## 6 HiMAX

## 660~685W

## 210mm Cells Mono PERC with MBB \& Half-cut Technology

## Quality Guarantee

12-year Warranty for Materials and Processing 25-year Warranty for Extra Linear Power Output


22.06\%

Max Module Eff.
0~+5W
Positive Tolerance

## Complete System and Product Certifications

IEC 61215, IEC 61730, UL 61730
ISO 9001:2008: ISO Quality Management System
ISO 14001: 2004: ISO Environment Management System
OHSAS 18001: 2007 Occupational Health and Safety

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Specifications subject to technical changes and tests. Sunpal Solar reserves the right of interpretation.

Positive power tolerance ( $0 \sim+5 \mathrm{~W}$ ) guaranteed

High module conversion efficiency (up to 22.06\%)
Slower power degradation enabled by Low LID Mono PERC technology: first year <2\%, $0.55 \%$ year $2-25$

Solid PID resistance ensured by solar cell process optimization and careful module BOM selection

Reduced resistive loss with lower operating current

Higher energy yield with lower operating temperature
Reduced hot spot risk with optimized electrical design and lower operating current

Making more power

## 6 HIMAX $660 \sim 685 \mathrm{~W}$

Design (mm)


| Cell Orientation | $132(6 \times 22)$ |
| :--- | :--- |
| Junction Box | IP68, three diodes |
| Output Cable | $4 \mathrm{~mm}^{2}, 300 \mathrm{~mm}$ in length, |
|  | length can be customized |
| Glass | Single glass |
|  | 3.2 mm coated tempered glass |
| Frame | Anodized aluminum alloy frame |
| Weight: | $33.6 \mathrm{~kg} \pm 3 \%$ |
| Dimension | $2384 \times 1303 \times 35 \mathrm{~mm}$ |
| Packaging | 31 pcs per pallet <br>  |


| Operational Temperature | $-40^{\circ} \mathrm{C}+85^{\circ} \mathrm{C}$ |
| :--- | :--- |
| Power Output Tolerance | $0 \sim+5 \mathrm{~W}$ |
| Voc \& Isc Tolerance | $\pm 3 \%$ |
| Max. System Voltage | DC 1500 V (IEC/UL) |
| Max. Series Fuse Ratin | 30 A |
| NOCT | $45 \pm 2^{\circ} \mathrm{C}$ |
| Safety Class | II |
| Fire Rating | UL type 1 or 2 |
| Max. Static Load(Front) | 5400 Pa |
| Max. Static Load(Back) | 2400 Pa |


| Electrical Characteristics |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Model Number | SP660M-66H |  | SP665M-66H |  | SP670M-66H |  | SP675M-66H |  | SP680M-66H |  | SP685M-66H |  |
| Testing Condition | STC | NOCT | STC | NOCT | STC | NOCT | STC | NOCT | STC | NOCT | STC | NOCT |
| Maximum Power (Pmax/W) | 660 | 500 | 665 | 504 | 670 | 508 | 675 | 512 | 680 | 516 | 685 | 520 |
| Open Circuit Voltage (Voc/V) | 45.7 | 43 | 45.9 | 43.2 | 46.1 | 43.4 | 46.3 | 43.6 | 46.5 | 43.8 | 46.7 | 44 |
| Short Circuit Current (Isc/A) | 18.53 | 14.93 | 18.58 | 14.97 | 18.63 | 15.01 | 18.68 | 15.05 | 18.73 | 15.09 | 18.78 | 15.13 |
| Voltage at Maximum Power (Vmp/V) | 37.8 | 35.3 | 38 | 35.5 | 38.2 | 35.7 | 38.4 | 35.9 | 38.6 | 36.1 | 38.8 | 36.3 |
| Current at Maximum Power (Imp/A) | 17.47 | 14.17 | 17.5 | 14.2 | 17.54 | 14.23 | 17.58 | 14.27 | 17.62 | 14.3 | 17.66 | 14.33 |
| Module Efficiency(\%) | 21.25 |  | 21.41 |  | 21.57 |  | 21.73 |  | 21.9 |  | 22.06 |  |
| Temperature Coefficient of Isc | $+0.04 \% /{ }^{\circ} \mathrm{C}$ |  |  |  |  |  |  |  |  |  |  |  |
| Temperature Coefficient of Voc | $-0.25 \% /{ }^{\circ} \mathrm{C}$ |  |  |  |  |  |  |  |  |  |  |  |
| Temperature Coefficient of Pmax | $-0.34 \% /{ }^{\circ} \mathrm{C}$ |  |  |  |  |  |  |  |  |  |  |  |

* STC (Standard Testing Conditions): Irradiance $1000 \mathrm{~W} / \mathrm{m}^{2}$, Cell Temperature $25^{\circ} \mathrm{C}$, Spectra at AM1. 5
* NOCT (Nominal Operating Cell Temperature): Irradiance $800 \mathrm{~W} / \mathrm{m}^{2}$, Ambient Temperature $20^{\circ} \mathrm{C}$, Spectra at AM1.5, Wind at $1 \mathrm{~m} / \mathrm{S}$
*Test uncertainty for Pmax: $\pm 3 \%$


## I-V Curve

## Current-Voltage Curve(SP660M-66H)



Current-Voltage Curve(SP660M-66H)


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    *CAUTION: READ SAFETY AND INSTALLATION INSTRUCTIONS BEFORE USING THE PRODUCT.
    *Specfications included in this datasheet are subject to change without notice.

