

# SKYMAX SERIES

RM - 610-650W - 182M/156TB

N-TOPCon

Bifacial Monocrystalline Module

MANUFACTURED BY RONMA SOLAR.

**2465×1134×35/30**

Dimensions (mm)

**156 CELL**

Dimensions (mm)

**1500V DC**

Max. system voltage

**182×91**

Cell size (mm)

**610-650Wp**

Power output

**23.25%**

Max. efficiency

## Light Redirecting Film

Light Redirecting Film technology ensure the bifaciality and reliability of the module, effectively increasing the power performance.

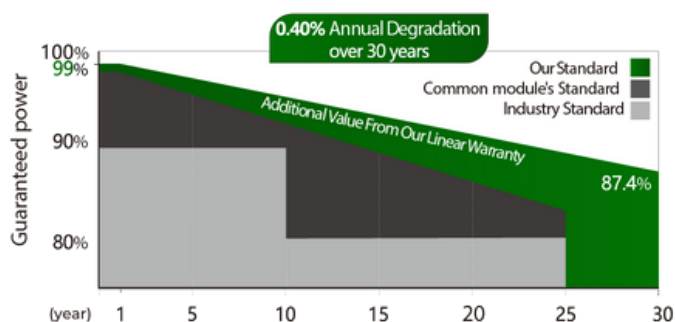
## Non-Destructive (NDC) Cutting Tech

The cutting surface is smooth, avoiding the loss of the cells' mechanical structure and ensuring sufficient current.

## Junction Box Laser Welding Tech

The laser's high energy density and precise positioning control allow it to accurately manage the junction box's welding position and timing, ensuring high-quality welding and reliability, thereby enhancing module safety.

## Linear Performance Warranty



15-year product warranty / 30-year linear power warranty



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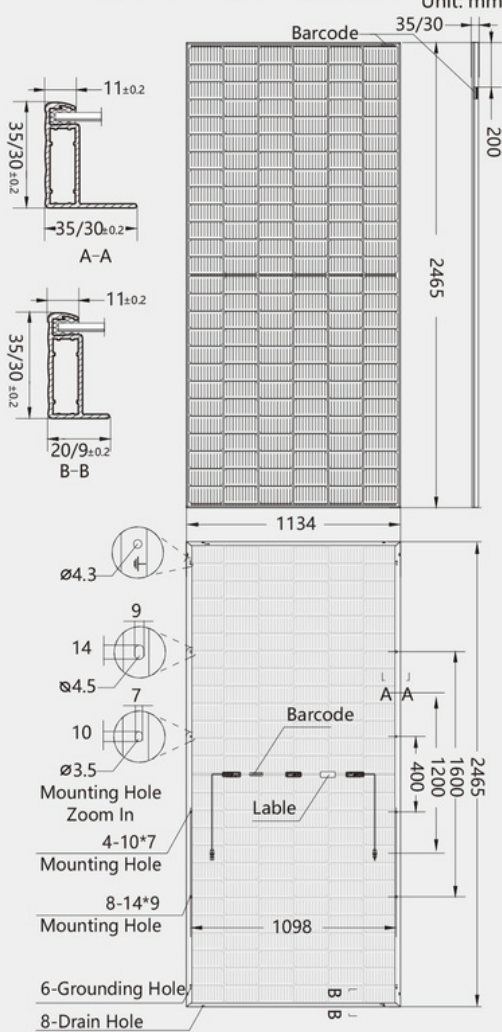
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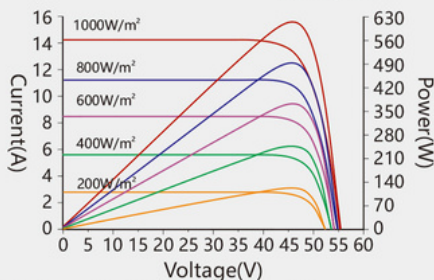
[comercial@polestarenergy.es](mailto:comercial@polestarenergy.es)

## Dimensions of PV Module

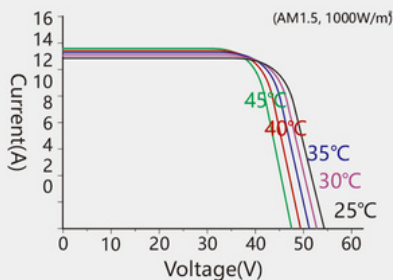
Unit: mm



**RM-650W-182M/156TB**  
I-V characteristics at different irradiances  
Cells temp.=25°C



**I-V characteristics at different temperatures**



## ELECTRICAL CHARACTERISTICS (STC\*)

| Rated Power in Watts-Pmax (Wp) | 610       | 615   | 620   | 625   | 630   | 635   | 640   | 645   | 650   |
|--------------------------------|-----------|-------|-------|-------|-------|-------|-------|-------|-------|
| Open Circuit Voltage-Voc (V)   | 56.81     | 56.98 | 57.15 | 57.32 | 57.49 | 57.67 | 57.84 | 58.01 | 58.19 |
| Short Circuit Current-Isc (A)  | 13.58     | 13.65 | 13.72 | 13.78 | 13.85 | 13.92 | 13.99 | 14.06 | 14.13 |
| Max. Power Voltage-Vmpp (V)    | 47.50     | 47.64 | 47.79 | 47.93 | 48.07 | 48.22 | 48.36 | 48.51 | 48.65 |
| Max. Power Current-Impp (A)    | 12.85     | 12.91 | 12.98 | 13.04 | 13.11 | 13.17 | 13.24 | 13.31 | 13.37 |
| Module Efficiency (%)          | 21.82     | 22.00 | 22.18 | 22.36 | 22.54 | 22.72 | 22.89 | 23.07 | 23.25 |
| Maximum system voltage         | 1500V DC  |       |       |       |       |       |       |       |       |
| Fuse Rating(A)                 | 30        |       |       |       |       |       |       |       |       |
| Temperature coefficient Pmax   | -0.30%/°C |       |       |       |       |       |       |       |       |
| Temperature coefficient Isc    | 0.046%/°C |       |       |       |       |       |       |       |       |
| Temperature coefficient Voc    | -0.25%/°C |       |       |       |       |       |       |       |       |
| Refer. Bifacial Factor         | 80±5%     |       |       |       |       |       |       |       |       |

\*STC: Irradiance 1000W/m², module temperature 25°C, AM=1.5

## WORKING CHARACTERISTICS (NOCT\*)

| Rated Power in Watts-Pmax (Wp) | 455        | 459   | 462   | 466   | 470   | 474   | 478   |
|--------------------------------|------------|-------|-------|-------|-------|-------|-------|
| Open Circuit Voltage-Voc (V)   | 52.41      | 52.54 | 52.66 | 52.79 | 52.93 | 53.15 | 53.28 |
| Short Circuit Current-Isc (A)  | 11.26      | 11.33 | 11.39 | 11.46 | 11.52 | 11.58 | 11.64 |
| Max. Power Voltage-Vmpp (V)    | 42.23      | 42.35 | 42.46 | 42.57 | 42.68 | 42.79 | 42.90 |
| Max. Power Current-Impp (A)    | 10.77      | 10.83 | 10.89 | 10.95 | 11.01 | 11.07 | 11.13 |
| Power tolerance                | 0~+3%      |       |       |       |       |       |       |
| NOCT                           | 45°C±2°C   |       |       |       |       |       |       |
| Operating Temperature          | -40°C~85°C |       |       |       |       |       |       |

\*NOCT: Irradiance 800W/m², ambient temperature 20°C, wind speed 1m/s

## Electrical characteristics with different rear side power gain

|     | Pmax(Wp) | Voc/V | Isc/A | Vmpp/V | Impp/A |
|-----|----------|-------|-------|--------|--------|
| 5%  | 683      | 58.19 | 14.84 | 48.65  | 14.04  |
| 10% | 715      | 58.19 | 14.84 | 48.65  | 14.71  |

The additional gain from the rear side compared to the power of the front side at the standard test condition. It depends on mounting (structure, height, tilt angle, etc.) and albedo of the ground.

## MECHANICAL CHARACTERISTICS

| Number of cells         | 156pcs                   | Type of frame       | Anodized Aluminum Alloy           |
|-------------------------|--------------------------|---------------------|-----------------------------------|
| Size of cell (mm)       | 182×91                   | Size of module (mm) | 2465×1134×35/30                   |
| Type of cell            | N-TOPCon Mono            | Weight (kg)         | 34                                |
| Thickness of glass (mm) | 2.0                      | Cables/connectors   | 4.0mm², MC4 compatible            |
| Junction box            | IP68, 1500V DC, 3 Diodes | Length of Cable     | +300mm/-200mm<br>(connector inc.) |

## PACKAGING CONFIGURATION

| Height of Modules (mm)                    | 35             | 30             |
|-------------------------------------------|----------------|----------------|
| Number of Modules Per Pallet              | 31             | 36             |
| Packaging Box Dimensions (l×w×h) (mm)     | 2485×1120×1260 | 1260×1120×1260 |
| Box Gross Weight (kg)                     | 1080           | 1250           |
| Number of Modules Per 40ft (HQ) Container | 496            | 576            |
| Number of Pallets Per 40ft (HQ) Container | 16             | 16             |

Notes: Read safety and installation instructions before using the product. The data provided in this data sheet are subject to change without notice.

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