



182 Series

440-460W

All Black N-type Half-cell Module

POWER OUTPUT RANGE

440-460W



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;
High power generation; Low levelized cost of energy



Ultra-low Degradation

N-type modules are more reliable
with less LID/LETID



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)	440	445	450	455	460
Power tolerance(W)	±3%				
Open circuit voltage - Voc(V)	41.6	41.8	42.0	42.2	42.4
Maximum power voltage - Vmpp(V)	35.8	36.0	36.2	36.4	36.6
Short circuit current - Im(A)	13.68	13.75	13.82	13.88	13.95
Maximum power current - Imp(A)	12.29	12.36	12.43	12.50	12.57
Module efficiency η (%)	20.4	20.6	20.9	21.0	21.3

Standard testing condition(STC): Irradiance 1000W/m², 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 ² , 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

