S6D710-BH01-02

AC axial fan - HyBlade®

sickled blades (S series)

with guard grille for full nozzle

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County court Stuttgart · HRB 590142

ErP2015 EXCEEDS THE NORM

Nominal data

Type	**S6D710-BH01-02**
Motor	**M6D138-HF**

Phase		3~	3~	3~	3~
Nominal voltage	VAC	400	400	480	480
Connection		**Δ**	Y	**Δ**	Y
Frequency	Hz	50	50	60	60
Type of data definition		ml	ml	ml	ml
Valid for approval / standard		CE	CE	CE	CE
Speed	min^{-1}	905	730	1060	780
Power input	W	1030	690	1700	1030
Current draw	A	2.35	1.34	2.87	1.72
Max. back pressure	Pa	125	80	170	92
Max. ambient temperature	°C	80	80	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

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}		33,6	29,6	33,6
Efficiency grade N		40	36	40
Power input P_e	kW	0,97		
Air flow q_v	m^3/h	10730		
Pressure increase p_{fs}	Pa	111		
Speed n	min^{-1}	910		

Data established at point of optimum efficiency

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Technical features

Mass	26.1 kg
Size	710 mm
Surface of rotor	Cast in aluminium
Material of terminal box	Plastic, fibreglass-reinforced
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	"A"
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	Any
Condensate discharge holes	On rotor and stator sides
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; EN 60034; CE
Approval	VDE

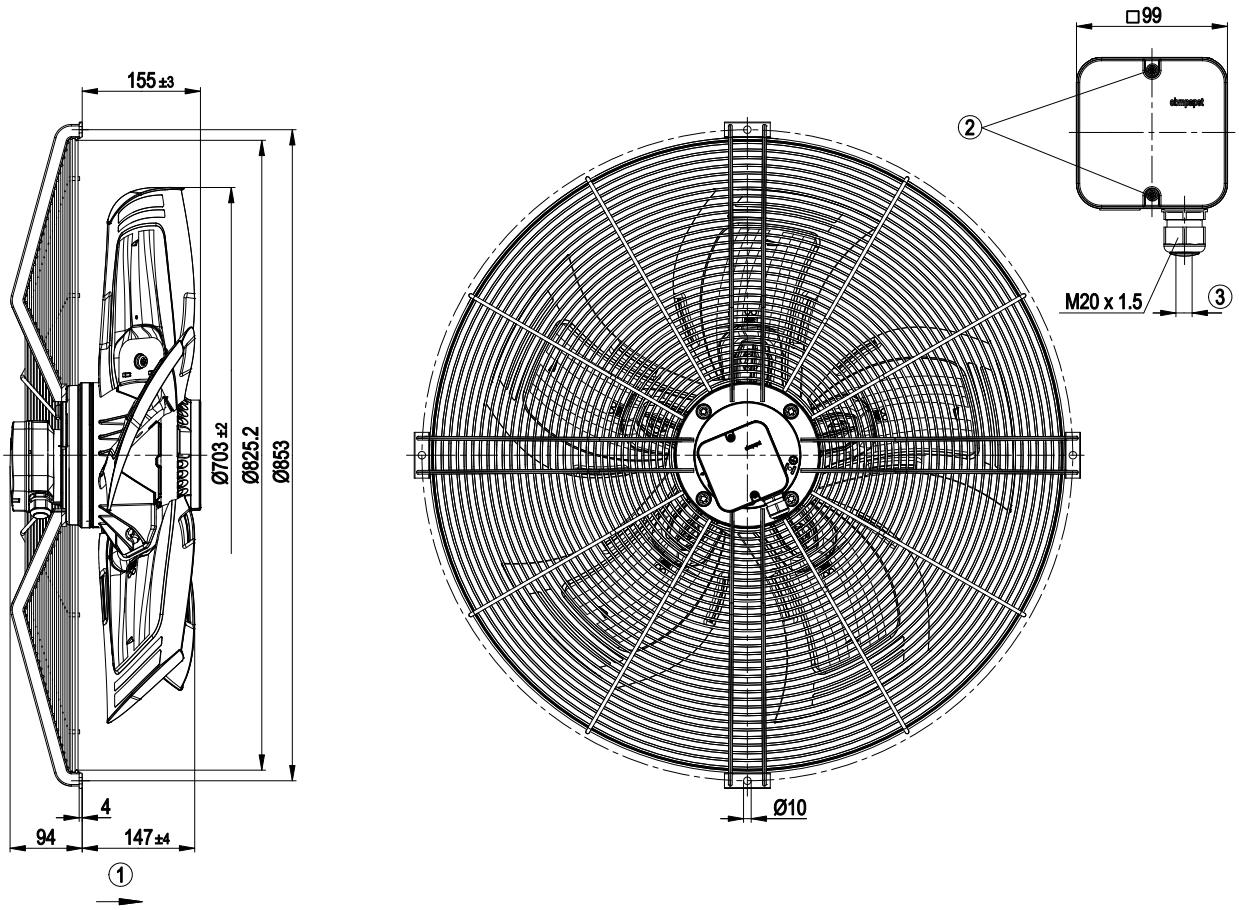
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Product drawing



1	Direction of air flow "A"
2	Tightening torque 1.5±0.2 Nm
3	Cable diameter: min. 7 mm, max. 14 mm; tightening torque: 2±0.3 Nm

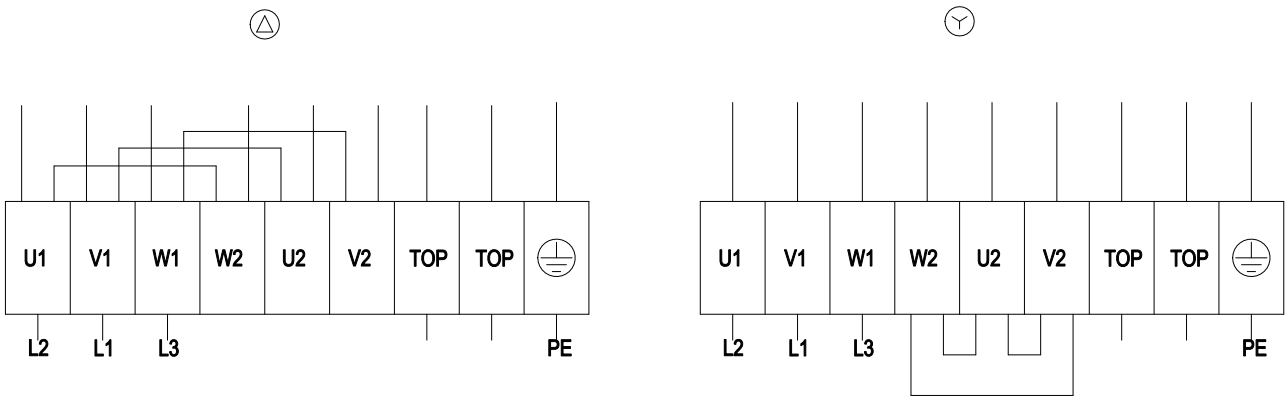
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Connection screen



Note: Direction of rotation changes when two phases are reversed

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

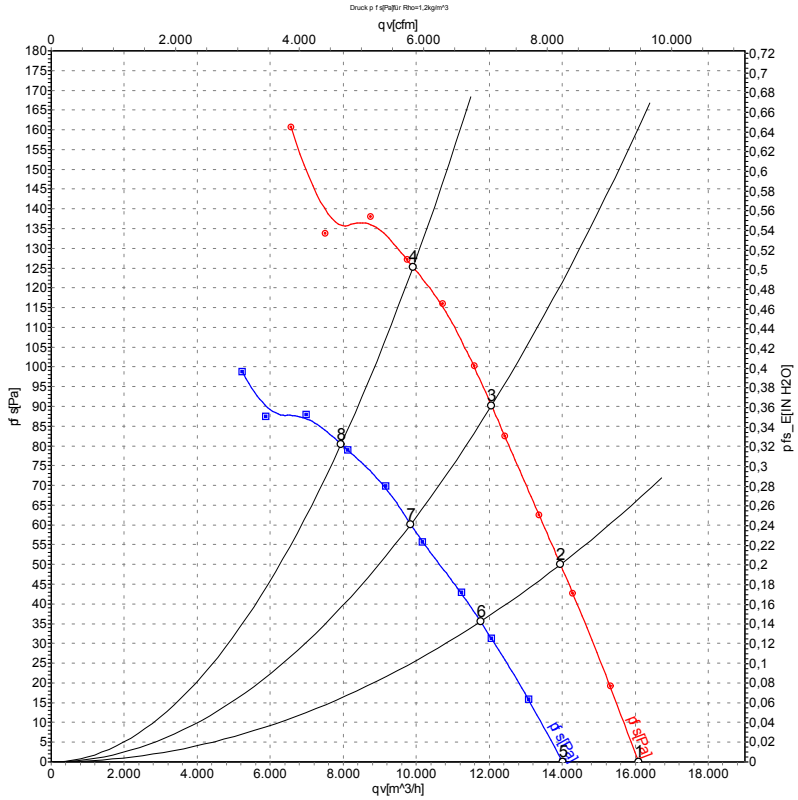
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Charts: Air flow 50 Hz



Measurement: LU-113715
Measurement: LU-113738

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	940	725	2.07	64	71	70	16080	0
2	Δ	400	50	925	859	2.18	62	69	69	13950	50
3	Δ	400	50	915	939	2.26	64	70	69	12060	90
4	Δ	400	50	905	1030	2.35	67	73	72	9910	125
5	Y	400	50	820	542	1.05	61	67	67	14000	0
6	Y	400	50	780	617	1.19	58	65	64	11760	36
7	Y	400	50	755	658	1.27	58	65	64	9845	60
8	Y	400	50	730	690	1.34	61	68	67	7940	80

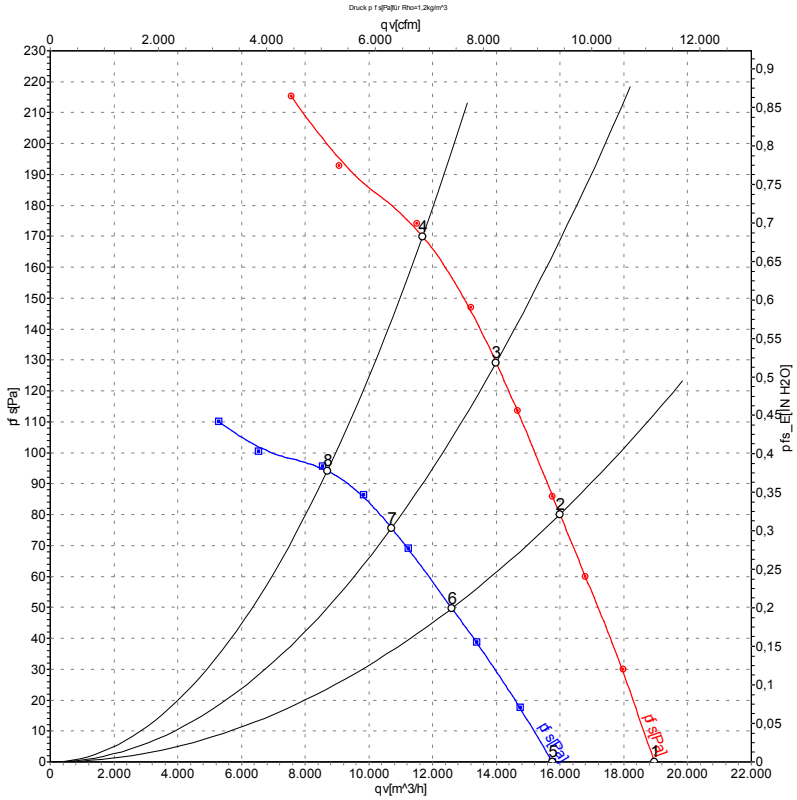
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Charts: Air flow 60 Hz



Measurement: LU-121540
Measurement: LU-121544

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	1115	1191	2.48	67	74	74	18960	0
2	Δ	480	60	1090	1438	2.71	66	73	73	16000	80
3	Δ	480	60	1075	1554	2.83	68	74	74	13990	130
4	Δ	480	60	1060	1700	2.87	71	78	77	11690	170
5	Y	480	60	930	853	1.35	63	70	69	15750	0
6	Y	480	60	860	956	1.53	60	67	66	12600	50
7	Y	480	60	825	994	1.61	60	67	66	10710	76
8	Y	480	60	780	1030	1.72	63	69	69	8695	92

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