

Beijing Hengrui Mechanical and Electrical Equipment Co.,Ltd

Phone +86 10-62547612

zhangyu@bjhengrui.cn

en.bjhengrui.com

Nominal data

Type	W4D710-ND01-01		
Motor	M4D138-LA		
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	1350	1100
Power consumption	W	2350	1600
Current draw	A	4.6	2.7
Max. back pressure	Pa	280	175
Max. back pressure	in. wg	1.12	0.7
Min. ambient temperature	°C	-40	-40
Max. ambient temperature	°C	60	60
Starting current	A	19	8.2

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 (EN 17166)

		Actual	Req. 2015			
01 Overall efficiency η_{es}	%	43.2	35.9	09 Power consumption P_e	kW	2.25
02 Measurement category		A		09 Air flow q_v	m ³ /h	13930
03 Efficiency category		Static		09 Pressure increase p_{fs}	Pa	253
04 Efficiency grade N		47.3	40	10 Speed (rpm) n	min ⁻¹	1365
05 Variable speed drive		No		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 = $1 + p_{fs} / 100\,000\text{ Pa}$

LU-204560



AC axial fan - AxiBlade

sickle-shaped blades (S series)

with square full nozzle

Technical description

Weight	42 kg
Size	710 mm
Motor size	138
Rotor surface	Cast in aluminum
Terminal box material	PP plastic
Blade material	PP plastic
Fan housing material	Sheet steel, galvanized and coated with black plastic (RAL 9005)
Guard grille material	Steel, coated with black plastic (RAL 9005)
Number of blades	5
Blade pitch	0°
Airflow direction	V
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	IP54
Insulation class	"F"
Moisture (F) / Environmental (H) protection class	H2
Ambient temperature note	Occasional start-up at temperatures between -40°C and -25°C is permitted. For continuous operation at ambient temperatures below -25°C (such as refrigeration applications), use must be made of a fan design with special low-temperature bearings.
Max. permitted ambient temp. for motor (transport/storage)	+80 °C
Min. permitted ambient temp. for motor (transport/storage)	-40 °C
Installation position	Any
Condensation drainage holes	On rotor and stator sides
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
Protection class	I (with customer connection of protective earth)
Conformity with standards	EN 60335-1; EN 61800-5-1; CE
Approval	VDE; EAC

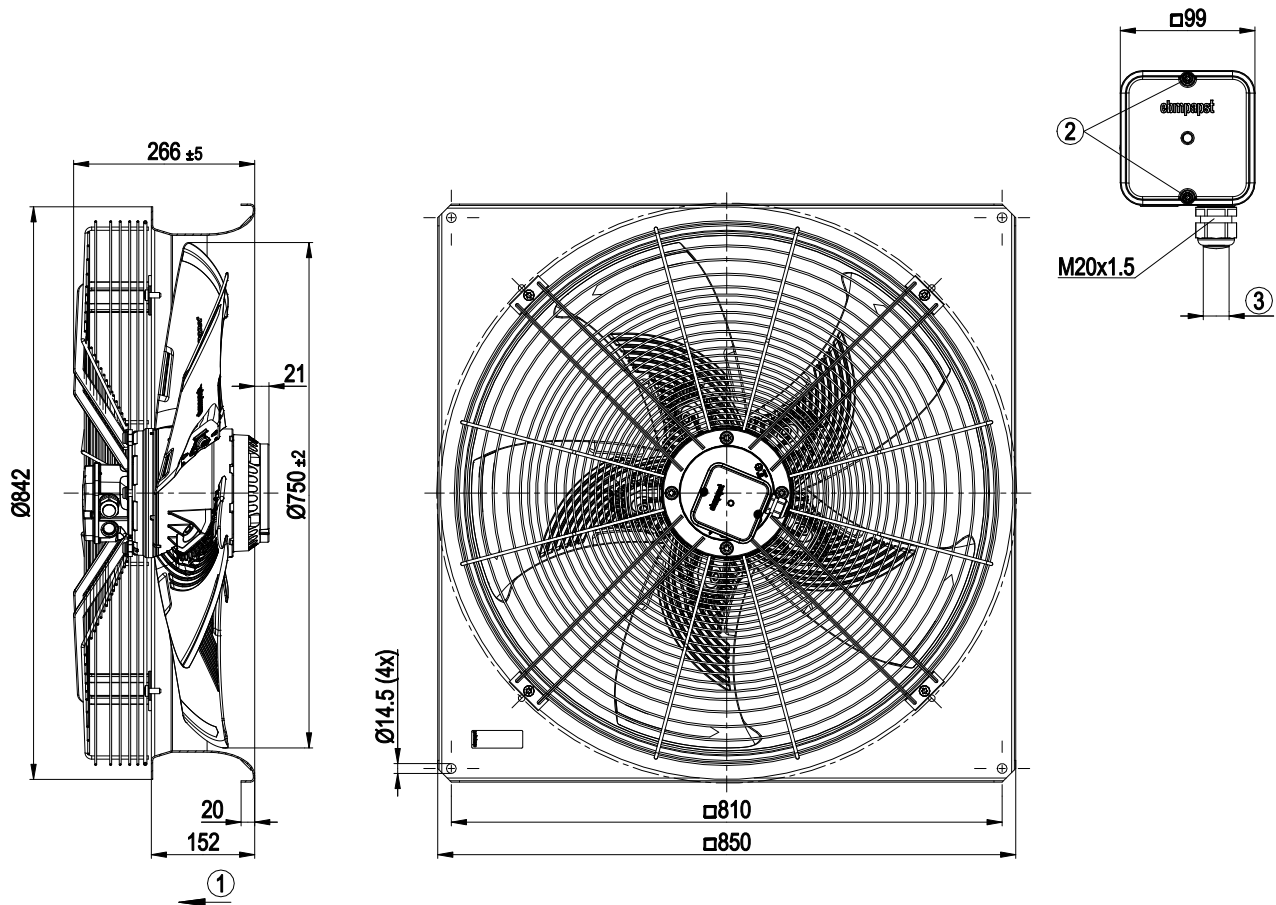


AC axial fan - AxiBlade

sickle-shaped blades (S series)

with square full nozzle

Product drawing

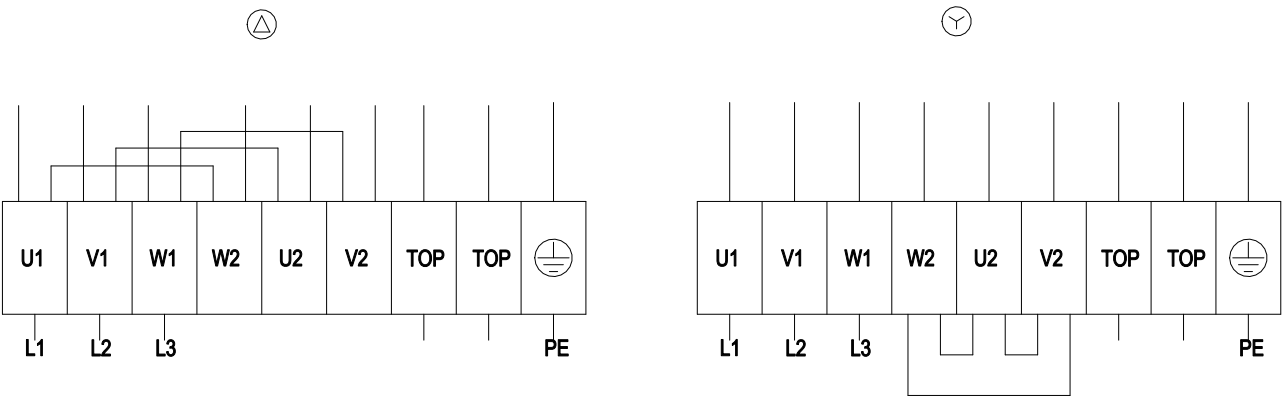


1	Airflow direction "V"
2	Tightening torque 1.5 ± 0.2 Nm
3	Cable diameter min. 7 mm, max. 14 mm, tightening torque 4 ± 0.6 Nm

AC axial fan - AxiBlade

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				

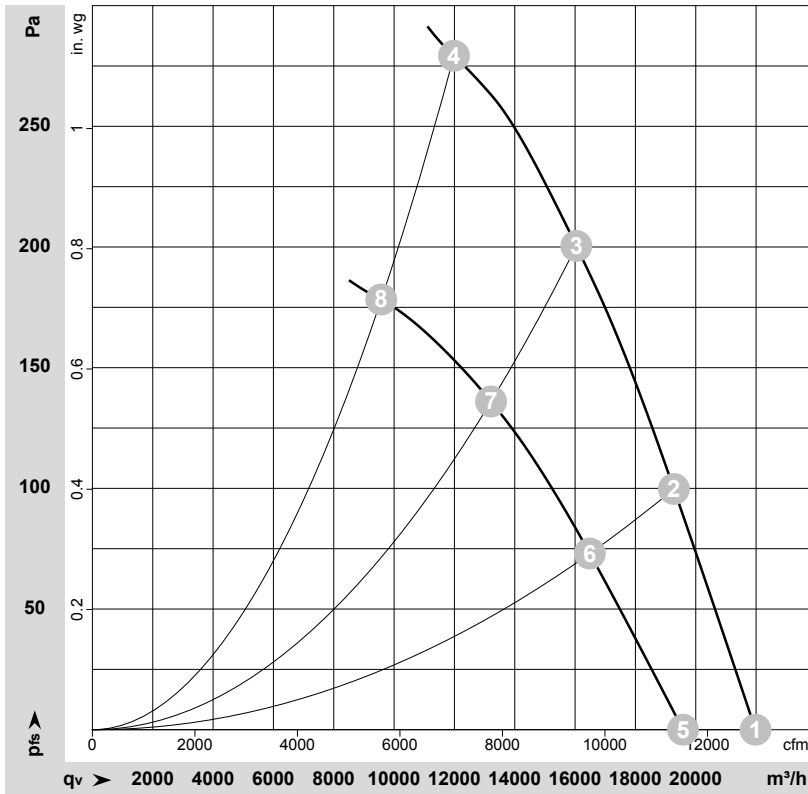


AC axial fan - AxiBlade

sickle-shaped blades (S series)

with square full nozzle

Curves: Air performance 50 Hz



$$\rho = 1.15 \text{ kg/m}^3 \pm 2 \%$$

Measurement: LU-204560-1
Measurement: LU-204742-1

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	1425	1412	3.40	74	81	82	21980	0	12940	0.00
2	Δ	400	50	1400	1762	3.81	72	79	81	19275	100	11345	0.40
3	Δ	400	50	1375	2098	4.23	74	81	81	16040	200	9440	0.80
4	Δ	400	50	1350	2350	4.60	80	88	89	11985	280	7055	1.12
5	Y	400	50	1265	1109	1.88	71	78	79	19575	0	11525	0.00
6	Y	400	50	1200	1336	2.25	68	75	76	16490	73	9705	0.29
7	Y	400	50	1135	1508	2.54	69	75	76	13215	137	7775	0.55
8	Y	400	50	1100	1600	2.70	74	81	82	9575	175	5635	0.70

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

