SUNTECH

# Ultra V Pro mini

## 108 HALF-CELL N-type MONOFACIAL MODULE

# 410-430W

**STP*XXX*S - C54/Umhm**

## Features

**High module conversion efficiency**
Module efficiency up to 22.0% achieved through advanced cell technology and manufacturing process

**Suntech current sorting process**
Up to 2 % power loss caused by current mismatch could be diminished by current sorting technique to maximize system power output

**Excellent weak light performance**
More power output in weak light condition, such as cloudy, morning and sunset

**Lower operating temperature**
Lower operating temperature and temperature coefficient increases the power output

**Extended wind and snow load tests**
Module certified to withstand extreme wind (3800 Pascal) and snow loads (6000 Pascal) *

**Withstanding harsh environment**
Reliable quality leads to a better sustainability even in harsh environment like desert, farm and coastline

*Certifications and standards:*
*IEC 61215, IEC 61730, conformity to CE*

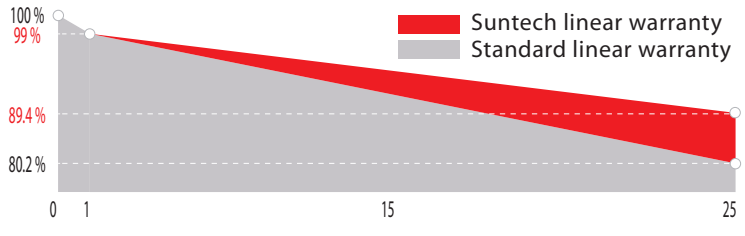
## Trust Suntech to Deliver Reliable Performance Over Time

- World-class manufacturer of crystalline silicon photovoltaic modules
- Rigorous quality control meeting the highest international standards: ISO 9001, ISO 14001 and ISO17025
- Regular independently checked production process from international accredited institute/company
- Tested for harsh environments (IEC 61701, IEC 62716, DIN EN 60068-2-68) ***
- Long-term reliability tests
- 2 x 100% EL inspection ensuring defect-free modules

## Special Cell Design

Half-cell and MBB technology design with ultra-thin dielectric film to isolate metal and semiconductor can achieve carrier tunneling effect to ensure carrier conduction and increase power output.

## Industry-leading Warranty based on nominal power




| -1.0% | -0.40% | 15 YEARS | 25 YEARS **** |
|---|---|---|---|
| First year power degradation | Annual degradation | Product warranty | linear warranty |

## IP68 Rated Junction Box


The Suntech IP68 rated junction box ensures an outstanding waterproof level, supports installations in all orientations and reduces stress on the cables.

* Please refer to Suntech Standard Module Installation Manual for details.
** WEEE only for EU market. *** Please refer to Suntech Product Near-coast Installation Guide for details.
**** Please refer to Suntech Limited Warranty for details.

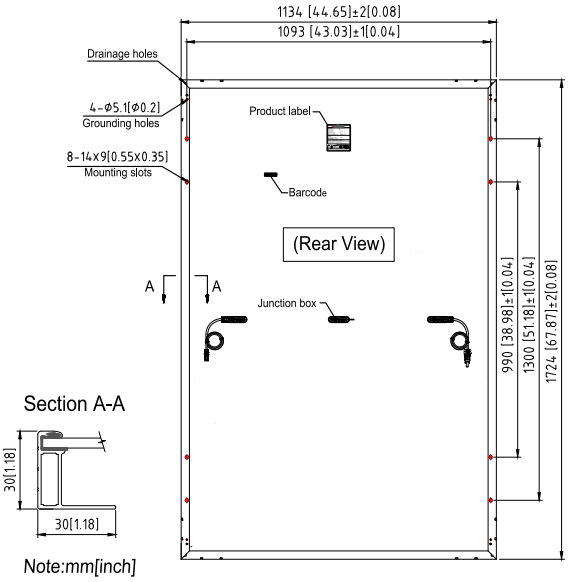
## Electrical Characteristics

| STC | STPXXXS-C54/Umhm | | | | |
|---|---|---|---|---|---|
| Maximum Power at STC (Pmax) | 430W | 425W | 420W | 415W | 410W |
| Optimum Operating Voltage (Vmp) | 32.43V | 32.25V | 32.03V | 31.81V | 31.59V |
| Optimum Operating Current (Imp) | 13.26A | 13.18A | 13.11A | 13.05A | 12.98A |
| Open Circuit Voltage (Voc) | 38.26V | 38.08V | 37.86V | 37.67V | 37.45V |
| Short Circuit Current (Isc) | 14.26A | 14.19A | 14.12A | 14.05A | 13.98A |
| Module Efficiency | 22.0% | 21.7% | 21.5% | 21.2% | 21.0% |
| Operating Module Temperature | -40 °C to +85 °C | | | | |
| Maximum System Voltage | 1500 V DC (IEC) | | | | |
| Maximum Series Fuse Rating | 25 A | | | | |
| Power Tolerance | 0/+5 W | | | | |

STC: Irradiance 1000 W/m², module temperature 25 °C, AM=1.5;
Tolerance of Pmax is within +/- 3%;

| NMOT | STPXXXS-C54/Umhm | | | | |
|---|---|---|---|---|---|
| Maximum Power at NMOT (Pmax) | 328.W | 324.3W | 320.5W | 316.7W | 312.8W |
| Optimum Operating Voltage (Vmp) | 30.0V | 29.8V | 29.6V | 29.4V | 29.2V |
| Optimum Operating Current (Imp) | 10.94A | 10.89A | 10.83A | 10.77A | 10.71A |
| Open Circuit Voltage (Voc) | 36.2V | 36.0V | 35.8V | 35.6V | 35.4V |
| Short Circuit Current (Isc) | 11.50A | 11.45A | 11.39A | 11.34A | 11.28A |

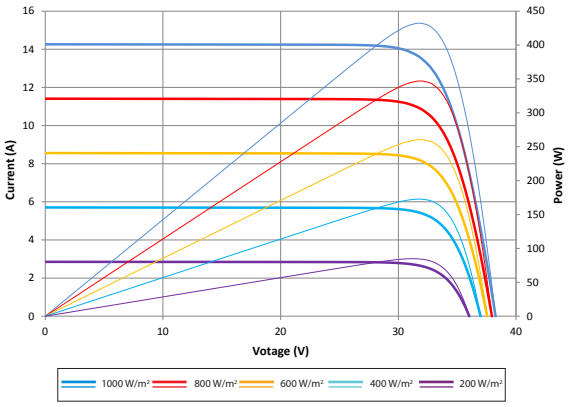
NMOT: Irradiance 800 W/m², ambient temperature 20 °C, AM=1.5, wind speed 1 m/s.




## Temperature Characteristics

| | |
|---|---|
| Nominal Module Operating Temperature (**NMOT**) | 42 ± 2 °C |
| Temperature Coefficient of Pmax | -0.320%/°C |
| Temperature Coefficient of Voc | -0.260%/°C |
| Temperature Coefficient of Isc | 0.046%/°C |

Current-Voltage & Power-Voltage Curve (430S)




## Mechanical Characteristics

| | |
|---|---|
| Solar Cell | N-type 182 mm |
| No. of Cells | 108 (6 × 18) |
| Dimensions | 1724 × 1134 × 30 mm (67.9 × 44.6 × 1.2 inches) |
| Weight | 22.1 kgs (48.7 lbs.) |
| Front Glass | 3.2 mm (0.126 inches) fully tempered glass |
| Frame | Anodized aluminium alloy |
| Junction Box | IP68 rated (3 bypass diodes) |
| Output Cables | 4.0 mm², (-) 1400 mm and (+) 1400 mm in length or customized length |
| Connectors | MC4 EVO2, Cable01S, STP-XC4 |

## Dealer information

## Packing Configuration

| Container | 40' HC |
|---|---|
| Pieces per pallet | 36 |
| Pallets per container | 26 |
| Pieces per container | 936 |
| Packaging box dimensions | 1755×1130×1255 mm |
| Packaging box weight | 846 kg |

Information on how to install and operate this product is available in the installation instruction. All values indicated in this data sheet are subject to change without prior announcement. The specifications may vary slightly. All specifications are in accordance with standard EN 50380. Color differences of the modules relative to the figures as well as discolorations of/in the modules which do not impair their proper functioning are possible and do not constitute a deviation from the specification.