Shingling monofacial module

Advantages

Shingling Technology

- Innovative structure, low-temperature adhesive bonding, high-density layout.

Super Safety and Reliability

- No hidden welding crack, low operating temperature, high pressure resistance.

Eco-Friendly

- Adhering to the green philosophy, fluorine-free and low-lead.

Low Hot Spot Risk

- Parallel circuit design reduces shading loss.

Low Shading Loss

- Full parallel arrangement brings higher efficient generating hours.

Low System Cost

- High module efficiency, reducing system cost

425W
Max Power output

22.1%
Max Panel Efficiency

<2㎡
Mini size

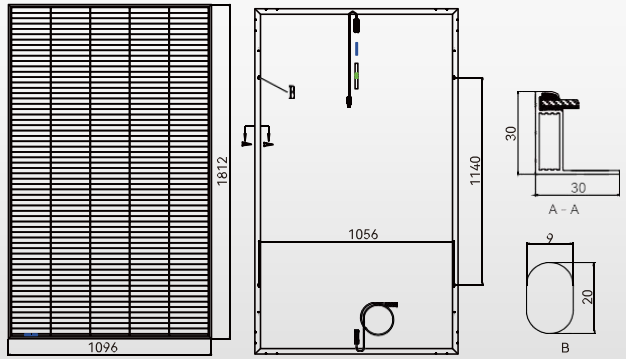
SHINGLED
210 wafer

SHINGLED

UP-S400-425MB

Maximum power of the SHINGLED series ： 670W

upinsolar



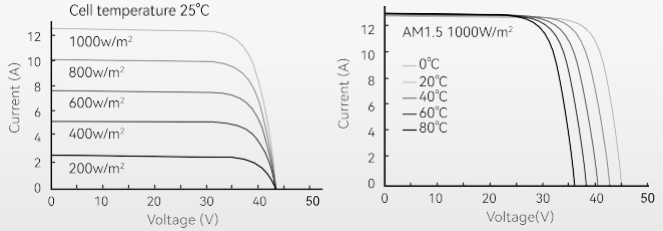
Electrical data(STC)

UP S 410-425 MB	425	420	415	410	405	400
Maximum Power: Pmax [W]	425	420	415	410	405	400
Open Circuit Voltage: Voc [V]	41.7	41.6	41.5	41.4	41.3	41.2
Short Circuit Current: Isc [A]	13.03	12.92	12.80	12.65	12.53	12.41
Voltage at Maximum Power: Vmp [V]	34.6	34.5	34.4	34.4	34.3	34.2
Current at Maximum Power: Imp [A]	12.30	12.19	12.08	11.93	11.82	11.71
Module Efficiency: η [%]	21.4	21.1	20.9	20.6	20.4	20.1

Electrical data(NOCT)

Maximum Power: Pmax [W]	320	316	312	309	305	301
Open Circuit Voltage: Voc [V]	39.8	39.7	39.6	39.5	39.4	39.3
Short Circuit Current: Isc [A]	10.50	10.41	10.31	10.19	10.09	10.00
Voltage at Maximum Power: Vmp [V]	33.0	32.9	32.8	32.8	32.7	32.6
Current at Maximum Power: Imp [A]	9.70	9.62	9.53	9.41	9.33	9.24

1. Standard Test Conditions [STC]: Irradiance 1000 W/m², AM 1.5; ambient temperature 25°C according to EN 60904-3.
2. Nominal Module Operating Temperature (NMOT): Irradiance 800W/ m², wind speed 1m/s , amb ent temperature 20°C.
3. Tolerance of Pm: 0~+5W. Measuring uncertainty of power: ±3%. Performance deviation of Voc [V], Isc [A], Vm [V] and Im [A]: ±3%.



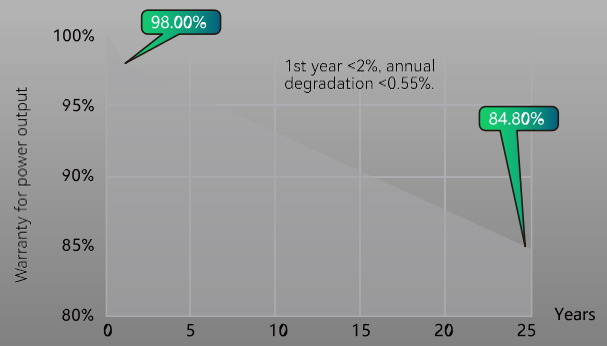
Quality Management System and Product Certification

IEC61215/61730、IEC62804(PID)、IEC61701(Salt)、
IEC62716 (Ammonia)、IEC60068-2-68(Sand)
ISO 9001:2015 / quality management system
ISO 14001:2015 / environmental management system
ISO 45001:2018 / occupation health safety management system
ISO 50001:2011 / energy management system
IEC TS 62941—2016 / PV industry quality management system

Mechanical Data

Dimensions	1812 × 1096 × 30mm
Weight	20.8kg±3%
Front glass	tempered glass, 3.2mm
Frame	Anodized aluminum profile
Cells	Mono-crystalline solar cell
Cell Orientation	305 (61 × 5)
Junction Box	IP68, two diodes; Connector : Staubil EVO2
Cable	4mm²,+300mm/-1000mm(Vertical), +220mm/-180mm(Horizontal)
Packaging	30pallets : 36pcs/ pallet + 2 pallets : 30pcs/ pallet

Linear Power Output Warranty



Temperature Ratings

NMOT	42.30 °C (±2°C)
Temperature Coefficient of Voc	-0.27%/°C
Temperature Coefficient of Isc	+0.04%/°C
Temperature Coefficient of Pm	-0.34%/°C
Maximum System Voltage [V]	DC1500 (IEC)
Series Fuse Rating [A]	25
Maximum Surface Load Capacity [Pa]	Front 5400 / Back 2400
Temperature Range [°C]	-40 ~ + 85
Withstanding Hail	Maximum diameter of 25mm with impact speed of 23m/s

SHINGLED