A6E710-AR03-01

AC axial fan - HyBlade®

sickled blades (S series)



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ErP2015 EXCEEDS THE NORM

Nominal data

Type	**A6E710-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

Installation category	A
Efficiency category	Static
Variable speed drive	No
Specific ratio*	1.00

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

		Actual	Request 2013	Request 2015
Overall efficiency η_{es}	%	33.4	28.3	32.3
Efficiency grade N		41.1	36	40
Power input P_e	kW	0.61		
Air flow q_v	m^3/h	7510		
Pressure increase p_{fs}	Pa	99		
Speed n	min^{-1}	900		

Data definition with optimum efficiency. LU-111673
The ErP data is determined using a motor-impeller combination in a standardised measurement configuration.

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Technical features

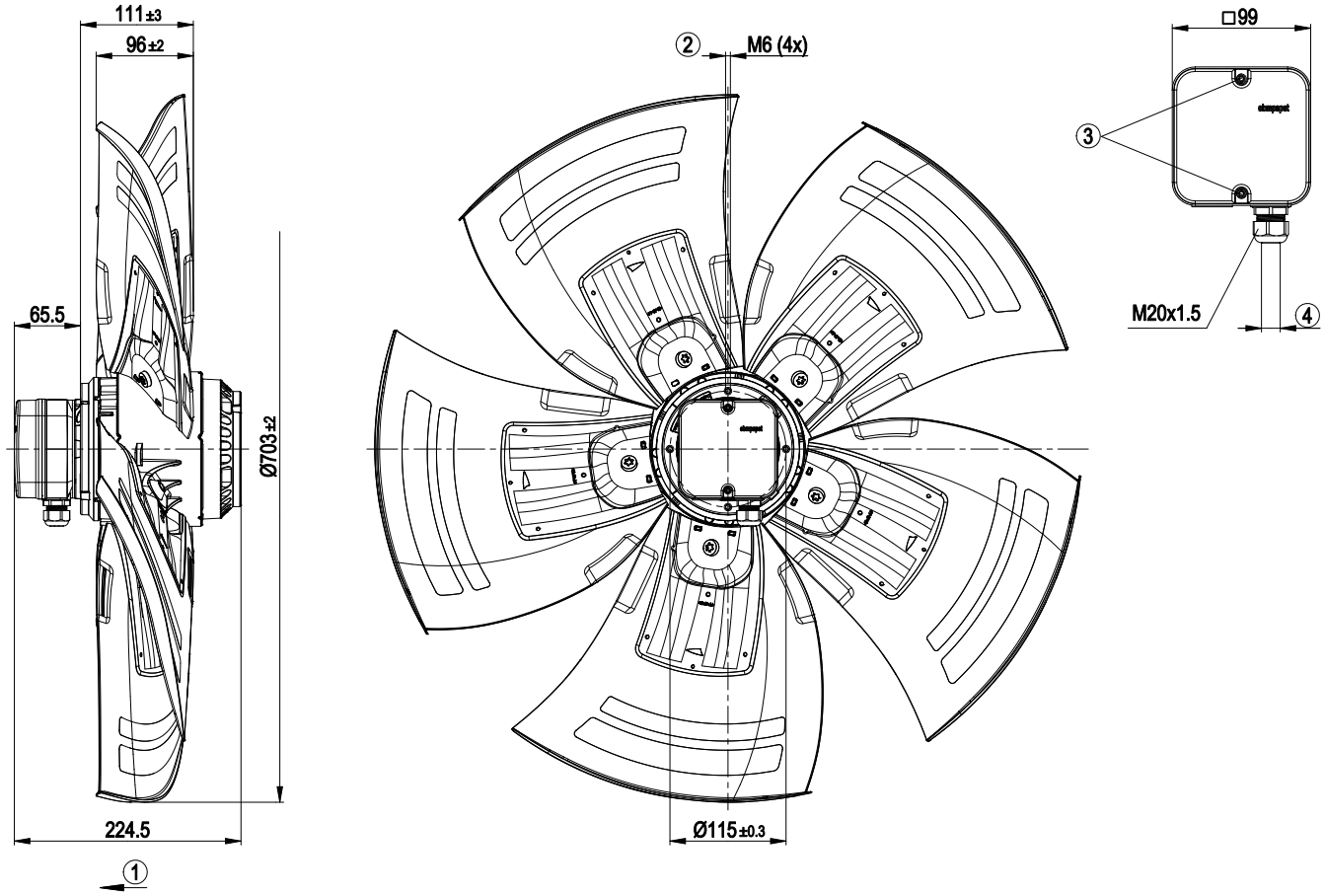
Mass	12.7 kg
Size	710 mm
Surface of rotor	Cast in aluminium
Material of terminal box	PP plastic
Material of blades	Aluminium sheet insert, sprayed with PP plastic
Number of blades	5
Blade angle	-10°
Direction of air flow	"V"
Direction of rotation	Counter-clockwise, seen on rotor
Type of protection	IP 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)
Product conforming to standard	EN 61800-5-1; CE
Approval	CCC; EAC; VDE

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Product drawing



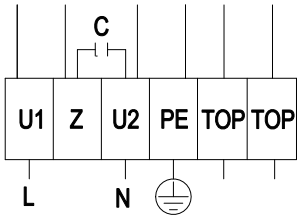
1	Direction of air flow "V"
2	Screw depth max. 12 mm
3	Tightening torque 1.5±0.2 Nm
4	Cable diameter min. 6 mm, max. 12 mm, tightening torque 2±0.3 Nm

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Connection screen



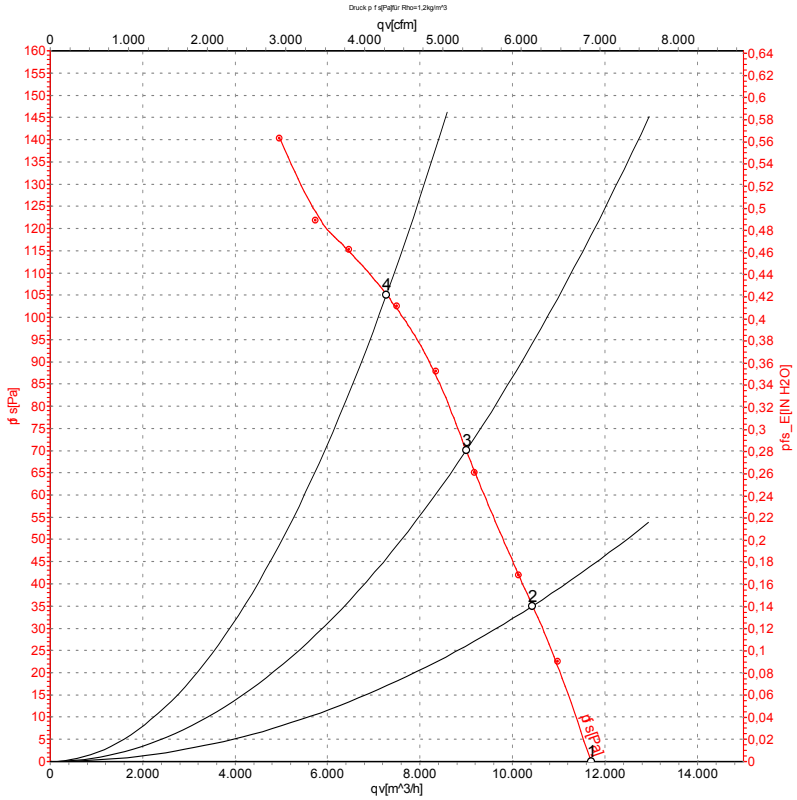
L	= U1 = blue	Z	brown	N	= U2 = black
PE	green / yellow	TOP	grey		

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Charts: Air flow 50 Hz



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	496	2.24	67	73	72	10440	35
3	230	50	920	561	2.51	66	73	72	9000	70
4	230	50	900	630	2.79	70	77	76	7280	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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