



# 182 Series

## 445-460W

### MBB Mono Half-cell Module

#### POWER OUTPUT RANGE

**445-460W**



#### MAXIMUM MODULE EFFICIENCY

**21.3%**



#### POWER WARRANTY

**30 years**



## Characteristic



#### Higher Power Output

Multi-busbar technology  
1500V system voltage, reduce the BOS cost



#### Guaranteed Output Power

Module power positive tolerance



#### Half-cell and Lower Power Loss Design

Half-cell design, with lower resistance, improve the module efficiency



#### Best Solution to Harsh Conditions

Pass the mechanical load test, front 5400Pa and back 2400Pa



#### Excellent PID Resistance

Excellent Anti-PID Performance, guarantee less power degradation



#### High Reliability Based On Strict Quantity Control

Over 100 internal tests including ultraviolet irradiation, heat-recycling, damp heat(DH) test, humidity-freeze(HF) test and etc.



## Electrical Data @STC

Peak power-Pmax(Wp)	445	450	455	460
Power tolerance(W)	±3%			
Open circuit voltage - Voc(V)	40.82	40.94	41.06	41.18
Maximum power voltage - Vmpp(V)	34.74	34.86	34.98	35.10
Short circuit current - Im(A)	13.63	13.74	13.85	13.96
Maximum power current - Imp(A)	12.81	12.91	13.01	13.11
Module efficiency $\eta$ (%)	20.6	20.9	21.1	21.3

Standard testing condition(STC): Irradiance 1000W/m<sup>2</sup>, Temperature 25°C, AM 1.5

## Mechanical Data

Cell size	Mono182×182mm
NO.of cells	120 Half Cells (6×20)
Dimension	1903*1134*35mm
Weight	24.20kg
Glass	3.2mm high transmission, Anti-reflection coating toughened glass
Frame	Anodized aluminum alloy
Junction box	Separated Junction box IP68 3 bypass diodes
Connector	AMPHENOLH4/MC4 connector
Cable	4.0mm <sup>2</sup> , 300mm PV CABLE, length can be customized

## Temperature Ratings

Nominal operating cell temperature	45±2°C
Temperature coefficient of Pmax	-0.35%/°C
Temperature coefficients of Voc	-0.27%/°C
Temperature coefficients of Isc	0.048%/°C

## Maximum Ratings

Operating temperature	-40°C to +85°C
Maximum system voltage	1500v DC (IEC/UL)
Maximum series fuse rating	25A
Pass hail test	Diameter 25mm, speed 23m/s

## Warranty

12 Years Workmanship Warranty
30 Years Performance Warranty

## Packing Data

Modules per pallet	31 PCS
Modules per 40HQ container	744 PCS
Modules per 13.5m long flatcar	868 PCS
Modules per 17.5m long flatcar	1116 PCS

## Dimension

