S4D560-BQ01-05

AC axial fan - HyBlade

sickled blades (S series)

with guard grille for full nozzle

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Nominal data

Type	**S4D560-BQ01-05**
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}	1350	1110
Power input	W	1100	760
Current draw	A	2.32	1.3
Max. back pressure	Pa	170	115
Min. ambient temperature	°C	-40	-40
Max. ambient temperature	°C	65	65
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}	%	34	34
02 Measurement category		A	
03 Efficiency category		Static	
04 Efficiency grade N		40	40
05 Variable speed drive		No	

09 Power input P_e	kW	1.11
09 Air flow q_v	m^3/h	6990
09 Pressure increase p_{fs}	Pa	193
10 Speed (rpm) n	min^{-1}	1345
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-111140

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Technical features

Mass	15.9 kg
Size	560 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	-5°
Direction of air flow	"A"
Direction of rotation	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 top; rotor on bottom on request
Condensate discharge holes	On the stator 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

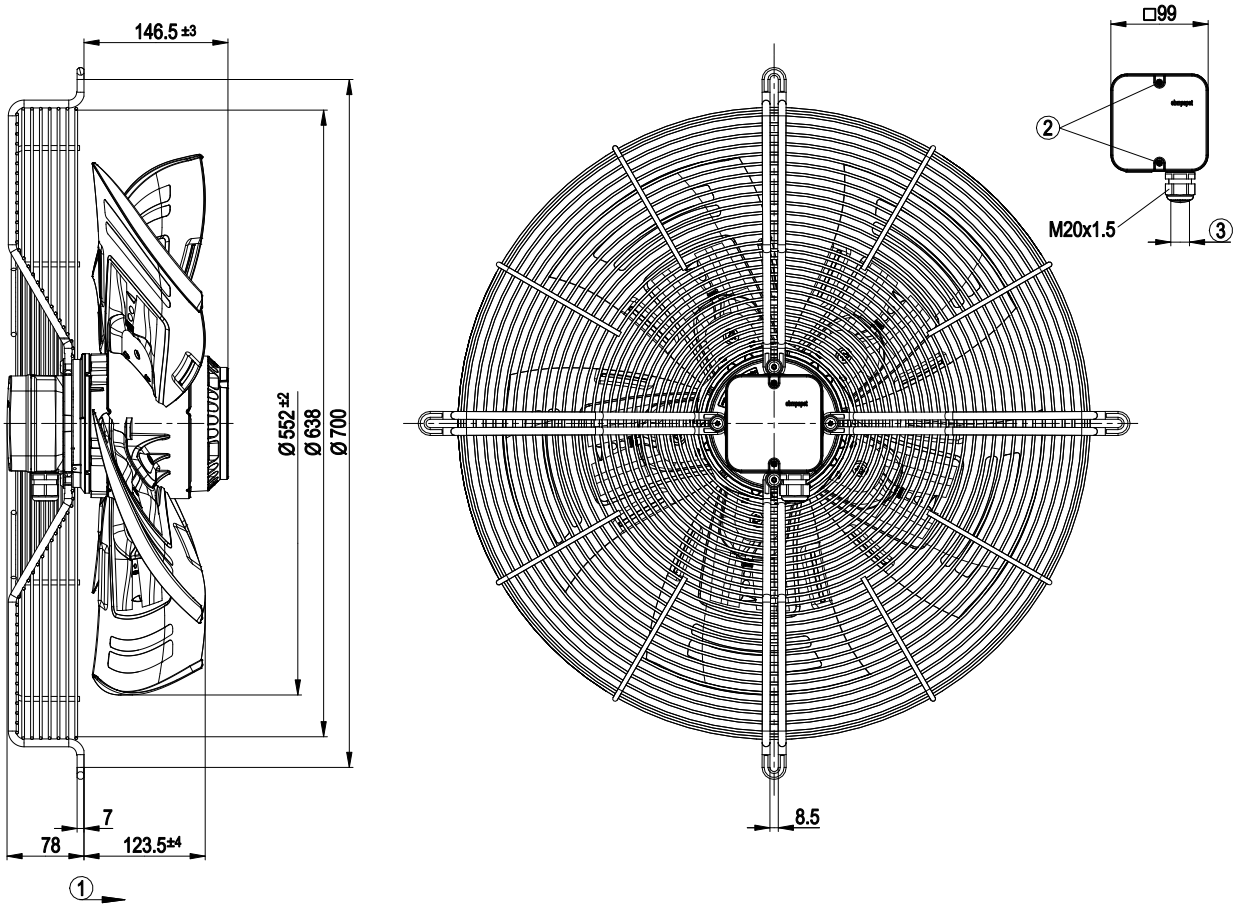
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Product drawing



1	Direction of air flow "A"
2	Tightening torque 1.5±0.2 Nm
3	Cable diameter min. 6 mm, max. 12 mm, tightening torque 2.0±0.3 Nm

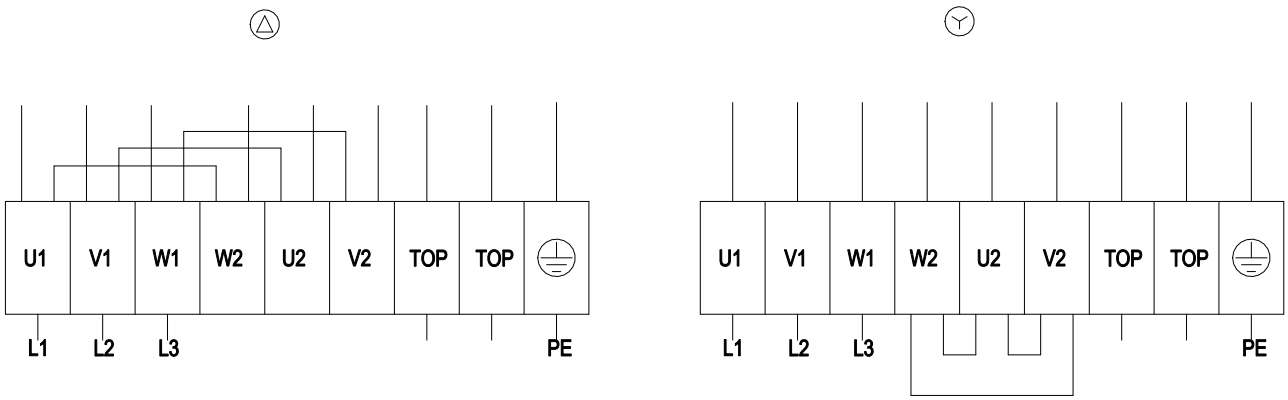
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Connection screen



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

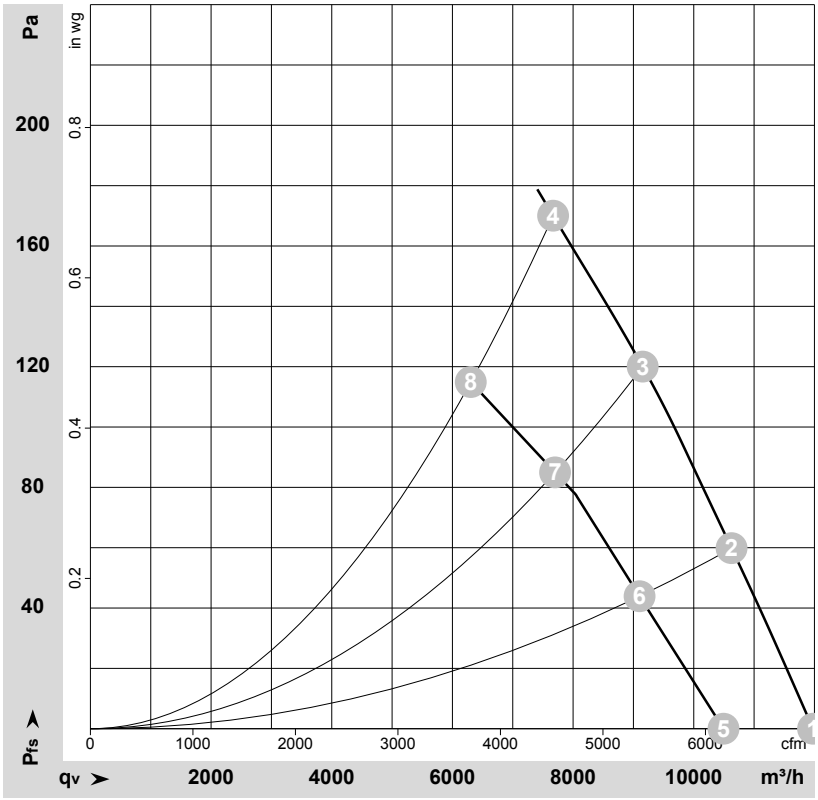
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Charts: Air flow 50 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-111140-1
Measurement: LU-171088-1

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	1400	806	1.98	69	76	76	11975	0	7050	0.00
2	Δ	400	50	1380	919	2.08	67	74	74	10625	60	6255	0.24
3	Δ	400	50	1365	1021	2.18	67	73	73	9155	120	5390	0.48
4	Δ	400	50	1350	1100	2.32	70	77	76	7670	170	4515	0.68
5	Y	400	50	1225	611	1.05	65	72	72	10495	0	6175	0.00
6	Y	400	50	1180	673	1.14	63	70	70	9100	44	5355	0.18
7	Y	400	50	1135	724	1.22	63	71	69	7700	85	4535	0.34
8	Y	400	50	1110	760	1.30	65	74	72	6305	115	3710	0.46

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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