

SUNSYSTEM®

7-144/550W HCM

MONOCRYSTALLINE MODULE

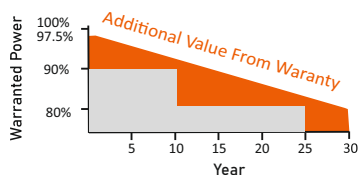
ADVANCED PERFORMANCE & PROVEN ADVANTAGES

- ✓ High module conversion efficiency up to 21.28% by using innovative Half-cell design and Multi-busbar(MBB) cell technology.
- ✓ Low temperature coefficient and excellent performance under high temperature and low light conditions.
- ✓ Robust aluminum frame ensures the modules to withstand wind loads up to 2400Pa and snow loads up to 5400Pa.
- ✓ High reliability against extreme environmental conditions (passing salt mist, ammonia and hail tests).
- ✓ Potential induced degradation (PID) resistance.



CERTIFICATIONS

- ✓ IEC 61215, IEC 61730, CE, CQC
- ✓ ISO 9001:2015: Quality management system
- ✓ ISO 14001:2015: Environmental management system
- ✓ ISO 45001:2018: Occupational health and safety management system



■ Linear performance warranty from Sunsystem
■ Standard performance warranty

SPECIAL WARRANTY

- ✓ 20 years product warranty
- ✓ 30 years linear power output warranty

ELECTRICAL CHARACTERISTICS AT STC

Maximum Power (Pmax)	525W	530W	535W	540W	545W	550W
Open Circuit Voltage (VOC)	49.0V	49.2V	49.4V	49.6V	49.8V	50.0V
Short Circuit Current (ISC)	13.74A	13.78A	13.82A	13.86A	13.90A	13.94A
Voltage at Maximum Power (Vmp)	40.8V	41.0V	41.2V	41.4V	41.6V	41.8V
Current at Maximum Power (Imp)	12.88A	12.93A	12.99A	13.05A	13.11A	13.16A
Module Efficiency (%)	20.31	20.51	20.70	20.89	21.09	21.28
Operating Temperature	-40°C to +85°C					
Maximum System Voltage	1000V DC/1500V DC					
Fire Resistance Rating	Type 1(in accordance with UL1703)/Class C(IEC61730)					
Maximum Series Fuse Rating	25A					

STC: Irradiance 1000W/m2, Cell temperature 25°C, AM1.5; Tolerance of Pmax: +3%; Measurement Tolerance: +3%

ELECTRICAL CHARACTERISTICS AT NOCT

Maximum Power (Pmax)	391W	395W	399W	403W	407W	411W
Open Circuit Voltage (Voc)	45.1V	45.3V	45.5V	45.7V	45.9V	46.1V
Short Circuit Current (Isc)	11.13A	11.16A	11.19A	11.22A	11.25A	11.28A
Voltage at Maximum Power (Vmp)	37.1V	37.3V	37.5V	37.7V	37.9V	38.1V
Current at Maximum Power (Imp)	10.54A	10.59A	10.64A	10.69A	10.74A	10.79A

NOCT: Irradiance 800W/m2, Ambient temperature 20°C, Wind Speed 1 m/s

MECHANICAL CHARACTERISTICS

Cell type	Monocrystalline PERC 182*91mm
Number of cells	144 (6x24)
Module dimensions	2279x1134x35mm (89.72x44.65x1.38inches)
Weight	29kg (63.9lbs)
Front cover	3.2mm (0.13inches) tempered glass with AR coating
Frame	Anodized aluminum alloy
Junction box	IP68, 3 diodes
Cable	4mm2 (0.006inches ²), Portrait: 300mm (11.8inches); Landscape: 1300mm (51.18inches)
Connector	Mc4 or MC4 compatible

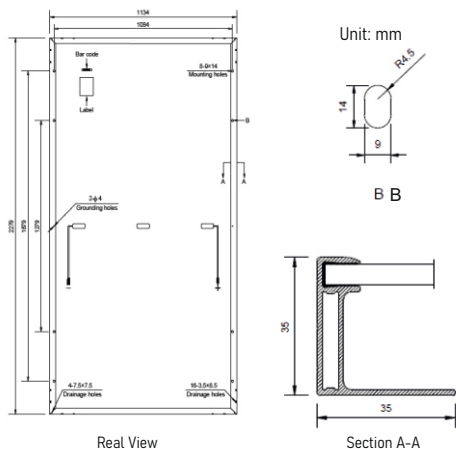
TEMPERATURE CHARACTERISTICS

Nominal Operating Cell Temperature (NOCT)	43°C±2°C
Temperature Coefficients of Pmax	-0.36%/°C
Temperature Coefficients of Voc	-0.28%/°C
Temperature Coefficients of Isc	0.05%/°C

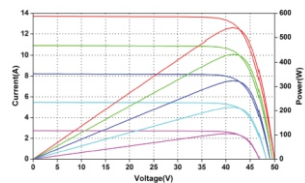
PACKAGING

Standard packaging	31pcs/pallet
Module quantity per 20' container	155pcs
Module quantity per 40' container	620pcs (HQ)

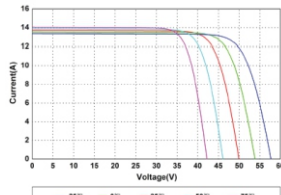
ENGINEERING DRAWINGS



IV CURVES



Current-Voltage and Power-Voltage Curves at Different Irradiances



Current-Voltage Curves at Different Temperatures