S4D630-AR01-08

AC axial fan - HyBlade

sickled blades (S series)

with guard grille for short nozzle

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Nominal data

Type	**S4D630-AR01-08**
Motor	**M4D110-IA**

Phase		3~	3~
Nominal voltage	VAC	400	400
Connection		Δ	Y
Frequency	Hz	50	50
Type of data definition		ml	ml
Valid for approval / standard		CE	CE
Speed (rpm)	min^{-1}	1330	1070
Power input	W	1250	840
Current draw	A	2.48	1.42
Max. back pressure	Pa	150	100
Min. ambient temperature	°C	-40	-40
Max. ambient temperature	°C	55	55
Starting current	A	10	

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}	%	37.9	34.5
02 Measurement category		A	
03 Efficiency category		Static	
04 Efficiency grade N		43.4	40
05 Variable speed drive		No	

09 Power input P_e	kW	1.35
09 Air flow q_v	m^3/h	8830
09 Pressure increase p_{fs}	Pa	210
10 Speed (rpm) n	min^{-1}	1310
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-107579

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Technical features

Mass	16.5 kg
Size	630 mm
Surface of rotor	Cast in aluminium
Material of terminal box	PP plastic
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	-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
Cable exit	Axial
Protection class	I (if protective earth is connected by customer)
Product conforming to standard	EN 61800-5-1; CE
Approval	VDE; EAC

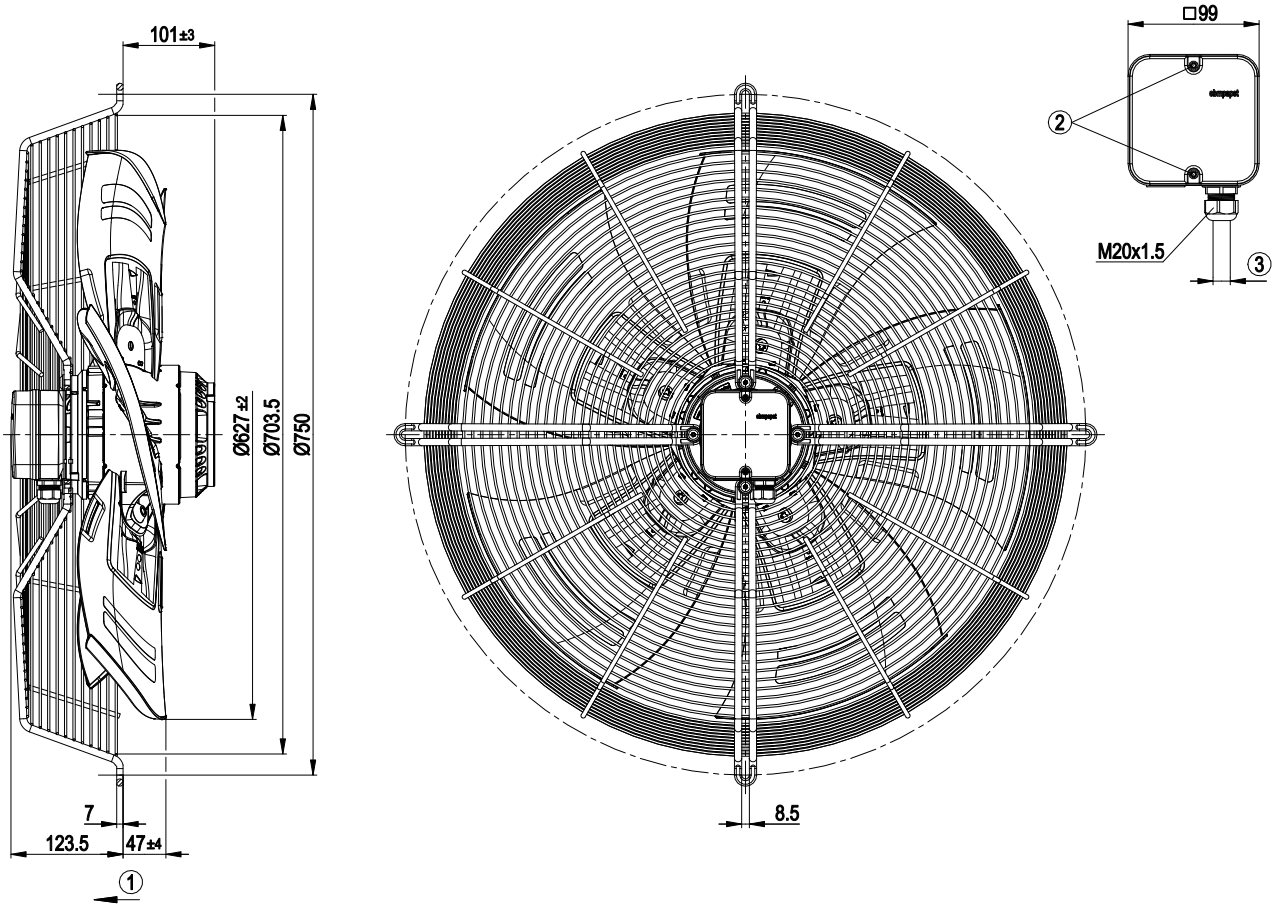
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Product drawing



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

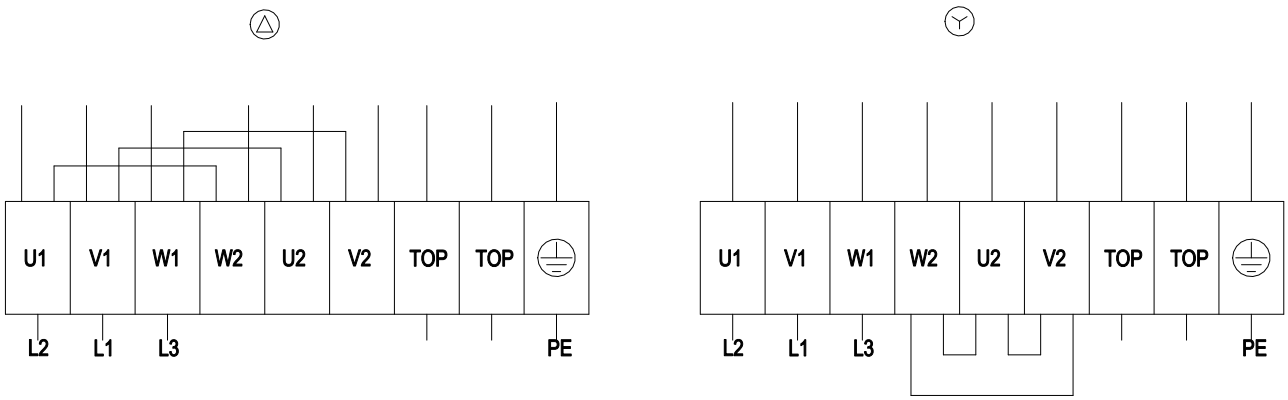
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Connection screen



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				

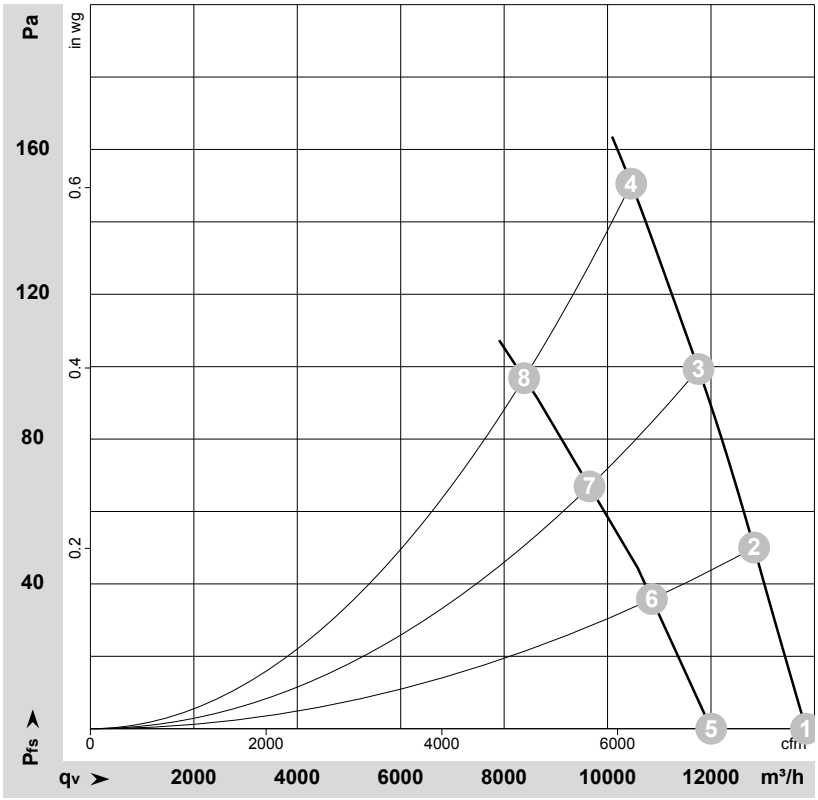
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Charts: Air flow 50 Hz



ρ = 1.177 kg/m³ ± 2 %

Measurement: LU-107579-1
Measurement: LU-107929-1

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	1395	882	2.06	73	79	79	13835	0	8145	0.00
2	Δ	400	50	1375	1006	2.18	70	77	77	12835	50	7555	0.20
3	Δ	400	50	1355	1127	2.31	68	75	75	11760	100	6920	0.40
4	Δ	400	50	1330	1250	2.48	69	75	75	10460	150	6155	0.60
5	Y	400	50	1205	659	1.12	69	76	75	12005	0	7065	0.00
6	Y	400	50	1150	722	1.21	66	73	72	10860	36	6390	0.14
7	Y	400	50	1105	776	1.30	64	71	70	9650	67	5680	0.27
8	Y	400	50	1070	840	1.42	63	70	69	8385	97	4935	0.39

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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