AC axial fan - HyBlade

sickle-shaped blades (S series)

with square full nozzle

ebm-papst Ventilator (Shanghai) Co.,Ltd.

No.418, Hua Jing Road, Wai Gao Qiao Free Trade Zone, Pudong

83

W6D710-DQ01-02/F02 ebmpapst Datasheet

sales@fansco.com

www.fansco.com

Nominal data

Type	**W6D710-DQ01-02/F02**
Motor	**M6D110-IA**

Phase		3~	3~
Nominal voltage	VAC	400	400
Wiring		Δ	Y
Frequency	Hz	50	50
Method of obtaining data		ml	ml
Valid for approval/standard		CE	CE
Speed (rpm)	min^{-1}	880	670
Power consumption	W	840	530
Current draw	A	1.74	0.94
Max. back pressure	Pa	115	68
Max. back pressure	in. wg	0.46	0.27
Min. ambient temperature	°C	-40	-40
Max. ambient temperature	°C	50	50
Starting current	A	5	1.7

ml = Max. load · me = Max. efficiency · fa = Free air · cs = Customer specification · ce = Customer equipment
Subject to change

Data according to Commission Regulation (EU) 327/2011

		Actual	Req. 2015
01 Overall efficiency η_{es}	%	33	33
02 Measurement category		A	
03 Efficiency category		Static	
04 Efficiency grade N		40	40
05 Variable speed drive		No	

09 Power consumption P_e	kW	0.79
09 Air flow q_v	m^3/h	9505
09 Pressure increase p_{fs}	Pa	99
10 Speed (rpm) n	min^{-1}	885
11 Specific ratio*		1.00

Data obtained at optimum efficiency level.
The ErP data is determined using a motor-impeller combination in a standardized measurement setup.

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

LU-108461

ebmpapst

AC axial fan - HyBlade

sickle-shaped blades (S series)

with square full nozzle

Technical description

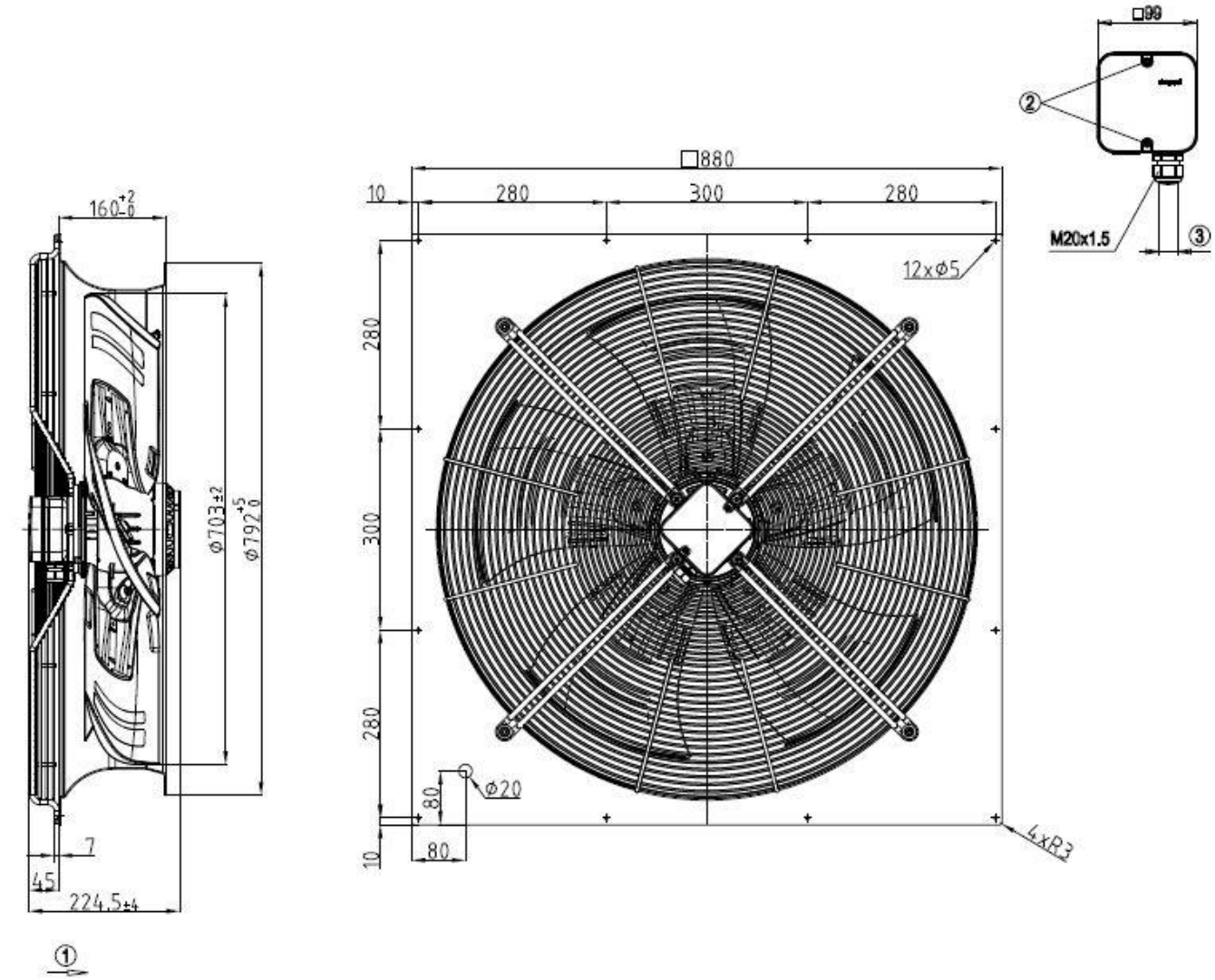
Weight	29.3 kg
Size	710 mm
Motor size	110
Rotor surface	Cast in aluminum
Terminal box material	PP plastic
Blade material	Sheet aluminum insert, sprayed with PP plastic
Fan housing material	Sheet steel, galvanized and coated with black plastic (RAL 9005)
Guard grille material	Steel, galvanized and coated with black plastic (RAL 9005)
Number of blades	5
Blade pitch	-5°
Airflow direction	A
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	IP54
Insulation class	"F"
Moisture (F) / Environmental (H) protection class	H2
Max. permitted ambient temp. for motor (transport/storage)	+ 80 °C
Min. permitted ambient temp. for motor (transport/storage)	- 40 °C
Installation position	Shaft horizontal or rotor on bottom; rotor on top on request
Condensation drainage holes	On rotor side
Mode	S1
Motor bearing	Ball bearing
Touch current according to IEC 60990 (measuring circuit Fig. 4, TN system)	<= 3.5 mA
Electrical hookup	Terminal box
Motor protection	Thermal overload protector (TOP) with basic insulation
With cable	Axial
Protection class	I (with customer connection of protective earth)
Conformity with standards	EN 61800-5-1; CE
Approval	EAC; CCC; VDE

AC axial fan - HyBlade

sickle-shaped blades (S series)

with square full nozzle

Product drawing



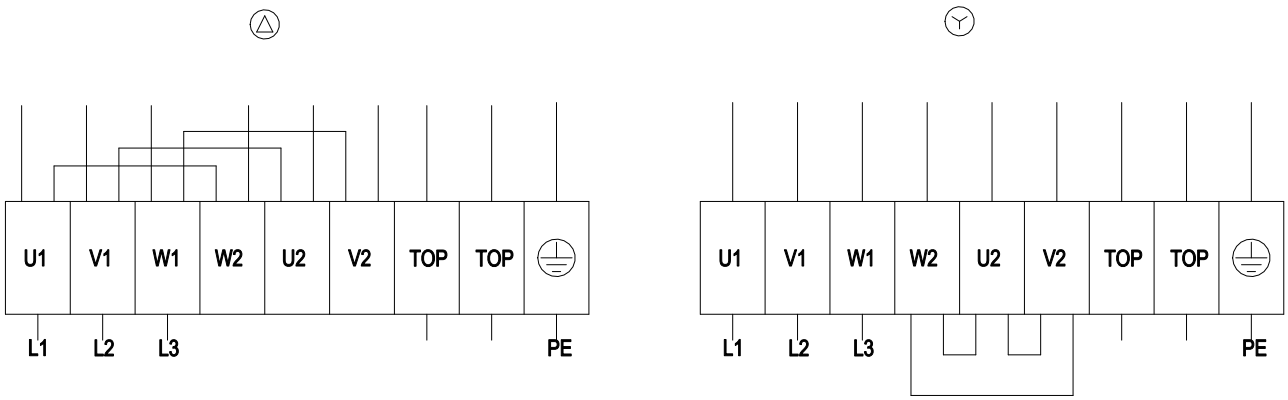
1	Direction of air flow "A"
2	Tightening torque 1.5 ± 0.2 Nm
3	Cable diameter: min. 7 mm, max. 14 mm; tightening torque 2±0.3 Nm

AC axial fan - HyBlade

sickle-shaped blades (S series)

with square full nozzle

Connection diagram



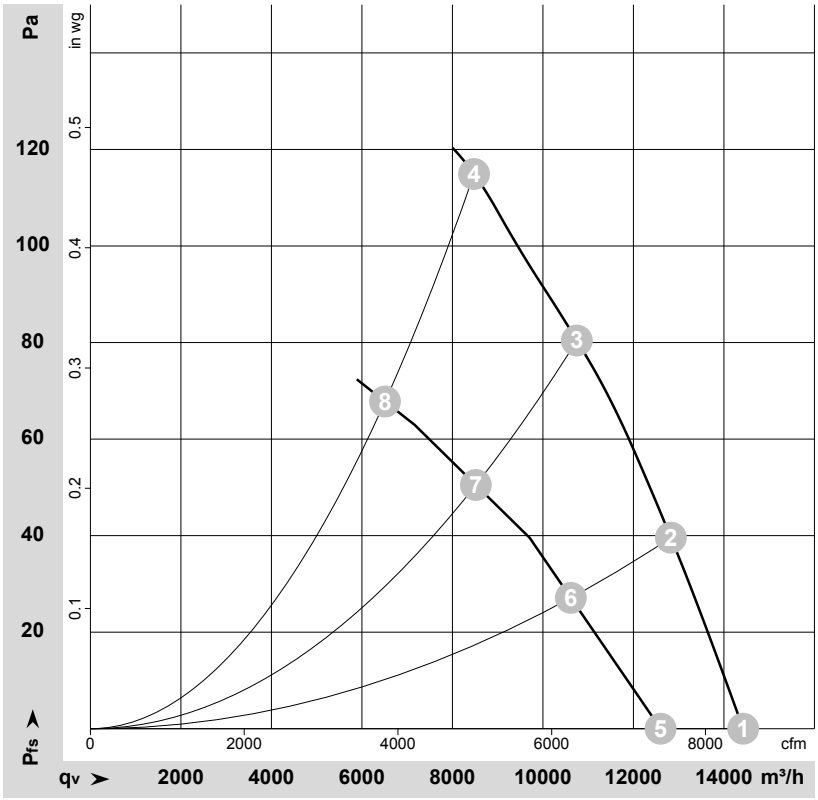
Δ	Delta connection	Y	Star connection	L1	= U1 = black
L2	= V1 = blue	L3	= W1 = brown	W2	yellow
U2	green	V2	white	TOP	2x gray
PE	green/yellow				

AC axial fan - HyBlade

sickle-shaped blades (S series)

with square full nozzle

Curves: Air performance 50 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-108461-1
Measurement: LU-113657-1

Air performance measured according to ISO 5801 installation category A. For detailed information on the measurement setup, contact ebm-papst. Intake sound level: Sound power level according to ISO 13347 / sound pressure level measured at 1 m distance from fan axis. The values given are valid under the specified measuring conditions and may vary due to conditions of installation. For deviations from the standard configuration, the parameters have to be checked on the installed unit.

Measured values

	Wired	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	in. wg
1	Δ	400	50	935	521	1.45	66	73	72	14425	0	8490	0.00
2	Δ	400	50	915	630	1.52	63	69	69	12830	40	7550	0.16
3	Δ	400	50	895	747	1.64	61	68	67	10750	80	6325	0.32
4	Δ	400	50	880	840	1.74	65	71	71	8475	115	4990	0.46
5	Y	400	50	810	377	0.69	63	69	69	12600	0	7415	0.00
6	Y	400	50	755	436	0.78	59	65	64	10615	27	6250	0.11
7	Y	400	50	705	487	0.86	57	63	62	8520	50	5015	0.20
8	Y	400	50	670	530	0.94	59	65	65	6510	68	3830	0.27

Wired = Wiring · U = Voltage · f = Frequency · n = Speed (rpm) · P_e = Power consumption · I = Current draw · LpA_{in} = Sound pressure level intake side · LwA_{in} = Sound power level intake side
LwA_{out} = Sound power level outlet side · q_V = Air flow · p_{fs} = Pressure increase