
Material of guard grille	Steel, coated in black plastic (RAL9005)
Number of blades	5
Blade angle	-10°
Direction of air flow	"V"
Direction of rotation	Counter-clockwise, seen on rotor
Type of protection	IP 54
Insulation class	"F"
Humidity (F)/environmental protection class (H)	F3-1
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; rotor on top on request
Condensate discharge 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 leads	Via terminal box
Motor protection	Thermal overload protector (TOP) brought out, basic insulation
Protection class	I (if protective earth is connected by customer)
Product conforming to standard	EN 61800-5-1; CE
Approval	CSA C22.2 No.100; UL 1004-1; VDE; EAC

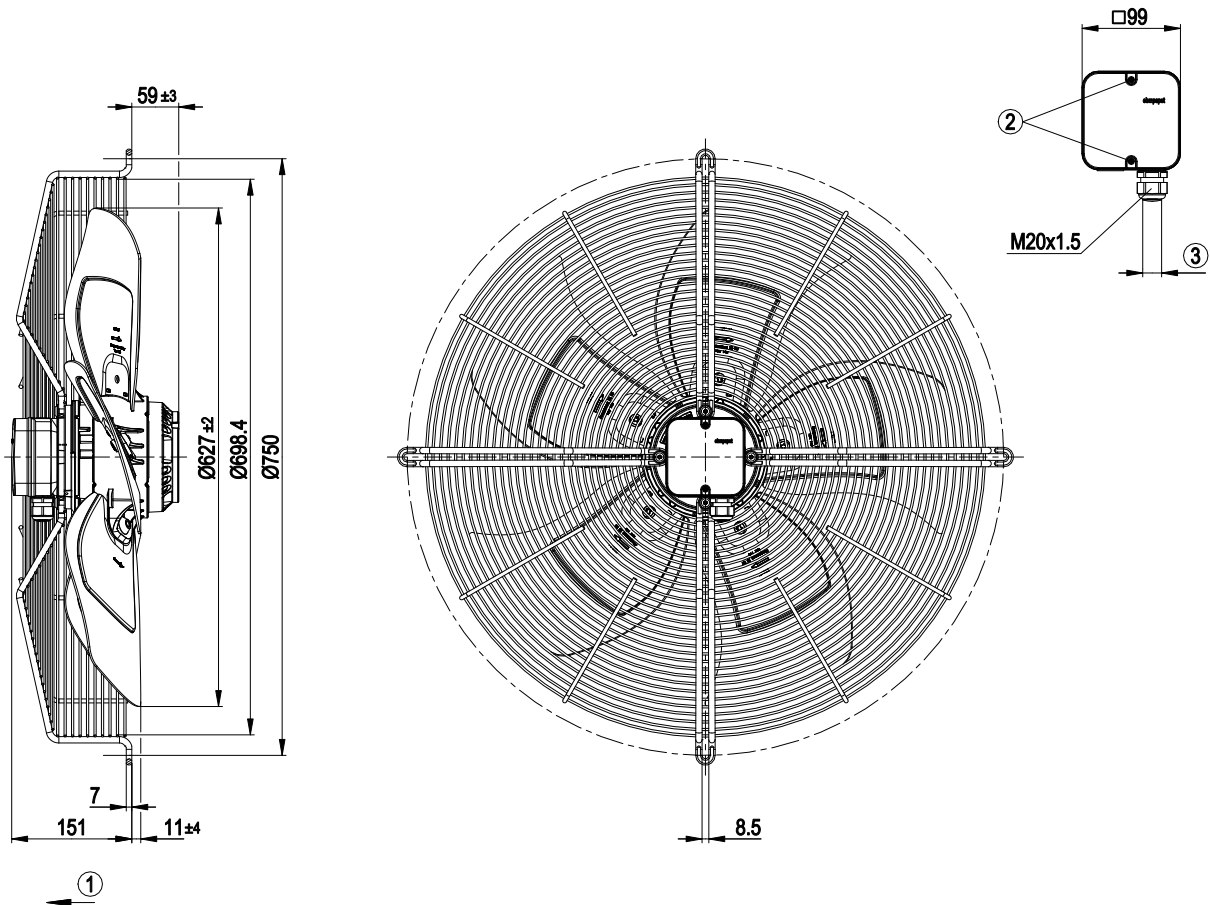


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Product drawing

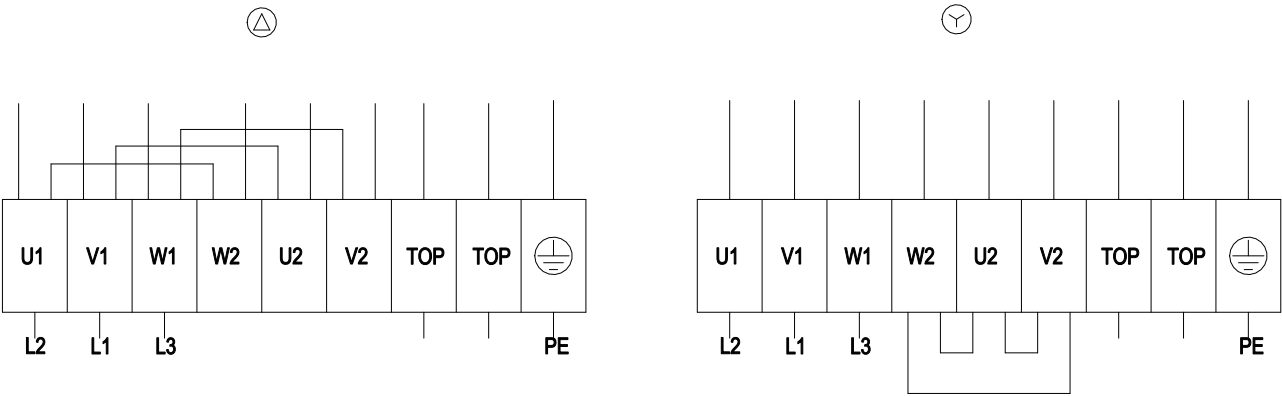


1	Direction of air flow "V"
2	Tightening torque 1.5 ± 0.2 Nm
3	Cable diameter: min. 6 mm, max. 12 mm, tightening torque 2 ± 0.3 Nm

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Connection screen



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

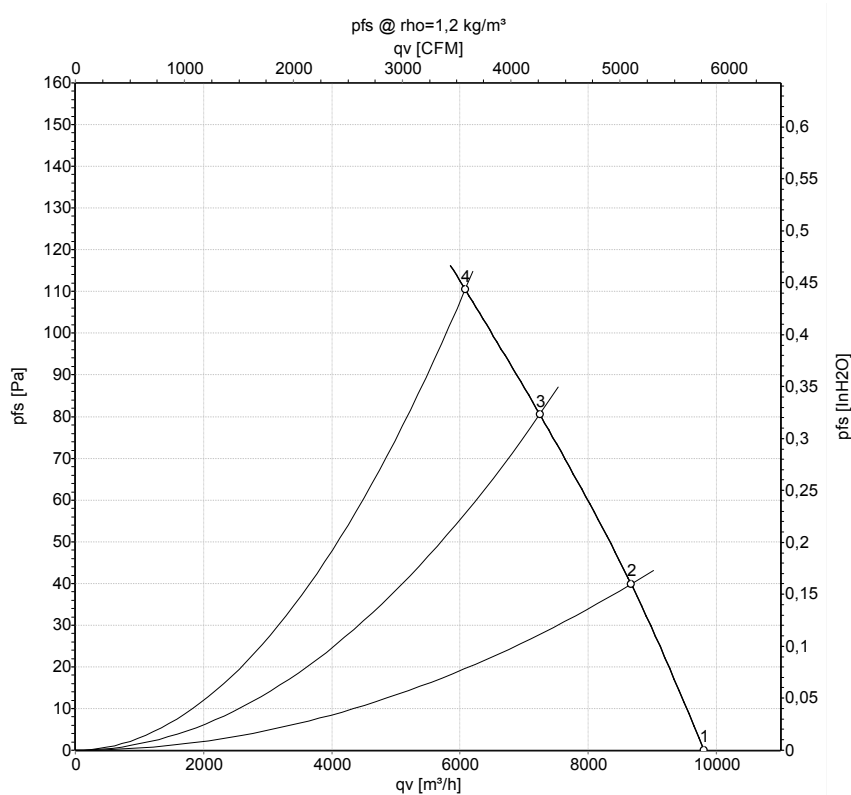


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Charts: Air flow 50 Hz



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	inH ₂ O
1	Y	400	50	950	373	1.15	69	76	76	9805	0	5770	0.00
2	Y	400	50	940	433	1.18	67	74	74	8670	40	5105	0.16
3	Y	400	50	930	488	1.22	68	75	74	7245	80	4265	0.32
4	Y	400	50	920	530	1.26	69	76	76	6080	110	3580	0.44

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

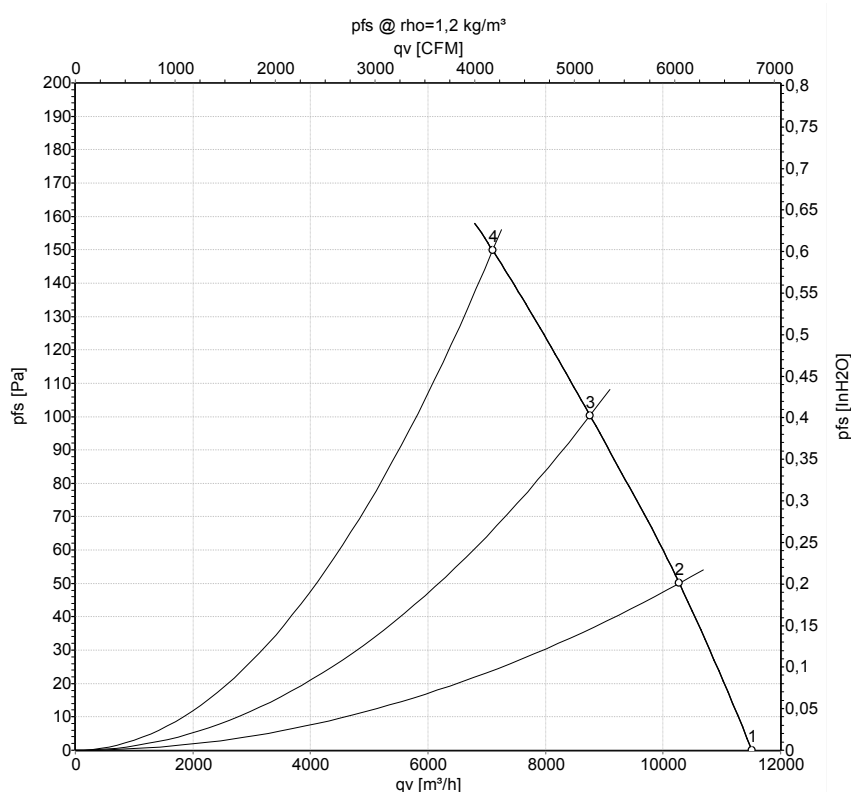


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Charts: Air flow 60 Hz



Measurement: LU-163858-1

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: L_{wA} measured as per ISO 13347 / L_{pA} 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	inH ₂ O
1	Y	480	60	1120	567	1.19	73	80	80	11515	0	6780	0.00
2	Y	480	60	1105	656	1.27	71	78	77	10275	50	6050	0.20
3	Y	480	60	1090	741	1.36	71	78	77	8755	100	5155	0.40
4	Y	480	60	1070	830	1.46	73	80	80	7100	150	4180	0.60

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

