





NINJA SERIES

HALF-CELL N-TYPE TOPCON
ALL BLACK GLASS-GLASS BIFACIAL MODULE

TYPE: WSM-22DHP-220~240W

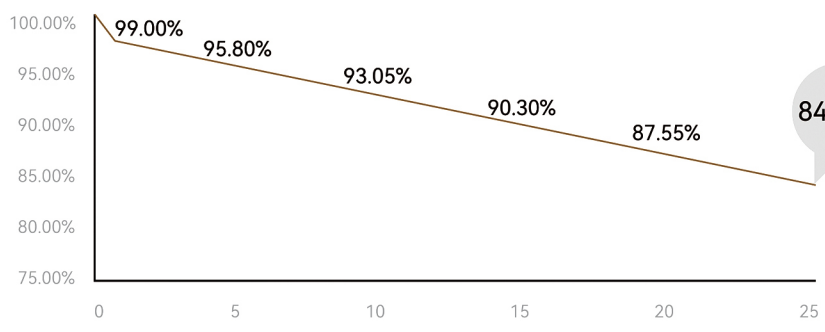
220-240W
POWER OUTPUT

22.8%
MAX EFFICIENCY

-  **High module conversion efficiency**
Module efficiency up to 22.8% achieved through advanced cell technology and manufacturing process
-  **Multi busbar technology**
Superior optical utilization and current collection capacity, effectively improving product power and reliability
-  **Excellent low light performance**
More Power output in low light conditions such as cloudy days, mornings and evenings
-  **Superior load-bearing capacity**
Module certified to withstand 5400 Pa front side max static test load and 2400 Pa rear side max static test load

MANAGEMENT SYSTEM AND PRODUCT CERTIFICATION

- ISO45001:** 2018/Occupational Health and Safety Management System
- ISO14001:** 2015/Environment Management System
- ISO9001:** 2015/Quality Management System



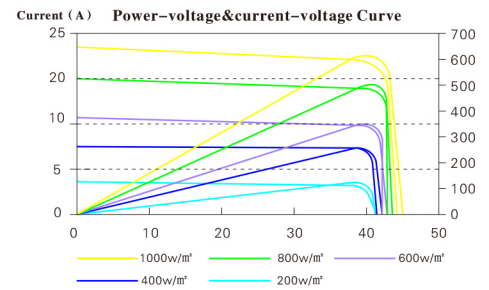
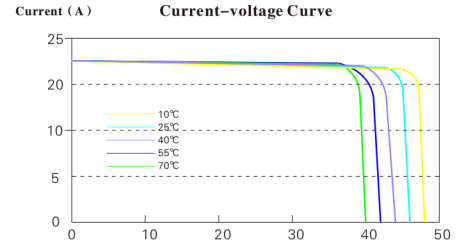
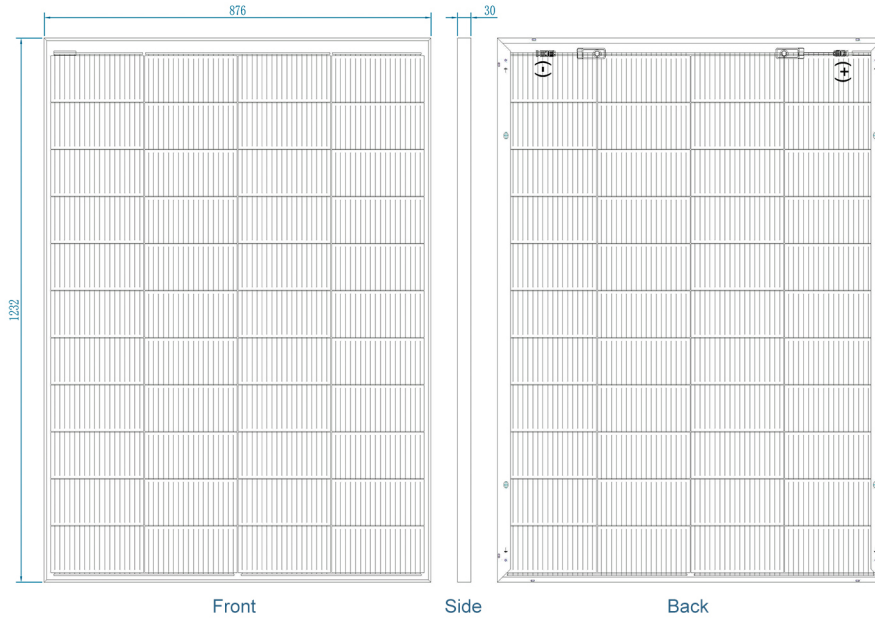
25-year
Warranty for materials



30-year
Warranty for linear power output

Manufactured by
DANYANG WEISHENG ELECTRONICS CO., LTD
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Electrical properties

Component model	WSM-22DHP-220~240W				
Test conditions	STC/NOCT	STC/NOCT	STC/NOCT	STC/NOCT	STC/NOCT
Peak power(Pmax/W)	220/166	225/170	230/174	235/178	240/182
Open circuit voltage(Voc/V)	31.62/29.75	31.88/30	32.14/30.24	32.4/30.49	32.66/30.73
Short circuit current(Isc/A)	8.91/7.17	8.99/7.24	9.07/7.3	9.15/7.37	9.23/7.43
Peak operating woltage(Vmp/V)	26.04/24.19	26.44/24.56	26.84/24.94	27.61/25.66	28.4/26.39
Pcak operating current(Imp/A)	8.45/6.89	8.51/6.94	8.57/6.98	8.51/6.94	8.45/6.89
Component conersion efficiency(%)	20.38	20.85	21.31	21.77	22.24

Measured value under standard test conditions (atmospheric mass AM1.5, irradiance 1000W/m², battery temperature 25°C), measurement tolerance: ±3%; NOCT: irradiance 800W/m², ambient temperature 20°C, wind speed 1m/s.

Product specifications

Solar cell	Mono-crystalline 210*182mm
Qty	44pcs
Dimension	1232x876x30mm
Weight	12.6kg
Glass	2.0mm+2.0mm tempered glass
Frame	Aluminum oxide alloy
JunctionBox	IP68, 2 diodes
Output cable	4.0mm ² , (-) 300mm (+) 300mm in length

*Product specifications are subject to change without notice

Temperature characteristics

Nominal component operating temperature	43°C (± 2°C)
Peak power temperature coefficient	-0.34% /°C
Open circuit voltage temperature coefficient	-0.25% /°C
Short circuit voltage temperature coefficient	0.04% /°C

Packaging information

Qty per box	36pcs
Qty per 40ft HQ container	1296pcs

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