S6E710-AR03-01

AC axial fan - HyBlade

sickled blades (S series)

with guard grille for short nozzle

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ErP2015 EXCEEDS THE NORM

Nominal data

Type	**S6E710-AR03-01**	
Motor	**M6E110-IA**	
Phase		1~
Nominal voltage	VAC	230
Frequency	Hz	50
Type of data definition		ml
Valid for approval / standard		CE
Speed	min^{-1}	900
Power input	W	630
Current draw	A	2.79
Motor capacitor	µF	14
Capacitor voltage	VDB	450
Max. back pressure	Pa	105
Min. ambient temperature	°C	-40
Max. ambient temperature	°C	65
Starting current	A	6.9

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}	%	33.4	32.3
02 Measurement category		A	
03 Efficiency category		Static	
04 Efficiency grade N		41.1	40
05 Variable speed drive		No	

09 Power input P_e	kW	0.61
09 Air flow q_v	m^3/h	7510
09 Pressure increase p_{fs}	Pa	99
10 Speed n	min^{-1}	900
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-111673

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Technical features

Mass	19.3 kg
Size	710 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 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
Touch current acc. IEC 60990 (measuring network Fig. 4, TN system)	<= 3.5 mA
Electrical leads	Via terminal box, integrated capacitor connected via terminal box
Motor protection	Thermal overload protector (TOP) brought out
Cable exit	Axial
Protection class	I (if protective earth is connected by customer)
Motor capacitor according to EN 60252-1 in safety protection class	P0/S0
Product conforming to standard	EN 61800-5-1; CE
Approval	CCC; VDE; EAC

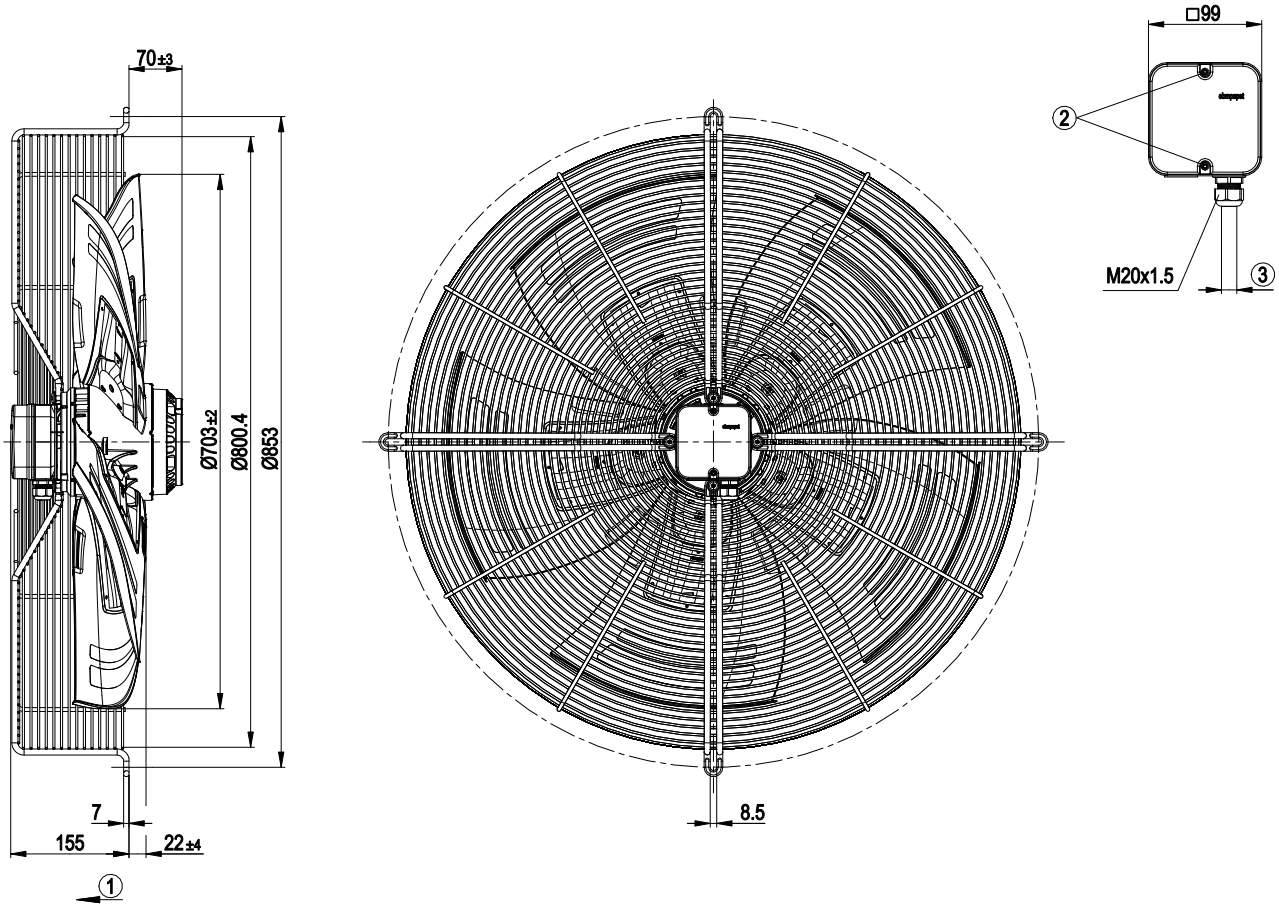
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Product drawing



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

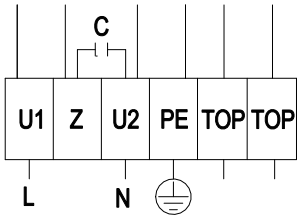
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Connection screen



L	= U1 = blue	Z	brown	N	= U2 = black
PE	green / yellow	TOP	grey		

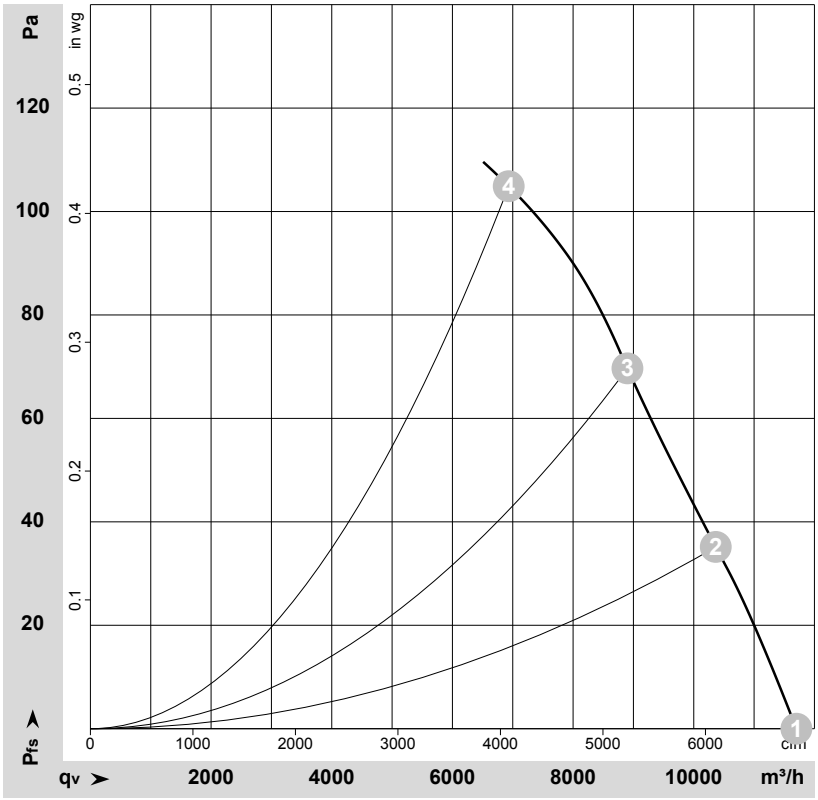
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Charts: Air flow 50 Hz



ρ = 1,15 kg/m³ ± 2%

Measurement: LU-111673

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

	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	230	50	955	428	1.97	67	74	73	11700	0
2	230	50	935	499	2.25	67	73	72	10365	35
3	230	50	915	565	2.53	67	73	72	8900	70
4	230	50	900	630	2.79	72	78	79	6935	105

U = Supply voltage · f = Frequency · n = Speed · 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
qv = Air flow · p_{fs} = Pressure increase

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