

210 MBB Bifacial Half-cell Mono Perc Module



Power Scope
640W~660W



Power Tolerance
0W~ +5W



Maximum Efficiency
21.2%

Features and Benefits



The application of multi-busbar (MBB) half-cut cell technology brings stronger resistance to shade and lower risk of hot spot.



Strict control on raw materials and process optimization of high efficiency PERC ensure better resistance against PID of PV module.



Through harsh weathering tests of sand, dust, salt mist, ammonia, etc, to get stronger weather resistance of outdoor environment.



Lower oxygen and carbon content result in lower LID.



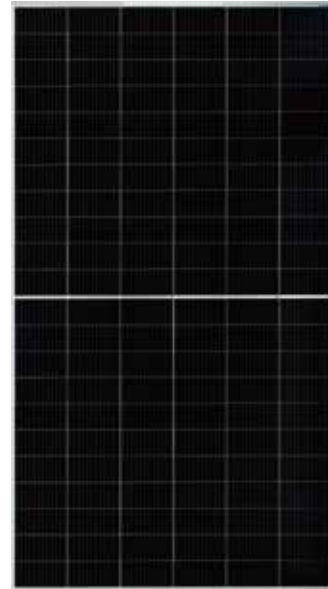
By series and parallel design, to reduce the series RS and achieve higher power output and lower BOS cost.



Lower temperature coefficient and lower operating temperature can ensure higher power generation.



Double sides power output to reach higher comprehensive efficiency and get more profit.



First-Class Warranty



12 years product workmanship warranty



1st year power degradation no more than **2%**.
Subsequent annual power degradation no more than **0.45%**



30 years linear power output warranty

Electrical Performance Parameters | STC

Nominal Max. Power	Pmax (W)	640	645	650	655	660
Maximum Power Voltage	Vmp(V)	37.3	37.5	37.7	37.9	38.1
Maximum Power Current	Imp(A)	17.19	17.23	17.27	17.31	17.35
Open Circuit Voltage	Voc(V)	45.1	45.3	45.5	45.7	45.9
Short Circuit Current	Isc(A)	18.26	18.31	18.35	18.40	18.45
Module Efficiency	(%)	20.6	20.8	20.9	21.1	21.2
Power Tolerance	(W)	0~+5W				

* STC: Irradiance 1000W/m², Cell Temperature 25°C, Air Mass AM1.5.
* Power measurement tolerance ± 3%.

Electrical Performance Parameters | NMOT

Nominal Max. Power	Pmax (W)	484	488	492	495	499
Maximum Power Voltage	Vmp(V)	34.7	34.9	35.1	35.2	35.4
Maximum Power Current	Imp(A)	13.94	13.98	14.01	14.05	14.10
Open Circuit Voltage	Voc(V)	42.5	42.7	42.9	43	43.2
Short Circuit Current	Isc(A)	14.71	14.75	14.79	14.83	14.87

* NMOT: Irradiance 800W/m², Cell Temperature 20°C, Wind Speed 1m/s.
* Power measurement tolerance ± 3%.

Structure Performance

Solar Cell Type	210mm Mono-crystalline (Half Cell)
Solar Cell Arrangement	132pcs(6×22)
Module Dimension	2384×1303×35mm
Weight	38.7kg
Front Glass	2.0mm, highly transparent tempered glass with anti-reflective coating
Frame	Anodized Aluminum Alloy
Junction Box	IP68 rated
Cable	4mm ² PV cable, 300mm or customized length
Diode Quantity	3pcs
Wind Load / Snow Load	2400pa/5400pa
Connector	MC4 Compatible
Per Pallet	31pcs
Per Container(40'HQ)	558pcs

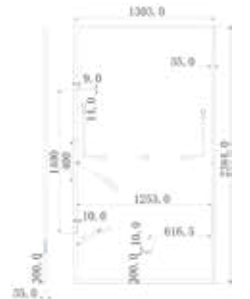
Temperature Characteristics

Nominal Module Operating Temperature	44±2°C
Temperature Coefficient (Isc)	+0.06%
Temperature Coefficient (Voc)	-0.30%
Temperature Coefficient (Pmax)	-0.39%

Maximum Parameters

Working Temperature	-40~+85°C
Maximum System Voltage	1500V DC
Nominal Maximum Fuse Current	30A

Module Dimension



Frame Cross Section

