



KEY FEATURES



**9BB Half-cut Cell Technology**

New circuit design, lower internal current, lower  $R_s$  loss  
Ga doped wafer, attenuation <2% (1st year) / 0.45% (Linear)



**Industry Leading High Yield**

Bifacial PERC cell technology,  
5%-25% more yield depends on different conditions



**Excellent Anti-PID Performance**

2 times of industry standard Anti-PID test



## ELECTRICAL CHARACTERISTICS

Testing Condition	STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT
Maximum Power (Pmax/W)	435	323	440	327	445	330	450	334	455	338
Operating Voltage (Vmpp/V)	41.4	38.7	41.6	38.9	41.8	39.1	42.0	39.3	42.2	39.4
Operating Current (Impp/A)	10.51	8.36	10.58	8.41	10.65	8.47	10.72	8.52	10.79	8.57
Open-Circuit Voltage (Voc/V)	49.8	46.6	50.0	46.8	50.2	46.9	50.4	47.1	50.6	47.3
Short-Circuit Current (Isc/A)	11.16	9.00	11.22	9.04	11.29	9.10	11.36	9.16	11.43	9.21
Module Efficiency (%)	20.00		20.20		20.50		20.70		20.90	

STC: Irradiance 1000W/m<sup>2</sup>, Spectra at AM1.5, Module Temperature 25 °C. Power output tolerance: 0~+5W, Test uncertainty for Pmax: ±3%  
 NMOT: Irradiance 800W/m<sup>2</sup>, Spectra at AM1.5, Ambient Temperature 20 °C, Wind speed 1m/s

## REAR SIDE POWER GAIN(REFERENCE TO 440W FRONT)

Pmax gain	5%	10%	15%	20%	25%
Pmax/W	462	484	506	528	550
Vmpp/V	41.6	41.6	41.6	41.6	41.6
Impp/A	11.11	11.64	12.17	12.70	13.23
Voc/V	50.0	50.0	50.0	50.2	50.2
Isc/A	11.78	12.34	12.90	13.46	14.03

## MECHANICAL CHARACTERISTICS

Cell Type	Monocrystalline Silicon (9Busbar)
No. of Cells	144pcs in series (6*24)
Module Dimensions	2094*1038*30mm (82.44*40.87*1.18inches)
Weight	28.0kg (61.73lbs)
Front Glass	2.0mm AR Coating Semi-tempered Glass
Back Glass	2.0mm Glazed Semi-tempered Glass
Frame	Anodized Aluminium Alloy
Junction Box	IP68, 3 Bypass Diodes
Output Cables	4mm <sup>2</sup> (IEC), 12AWG(UL) 300mm in Length or Customized Length
Connectors	T01/LJQ-3-CSY/MC4/MC4-EV02

## APPLICATION CONDITIONS

Maximun System Voltage	1500V/DC
Operating Temperature	-40°C~+85°C
Maximun Series Fuse	25A
Safety Protection Class	Class II
Mechanical Load	Front side 5400Pa, Back side 2400Pa
Refer. Bifaciality Factor	70%±5%

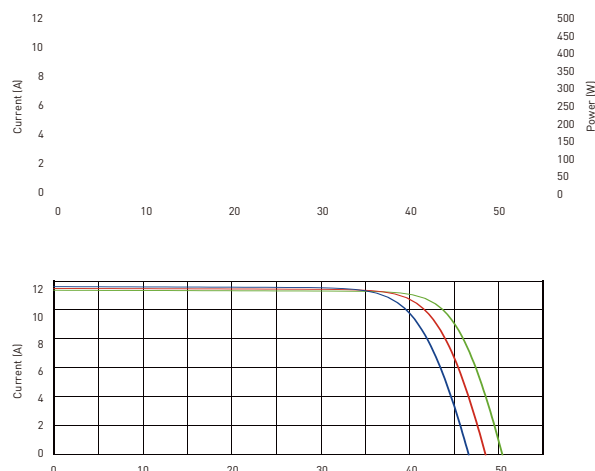
## TEMPERATURE CHARACTERISTICS

Temperature Coefficient of Pmax	-0.36%/°C
Temperature Coefficient of Voc	-0.26%/°C
Temperature Coefficient of Isc	+0.043%/°C
Nominal Module Operating Temperature(NMOT)	43±2°C

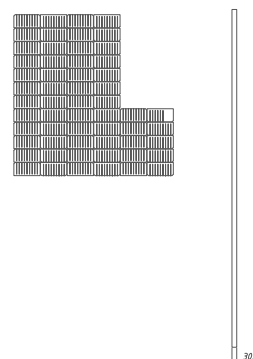
## PACKING CONFIGURATION

Pieces Per Pallet	36	36(USA)
Pieces Per Container(40'HQ)	792	648

## I-V CURVE



## TECHNICAL DRAWINGS



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