S4D630-AR11-06

AC axial fan - HyBlade®

sickled blades (S series)

with guard grille for short nozzle

S4D630-AR11-06 ebmpapst Datasheet
sales@fansco.com
www.fansco.com

Nominal data

Type	**S4D630-AR11-06**
Motor	**M4D110-IA**

Phase		3~	3~	3~	3~	3~	3~
Nominal voltage	VAC	400	400	400	400	480	480
Connection		**Δ**	Y	**Δ**	Y	**Δ**	Y
Frequency	Hz	50	50	60	60	60	60
Type of data definition		ml	ml	ml	ml	ml	ml
Valid for approval / standard		CE	CE	CE	CE	CE	CE
Speed	min^{-1}	1260	915	1310	835	1440	960
Power input	W	1000	570	1320	600	1590	820
Current draw	A	1.85	1.02	2.32	1.1	2.4	1.22
Max. back pressure	Pa	90	48	90	37	110	50
Min. ambient temperature	°C	-40	-40	-40	-40	-40	-40
Max. ambient temperature	°C	70	70	40	40	40	40

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

Installation category	A
Efficiency category	Static
Variable speed drive integrated	No
Specific ratio*	1,00

* Specific ratio = 1 + p_{fs} / 100 000 Pa

		Actual	Request 2013	Request 2015
Overall efficiency η_{es}		34,1	30	34
Efficiency grade N		40,1	36	40
Power input P_e	kW	1,14		
Air flow q_v	m^3/h	8070		
Pressure increase p_{fs}	Pa	175		
Speed n	min^{-1}	1200		

Data established at point of optimum efficiency

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Technical features

Mass	19.2 kg
Size	630 mm
Surface of rotor	Cast in aluminium
Material of terminal box	PP plastic, black
Material of blades	Aluminium sheet insert, sprayed with PP plastic
Material of guard grille	Steel, phosphated and coated in black plastic
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 class	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
Leakage current	<= 3.5 mA
Electrical leads	Via terminal box
Motor protection	Thermal overload protector (TOP) brought out
Cable exit	Axial
Protection class	I (if protective earth is connected by customer)
Product conforming to standard	EN 61800-5-1; CE
Approval	VDE

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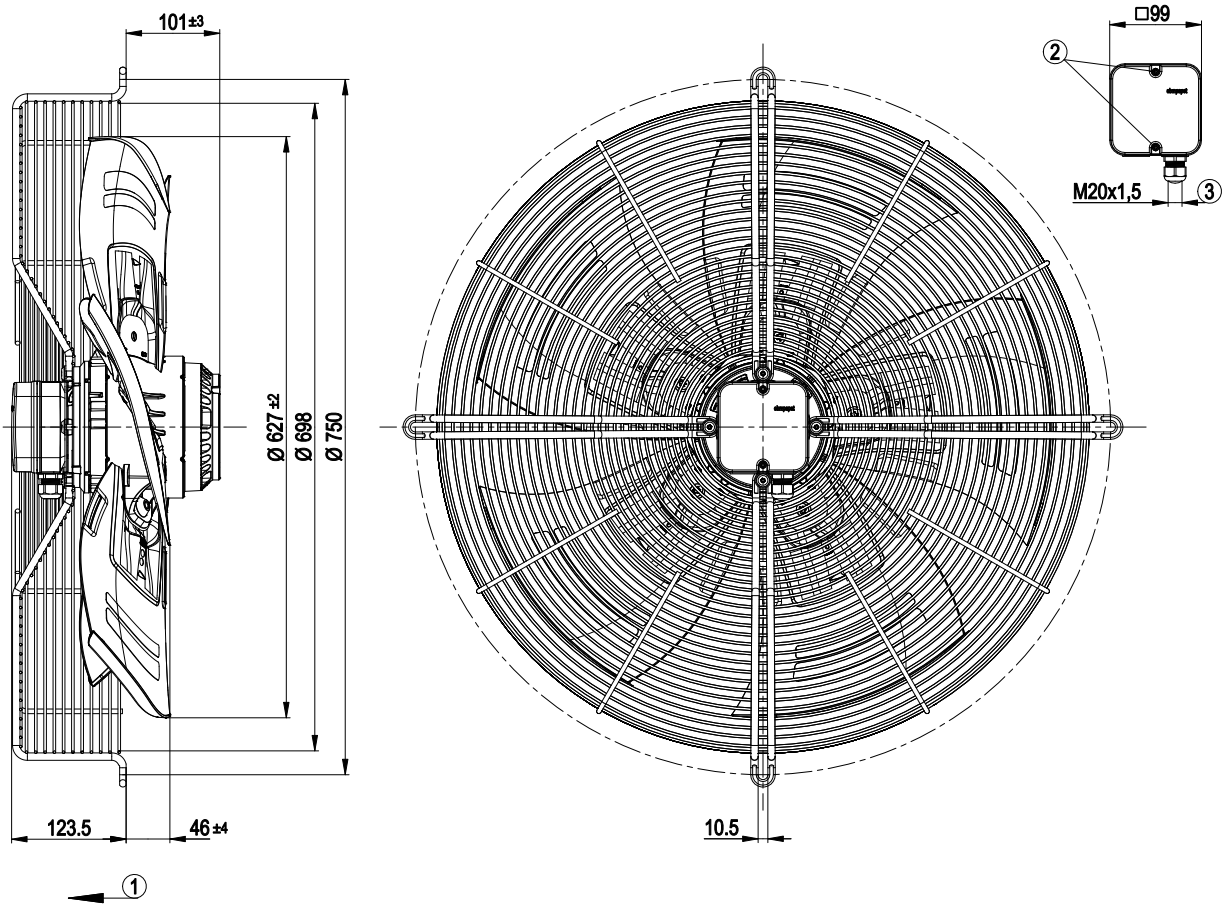
Product drawing



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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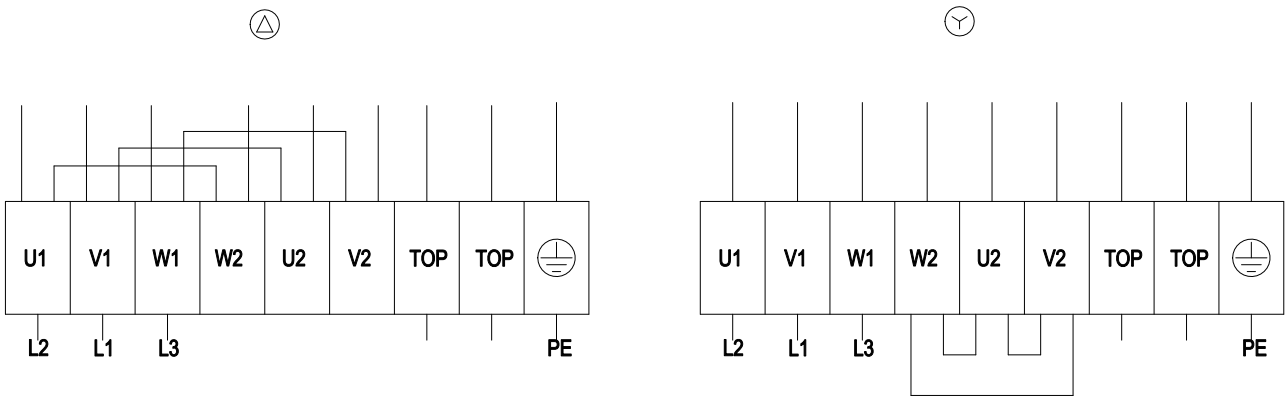
Connection screen



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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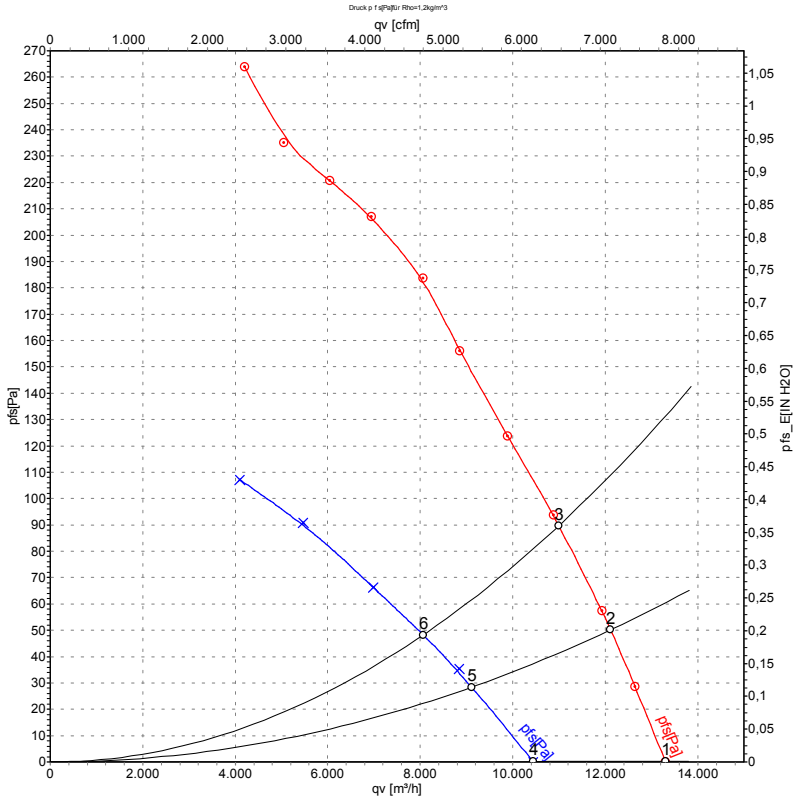
Charts: Air flow 50 Hz



Measurement: LU-127547
Measurement: LU-127784

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}	qv	p_{fs}
		V	Hz	min^{-1}	W	A	dB(A)	dB(A)	dB(A)	m^3/h	Pa
1	Δ	400	50	1330	782	1.53	71	78	77	13300	0
2	Δ	400	50	1295	902	1.71	68	75	75	12120	50
3	Δ	400	50	1260	1000	1.85	66	73	73	10990	90
4	Y	400	50	1035	513	0.90	65	72	71	10440	0
5	Y	400	50	970	550	0.97	62	68	68	9110	29
6	Y	400	50	915	570	1.02	60	67	66	8065	48

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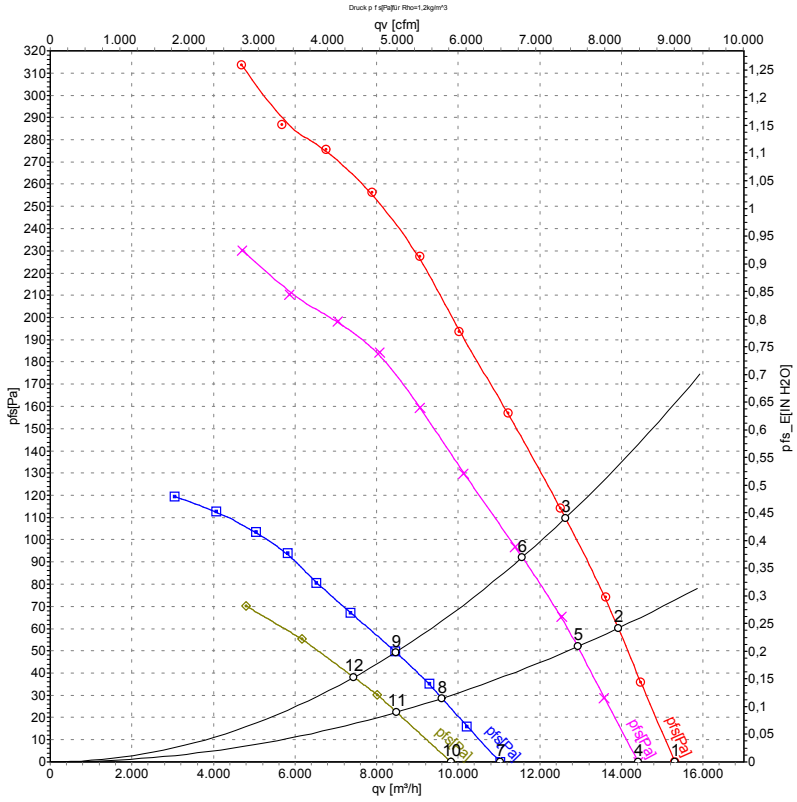
Charts: Air flow 60 Hz



Measurement: LU-137181
Measurement: LU-127706
Measurement: LU-137186
Measurement: LU-127783

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}	qv	p_{fs}
		V	Hz	min^{-1}	W	A	dB(A)	dB(A)	dB(A)	m^3/h	Pa
1	Δ	480	60	1540	1291	2.02	74	81	81	15310	0
2	Δ	480	60	1490	1446	2.21	71	79	78	13920	60
3	Δ	480	60	1440	1590	2.40	69	76	76	12620	110
4	Δ	400	60	1440	1120	2.00	72	79	78	14410	0
5	Δ	400	60	1370	1227	2.17	69	76	75	12930	52
6	Δ	400	60	1310	1320	2.32	66	74	73	11570	92
7	Y	480	60	1095	757	1.11	67	73	72	11030	0
8	Y	480	60	1025	791	1.17	63	70	69	9605	29
9	Y	480	60	960	820	1.22	60	67	67	8470	50
10	Y	400	60	970	578	1.06	63	70	69	9820	0
11	Y	400	60	895	590	1.09	60	67	66	8485	22
12	Y	400	60	835	600	1.10	58	65	65	7440	38