## Shinson <br> Technology Beyond Limits

## S400M60SBB S405M60SBB S410M60SBB S415M60SBB

Shinson is a leading professional supplier in the renewable energy industry, specializing in the production and distribution of high-quality PV modules, completed PV kits, and energy storage solutions. With a commitment to sustainable energy solutions, we strive to provide innovative and reliable products to meet the growing global demand for clean and efficient power generation.

With a focus on quality, innovation, and customer satisfaction, we strive to empower individuals, businesses, and communities with reliable and sustainable energy solutions. By harnessing the power of the sun and embracing renewable energy, we are driving the transition towards a greener and more sustainable future.

S-Nano ${ }^{\text {TM }}$ series of PV modules are designed for residential and small commercial installations with compact sizes and aesthetic appearances.


## Roofing Aesthetics

S-Nano ${ }^{\text {TM }}$ series has been designed with aesthetic in mind, the ultra black color looks well integrated to roofing, creats on modern and improved aesthetic.


Advanced Shingled cell technology with better performance
Built with latest shingled technology with high efficiency of PREC solar cells, better performance under the shadow, lower hotpot risk.


Longer life span with 25 years warranty
Built with high reliable raw-materials, shinson extended the warranty period up to 25 years for both performance and workmanship which is on top level of the industry for backsheet modules.


## Lower power degradation with more generation

Ensured PID resistance through cell process and module material control to
help harvest more, guaranteed only $0.5 \%$ annual power degradation.

## Electrical Data (STC)

| Part Number |  | S400M60SBB | S405M60SBB | S410M60SBB | S415M60SBB |
| :--- | :--- | :---: | :---: | :---: | :---: |
| Peak Power Watts-PMAx(Wp)* | 400 | 405 | 410 | 415 |  |
| Power Output Tolerance |  | $0 /+5 \mathrm{~W}$ |  |  |  |
| Open Circuit Voltage-Voc(V) | 46.40 | 46.50 | 46.60 | 46.70 |  |
| Short Circuit Current-Isc(A) | 10.97 | 11.02 | 11.07 | 11.12 |  |
| Maximum Power Voltage-VmPP(V) | 38.60 | 38.70 | 38.80 | 38.90 |  |
| Maximum Power Current-ImPP(A) | 10.36 | 10.47 | 10.57 | 10.67 |  |
| Panel Efficiency(\%) | 20.40 | 20.70 | 20.90 | 21.20 |  |

STC :Irradiance $1000 \mathrm{w} / \mathrm{m}^{2}$, Cell Temperature $25^{\circ} \mathrm{C}$ *Mearsure tolerance: $\pm 3 \%$

## Electrical Data (NMOT)

| MaximumPower-Pmax(Wp)* | 301 | 305 | 309 | 312 |
| :--- | :---: | :---: | :---: | :---: |
| Open Circuit Voltage-Voc(V) | 44.20 | 44.30 | 44.40 | 44.50 |
| Short Circuit Current-Isc(A) | 8.85 | 8.89 | 8.93 | 8.97 |
| Maximum Power Voltage-VmpP(V) | 36.80 | 36.90 | 37.00 | 37.10 |
| Maximum Power Current-IMPP(A) | 8.18 | 8.27 | 8.35 | 8.43 |

NMOT:Irradiance at $800 \mathrm{~W} / \mathrm{m}^{2}$,Ambient Temperature $20^{\circ} \mathrm{C}$, Wind Speed $1 \mathrm{~m} / \mathrm{s}$

## Mechanical Data

| Panel Dimension(H/W/0) | $1735 \times 1120 \times 30 \mathrm{~mm}$ |
| :---: | :---: |
| Weight | 21.4 kg |
| Glass | 3.2 mm toughened glass |
| Frame | Anodic alumina profile |
| Cells | Monocrystalline silicon cell |
| Cell Orienta ${ }^{\text {on }}$ - | 340(34*10) |
| Junc®on Box | IP68, 2 diodes |
| Cable | 1200 mm long, $4 \mathrm{~mm}^{2}$ cross section, customizable |

## Temperature Ratings

| Nominal Operating Cell Temp.(NOCT) | $42.30^{\circ} \mathrm{C}\left( \pm 2^{\circ} \mathrm{C}\right)$ |
| :--- | :--- | :--- |
| Open circuit voltage temperature coefficient | $-0.27 \% /{ }^{\circ} \mathrm{C}$ |
| Short circuit voltage temperature coefficient | $+0.04 \% /{ }^{\circ} \mathrm{C}$ |
| Maximum power temperature coefficient | $-0.34 \% /{ }^{\circ} \mathrm{C}$ |

* Do not connect Fuse in Combiner Box with two or more strings in parallel connection

Packaging Configuration

| Modules per box | $\frac{36 \text { pieces }}{\text { Modules per 40'container }}$ |
| :--- | :--- |

Dimensions of PV Module(mm)




Maximum Ratings

| Operational Temperature |  | $-40 \sim \pm 85^{\circ} \mathrm{C}$ |
| :--- | :--- | :--- |
| Front/Rear Side Load | $\frac{5400 / 2400 \mathrm{pa}}{}$Max Series Fuse Rating 20 A <br> Max System Voltage 1500 V (IEC) <br> Fire Rating Class 1(UNI9177) |  |

## Warranty

| Product Workmanship Warranty | 25 years <br> Output Power Warranty |
| :--- | :--- |

