



# Half Cell Mono PERC

SS-WH144P 390W ~ 410W



**High Efficiency**

Module efficiency leading in industry, up to 20.4%



**High Reliability**

Passed 3\*IEC standard test



**Low Hot-spot Risk**

1/2 current, reducing the hot spot temperature



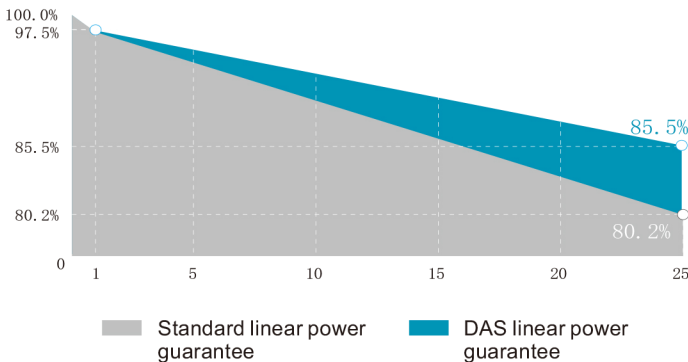
**Low NMOT**

As low as 43°C , improving the power generation efficiency



**Half Cell, MBB Technology**

Series-then-parallel cell connection design, more reliable soldering technology



## Product And Quality Certifications

- IEC 61215, IEC 61730
- ISO 9001: 2015 Quality Management System
- IEC 62716, IEC 61701: Ammonia, Salt mist corrosion test
- IEC TS 62804-1, IEC 60068-2-68: PID test, Dust and Sand test
- IEC TS 62941: 2016 Terrestrial photovoltaic (PV) modules. Guideline for increased confidence in PV module design qualification and type approval

**-2.50%**  
First year power degradation

**-0.50%**  
Annual degradation

**12 YEAR**  
Materials and workmanship warranty

**25 YEAR**  
Linear power warranty



# SAKURA SOLAR

JSF CORPORATION (PVT) LTD

## Electrical Parameters (STC\*)

Module Type	WH144P-410	WH144P-405	WH144P-400	WH144P-395	WH144P-390
Nominal Max. Power(Pmax/W)	410	405	400	395	390
Open Circuit Voltage(Voc/V)	49.46	49.24	49.19	48.99	48.74
Short Circuit Current(Isc/A)	10.52	10.45	10.34	10.26	10.19
Operating Voltage(Vmp/V)	40.95	40.74	40.65	40.47	40.24
Operating Current(Imp/A)	10.01	9.94	9.84	9.76	9.69
Module Efficiency(%)	20.4	20.1	19.9	19.6	19.4

STC\*(Standard Test Condition): Irradiance 1000W/m<sup>2</sup>, Cell Temperature 25°C, AM1.5

## Electrical Parameters (NMOT\*)

Module Type	WH144P-410	WH144P-405	WH144P-400	WH144P-395	WH144P-390
Nominal Max. Power(Pmax/W)	301	298	294	290	287
Open Circuit Voltage(Voc/V)	45.75	45.55	45.50	45.32	45.08
Short Circuit Current(Isc/A)	8.48	8.42	8.33	8.27	8.21
Operating Voltage(Vmp/V)	37.58	37.48	37.36	37.13	37.03
Operating Current(Imp/A)	8.01	7.95	7.87	7.81	7.75

NMOT\* (Nominal Module Operating Temperature): Irradiance 800W/m<sup>2</sup>, Ambient Temperature 20°C, AM1.5, Wind Speed 1m/s

## Mechanical Parameters

Cell size	Mono PERC 158.75mm*79.375mm
Module size	2008×1002×40mm ( L x W x H)
Glass Thickness	3.2mm
Module Weight	22.2Kg
Output Cable	4mm <sup>2</sup> , cable length 300mm (can be customized)
Connector	MC4 compatible
J-Box	IP68, 3 bypass diodes
Frame	Anodized aluminium alloy

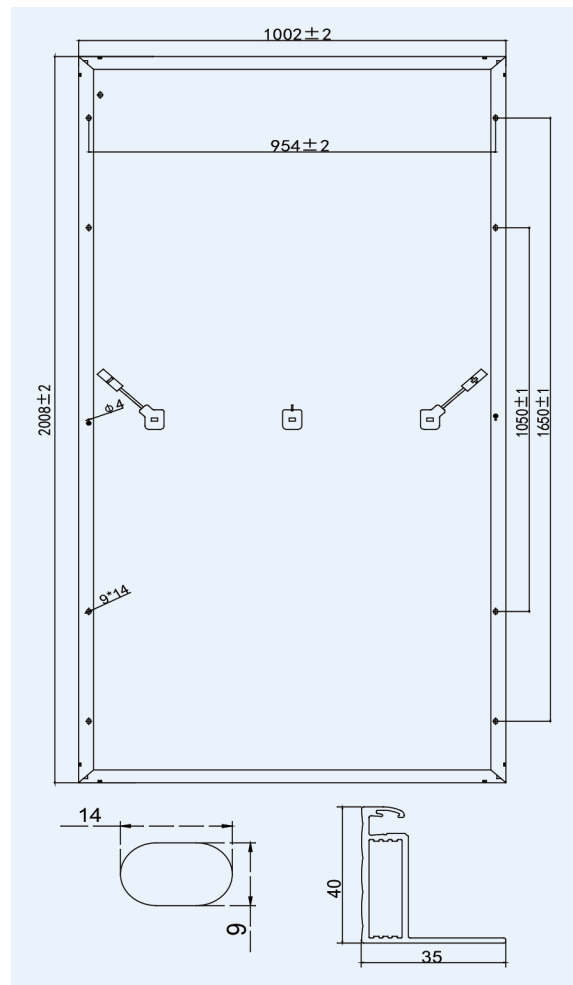
## Temperature Coefficients

Short Circuit Current(Isc)	+0.048%/°C
Open Circuit Voltage(Voc)	-0.31%/°C
Nominal Max. Power(Pmax)	-0.38%/°C
NMOT	43±2°C

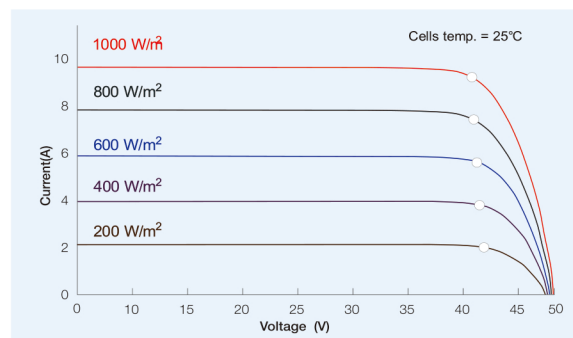
## Operating Parameters

Max. System Voltage	DC1000V/DC1500V
Power Tolerance	0 ~ +5 W
Operating Temperature	-40°C ~ +85°C
Max. Fuse Rated Current	20A
Front Static Load	Snow load 5400Pa, Wind load 2400Pa
Application Classification	Class A
Packing Specification	27 pcs/Pallet, 270 pcs/ 20'HQ; 594 pcs/ 40'HQ;

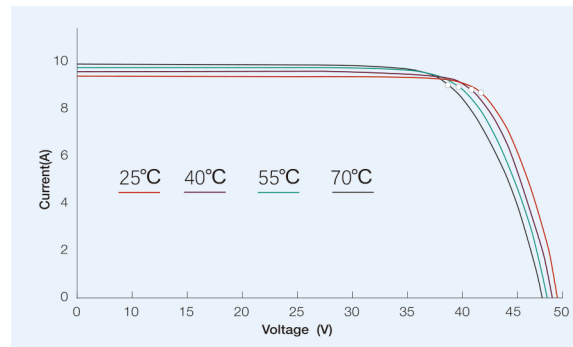
## Dimension



## I-V curve



## I-V curve



# SAKURA SOLAR

JSF CORPORATION (PVT) LTD