



# Certificate of Compliance

**Certificate:** 70216168

**Master Contract:** 274817

**Project:** 70216168

**Date Issued:** 2019-06-17

**Issued To:** **Peimar Inc**  
**309 Fellowship Road, Suite 115**  
**East Gate Center**  
**Mount Laurel, New Jersey, 08054**  
**United States**

**Attention: Marco Casale**



**Issued by:** *Uday Singh*  
Uday Singh

## **PRODUCTS**

CLASS 5311 90 - POWER SUPPLIES - Photovoltaic Modules and Panels (Certified to U.S. Standard)

Photovoltaic Modules

- Model SGXXXM Series, mono-crystalline silicon, 72 Cell, where xxx is the power output from 380 W to 305 W.



Electrical data:

| Model                      | Rated Max @ STC (Watts) | Voltage at Rated @ Max Power (V) | Current at Rated Max Power @ STC (A) | Open Circuit Voltage @ STC (A) | Short Circuit Current @ STC (A) |
|----------------------------|-------------------------|----------------------------------|--------------------------------------|--------------------------------|---------------------------------|
|                            | (Pmax)                  | (Vmp)                            | (Imp)                                | (Voc)                          | (Isc)                           |
| SG380M                     | 380                     | 38.70                            | 9.83                                 | 47.21                          | 10.45                           |
| SG375M                     | 375                     | 38.50                            | 9.75                                 | 47.10                          | 10.31                           |
| SG370M                     | 370                     | 38.40                            | 9.65                                 | 46.90                          | 10.24                           |
| SG365M                     | 365                     | 38.30                            | 9.54                                 | 46.80                          | 10.12                           |
| SG360M                     | 360                     | 38.20                            | 9.47                                 | 46.70                          | 10.09                           |
| SG355M                     | 355                     | 38.10                            | 9.35                                 | 46.60                          | 10.00                           |
| SG350M                     | 350                     | 38.00                            | 9.22                                 | 46.20                          | 9.94                            |
| SG345M                     | 345                     | 37.90                            | 9.12                                 | 45.80                          | 9.90                            |
| SG340M                     | 340                     | 37.86                            | 9.00                                 | 45.31                          | 9.86                            |
| SG335M                     | 335                     | 37.82                            | 8.87                                 | 45.25                          | 9.73                            |
| SG330M                     | 330                     | 37.80                            | 8.74                                 | 45.20                          | 9.58                            |
| SG325M                     | 325                     | 37.60                            | 8.65                                 | 45.00                          | 9.54                            |
| SG320M                     | 320                     | 37.50                            | 8.54                                 | 44.80                          | 9.50                            |
| SG315M                     | 315                     | 37.46                            | 8.43                                 | 44.70                          | 9.40                            |
| SG310M                     | 310                     | 37.40                            | 8.31                                 | 44.60                          | 9.28                            |
| SG305M                     | 305                     | 37.31                            | 8.22                                 | 44.40                          | 9.18                            |
| Max Series Fuse Rating (A) | 20                      |                                  |                                      |                                |                                 |
| Max System Voltage (V)     | 1500                    |                                  |                                      |                                |                                 |
| Fire Performance Rating    | Type 1                  |                                  |                                      |                                |                                 |



- Model SGXXXM Series, mono-crystalline silicon, 60 Cell, where xxx is the power output from 320 W to 255 W.

| Model                      | Rated Max @<br>STC<br>(Watts) | Voltage at<br>Rated @ Max<br>Power<br>(V) | Current at<br>Rated Max<br>Power @<br>STC<br>(A) | Open Circuit<br>Voltage @<br>STC<br>(A) | Short Circuit<br>Current @<br>STC<br>(A) |
|----------------------------|-------------------------------|---|--|---|--|
|                            | (Pmax)                        | (Vmp)                                     | (Imp)  | (Voc)                                   | (Isc)                                    |
| SG320M                     | 320                           | 33.24                                     | 9.63   | 41.20                                   | 9.85                                     |
| SG315M                     | 315                           | 33.00                                     | 9.57   | 40.93                                   | 9.82                                     |
| SG310M                     | 310                           | 32.60                                     | 9.51   | 40.70                                   | 9.80                                     |
| SG305M                     | 305                           | 32.30                                     | 9.45   | 40.32                                   | 9.76                                     |
| SG300M                     | 300                           | 32.00                                     | 9.40   | 40.20                                   | 9.71                                     |
| SG295M                     | 295                           | 31.76                                     | 9.30   | 39.64                                   | 9.68                                     |
| SG290M                     | 290                           | 31.73                                     | 9.17   | 39.50                                   | 9.57                                     |
| SG285M                     | 285                           | 31.71                                     | 8.99   | 39.00                                   | 9.54                                     |
| SG280M                     | 280                           | 31.50                                     | 8.90   | 38.90                                   | 9.40                                     |
| SG275M                     | 275                           | 31.30                                     | 8.80   | 38.70                                   | 9.34                                     |
| SG270M                     | 270                           | 31.00                                     | 8.72   | 38.40                                   | 9.26                                     |
| SG265M                     | 265                           | 30.90                                     | 8.60   | 38.24                                   | 9.21                                     |
| SG260M                     | 260                           | 30.70                                     | 8.50   | 38.20                                   | 9.10                                     |
| SG255M                     | 255                           | 30.60                                     | 8.35   | 37.80                                   | 8.97                                     |
| Max Series Fuse Rating (A) | 20                            |   |  |   |  |
| Max System Voltage (V)     | 1500                          |   |  |   |  |
| Fire Performance Rating    | Type 1                        |   |  |   |  |

Notes:

1. Rated electrical characteristics are within +/-10% of measured values at Standard Test Conditions of 100 mW/cm<sup>2</sup> irradiance, AM 1.5 spectrum, and 25°C.
2. 1500V maximum system voltage can only be used with 1500V rated components (Junction box, connector and cable)

**APPLICABLE REQUIREMENTS**

|                                 |  |
|---------------------------------|--|
| UL 1703-3 <sup>rd</sup> Edition | Flat-Plate Photovoltaic Modules and Panels |
|---------------------------------|--|



## MARKINGS

The manufacturer is required to apply the following markings:

- Products shall be marked with the markings specified by the particular product standard.
- Products certified for Canada shall have all Caution and Warning markings in both English and French.

Additional bilingual markings not covered by the product standard(s) may be required by the Authorities Having Jurisdiction. It is the responsibility of the manufacturer to provide and apply these additional markings, where applicable, in accordance with the requirements of those authorities.

The products listed are eligible to bear the CSA Mark shown with adjacent 'US' indicator for US only (indicating that products have been manufactured to the requirements of U.S. Standards).

The following markings appear on the enclosure by silk-screening, permanent ink stamping, on adhesive labels that appear on the CSA List of Accepted Adhesive Nameplates, or by other permanent method:

1. Submitter's name and/or CSA Master Contract number "274817";
2. Model designation;
3. Complete electrical ratings (as per product description above);
4. Date code or date-traceable serial number;
5. The products listed are eligible to bear the CSA Mark shown with adjacent 'US' indicator for US only (indicating that products have been manufactured to the requirements of U.S. Standards).
6. The output power wiring leads, connector, or other connection means of a module or panel are identified with one of the following marking statements: "+" and "-" or "POS" and "NEG" or "POSITIVE" and "NEGATIVE";
7. The following marking is provided near the points where field connections will be made, and located so that it will be readily visible during installation: "For field connections, use No. 12AWG wires insulated for a minimum of 90°C";
8. The module is marked, at or adjacent to the output terminals, with the statement "Use copper wire only", "CU only", or the equivalent;
9. The panel is marked relative to the maximum electrical rating of an acceptable series fuse (for protection against back feed): 20 A, Maximum System Voltage rating 1500 V dc;
10. Module Fire Performance Rating: Type 1
11. Installation and Assembly Instructions: The panel is supplied with installation instructions describing the methods of electrical and mechanical installation and the electrical ratings of the panel. When the fire rating is dependent upon a specific mounting structure, specific spacings, or specific means of attachment to the roof or structure, details of the specific parameter or parameters are included in the instructions.
  - (a) The electrical installation instructions include a detailed description of the wiring method to be used in accordance with the National Electrical Code. This description includes:
    - (i) The size, type, and temperature rating of the conductors to be used;
    - (ii) The type of overcurrent protection to be used;
    - (iii) The minimum and maximum cable diameters when the wiring method is cable.
  - (b) The mechanical installation instructions for roof mounting include:
    - (i) A statement indicating the minimum mechanical means to be used for securement of the module or panel to the roof;
    - (ii) A statement that the assembly is to be mounted over a fire-resistant roof covering rated for the application, and



- (c) The electrical ratings include following statement or the equivalent: "The electrical characteristics are within  $\pm 10$  percent of the indicated values of ISC, VOC, and Pmax under standard test conditions (irradiance of 100 mW/cm<sup>2</sup>, AM 1.5 spectrum, and a cell temperature of 25°C (77°F))."

Exception: The tolerance may be either smaller than  $\pm 10$  percent or omitted, provided the values measured during the production line tests are:

- (i) Within a tolerance indicated in the instructions when a smaller tolerance is indicated, or
  - (ii) the same as the values indicated in the instructions when the tolerance is omitted.
- (d) The installation instructions include a statement advising that artificially concentrated sunlight shall not be directed on the module or panel.
- (e) "Under normal conditions, a photovoltaic module is likely to experience conditions that produce more current and/or voltage than reported at standard test conditions. Accordingly, the values of ISC and VOC marked on this module should be multiplied by a factor of 1.25 when determining component voltage ratings, conductor ampacities, fuse sizes, and size of controls connected to the PV output. Refer to Section 690-8 of the National Electrical Code for an additional multiplying factor of 125 percent (80 percent de-rating) which may be applicable."

**Nameplate adhesive label material approval information:**

Ritrama's RI-Cote product "RI-COTE 36 PET MATT SILVER UL RECOGNIZED AP900 WG90", UL File Number: MH18669



## *Supplement to Certificate of Compliance*

**Certificate:** 70216168

**Master Contract:** 274817

*The products listed, including the latest revision described below,  
are eligible to be marked in accordance with the referenced Certificate.*

### **Product Certification History**

---

| <b>Project</b> | <b>Date</b> | <b>Description</b>  |
|----------------|-------------|---|
| 70216168       | 2019-06-17  | New certification for 72/60 cell monocrystalline module. Testing was compliant to UL1703 3 <sup>rd</sup> edition. |