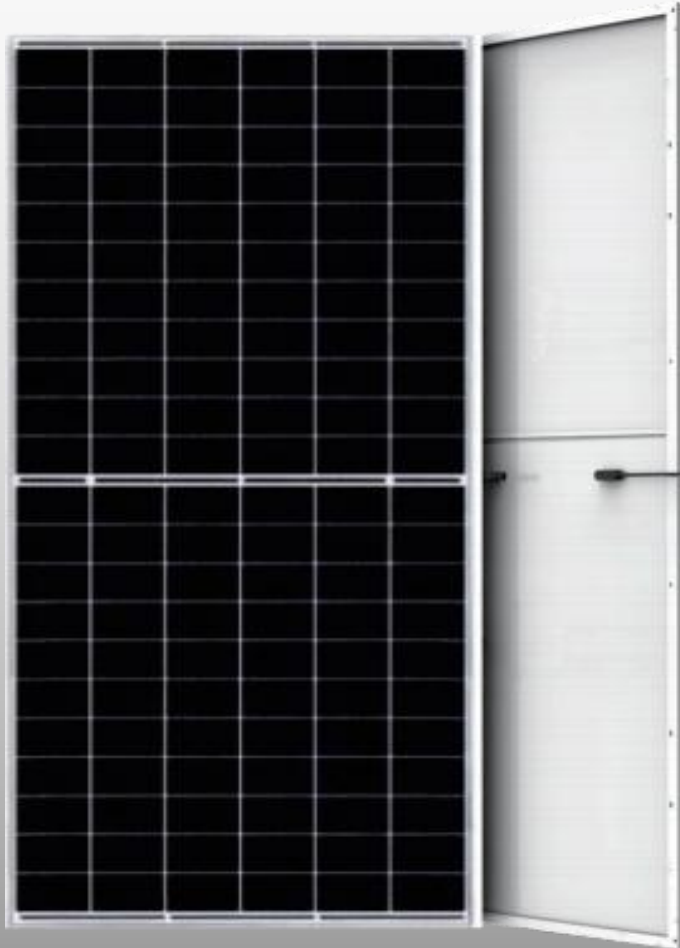


M12/210mm Cell 132 Half-Cell Layout



Advantages

Deliver Reliable Performance Over Time

- manufacturer of crystalline silicon photovoltaic modules
- Fully automatic facility and world-class technology
- Rigorous quality control to meet the highest standard: ISO9001:2015, ISO14001:2015 and OHSAS: 180012007
- Tested for harsh environments [salt mist, ammonia corrosion and sandblowing test: IEC 61701, IEC 62716, DIN EN 60068-2-68]
- Long term reliability tests
- 2x100% EL inspection ensuring defect-free modules

Highly transparent

- self-cleaning glass brings additional yield and easy maintenance

670W

Max Power output

21.7%

Max Panel Efficiency

low hotspot risk

Special cutting and soldering technology leads

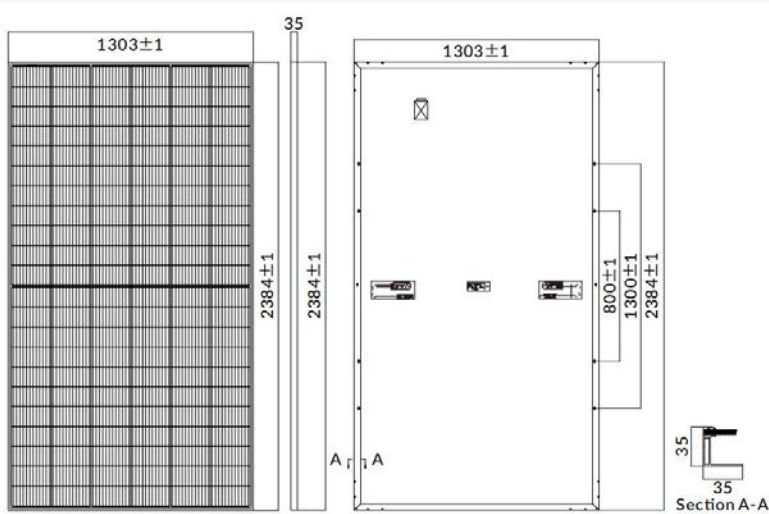
0-5w

Power Output Guarantee

PERC

UP-655-670MB

Maximum power of the PERC series : 675W



Mechanical Characteristics

Number of cells	132 pcs
Size of cell (mm)	210*105
Type of cell	Mono
Thickness of glass (mm)	3.2
Type of frame	Anodized aluminum alloy
Junction box	IP68
Size of module (mm)	2384*1303*35
Weight (kg)	32.9
Cables/connectors	4mm ² , MC4 compatible
Length of	Cable Portrait : +300mm/-300mm

Electrical Characteristics

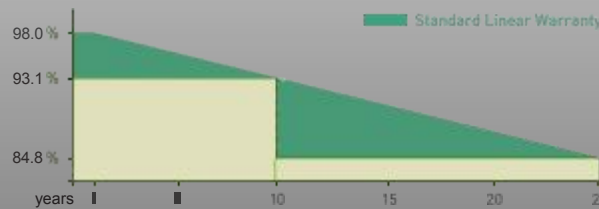
Power level	650	655	660	665	670
P _{max} (W)	650	655	660	665	670
V _{mp} (V)	37.51	37.67	37.83	38.00	38.16
I _{mp} (A)	17.33	17.39	17.45	17.50	17.56
V _{oc} (V)	45.34	45.49	45.64	45.80	45.97
I _{sc} (A)	18.38	18.44	18.50	18.55	18.61
Module efficiency (%)	20.92	21.08	21.24	21.40	21.56
Maximum system voltage (V)	1500				
Fuse Rating (A)	30				
Temperature coefficient P _{max} (%/°C)	-0.34				
Temperature coefficient I _{sc} (%/°C)	0.04				
Temperature coefficient V _{oc} (%/°C)	-0.25				

STC: Irradiance 1000W/m², module temperature 25°C, AM=1.5

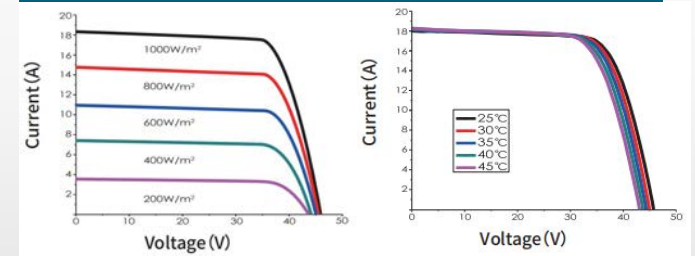
Working Characteristics

Power level	650	655	660	665	670
P _{max} (W)	492	495	499	503	507
V _{mp} (V)	34.70	34.79	34.95	35.13	35.29
I _{mp} (A)	14.18	14.23	14.28	14.32	14.37
V _{oc} (V)	42.17	42.31	42.45	42.60	42.76
I _{sc} (A)	15.04	15.09	15.14	15.18	15.23
Power tolerance (%)	0~+3				
NOCT (°C)	44±2				

Linear Performance Warranty



I-V Curves



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



Packing Configuration

Pieces per pallet	31
Size of packing (mm)	1350*1130*2515
Weight of packing (kg)	1085
Pieces per container	558
Size of container	40' HC

PERC