

# RNG-80D-SS

## 80W Monocrystalline Solar Panel

### Key Features

The Renogy 80 Watt 12 Vol Monocrystalline Solar Panel features a sleek and durable frame design. This solar panel uses high-efficiency (PERC) monocrystalline silicon solar cells and frame corner supports for outdoor protection.

- High module conversion efficiency
- Top ranked PTC rating
- Quick and inexpensive mounting
- 100% EL testing on all Renogy modules
- No hot spots guaranteed

### Potential Uses

Renogy Solar Panels have applications in residential solar power arrays, water pumping systems, signaling systems, and plenty of other applications. The Renogy 80 Watt solar panel offers a feasible off-grid renewable energy solution for rooftop, RV, boat, and outdoor power systems.



Power Output Warranty



Material and Workmanship Warranty

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## 80W Monocrystalline Solar Panel

### Electrical Data

|  |            |
|--|------------|
| Maximum Power at STC*                  | 80 W       |
| Optimum Operating Voltage ( $V_{mp}$ ) | 18.6 V     |
| Optimum Operating Current ( $I_{mp}$ ) | 4.30 A     |
| Open Circuit Voltage ( $V_{oc}$ )      | 22.3 V     |
| Short Circuit Voltage ( $I_{sc}$ )     | 4.70 A     |
| Module Efficiency                      | 16.8 %     |
| Maximum System Voltage                 | 600 VDC UL |
| Maximum Series Fuse Rating             | 15 A       |

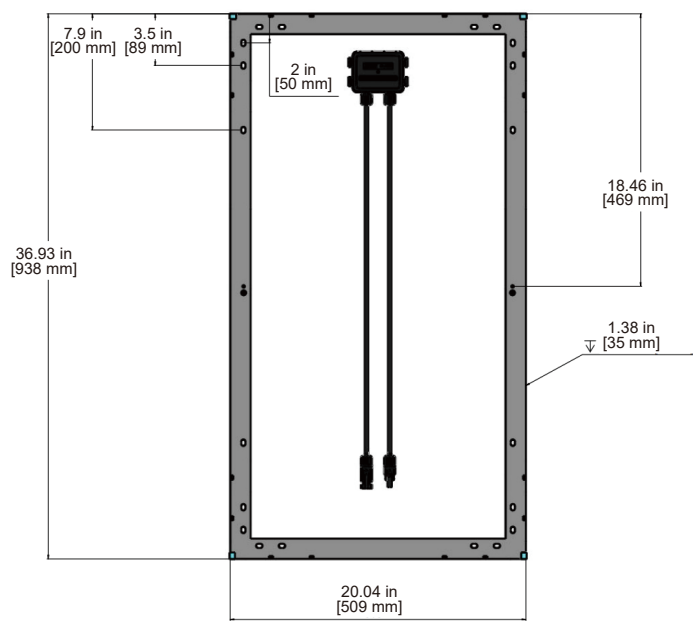
### Thermal Characteristics

|   |                              |
|---|------------------------------|
| Operating Temp. Range                     | -40°C - 85°C (-40°F - 185°F) |
| Nominal Operating Cell Temperature (NOCT) | 47±2°C                       |
| Temperature Coefficient of Pmax           | -0.37%/°C                    |
| Temperature Coefficient of Voc            | -0.28%/°C                    |
| Temperature Coefficient of Isc            | 0.05%/°C                     |

### Junction Box

|                  |                        |
|------------------|------------------------|
| IP Rating        | IP 65                  |
| Diode Type       | HY 10SQ050             |
| Number of Diodes | 2 Diode(s)             |
| Output Cables    | 14 AWG 600mm (23.6 in) |

### Module Diagram



### Mechanical Data

|                  |                                   |
|------------------|-----------------------------------|
| Solar Cell Type  | Monocrystalline (6.3 x 3.1 in)    |
| Number of Cells  | 33 (3 x 11)                       |
| Dimensions       | 938x 509 x 35 mm(36.9x20.0x1.4in) |
| Weight           | 5.5 kg(12.1lbs)                   |
| Front Glass      | Tempered Glass 0.13 in (3.2 mm)   |
| Frame            | Anodized Aluminium Alloy          |
| Connectors       | Solar Connectors                  |
| Fire Performance | Type 1                            |

### MC4 Connectors

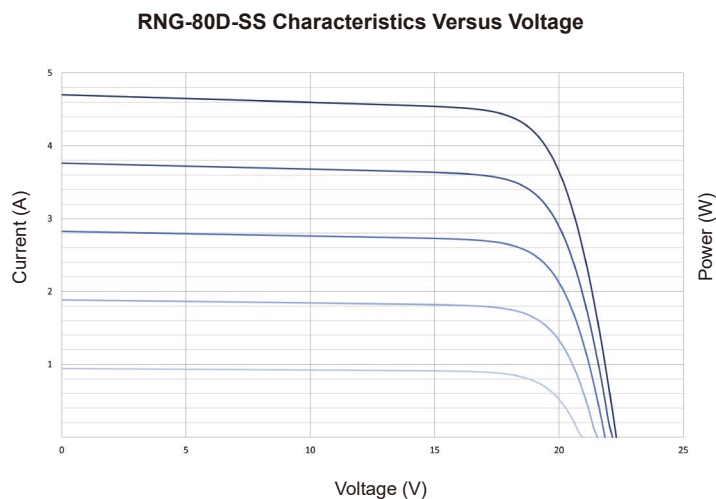
|                        |                             |
|------------------------|-----------------------------|
| Rated Current          | 30A                         |
| Maximum Voltage        | 1000V DC                    |
| Maximum AWG Size Range | 10 AWG                      |
| Temperature Range      | -40°C - 90°C(-40°F - 194°F) |
| IP Rating              | IP 67                       |

### Certifications



ISO 9001:  
Quality Management System

### IV-Curve



\*All specifications and data described in this data sheet are tested under Standard Test Conditions (STC - Irradiance: 1000W/m<sup>2</sup>, Temperature: 25°C, Air Mass: 1.5) and may deviate marginally from actual values. Renogy and any of its affiliates has reserved the right to make any modifications to the information on this data sheet without notice. It is our goal to supply our customers with the most recent information regarding our products. These data sheets can be found in the downloads section of our website, [www.renogy.com](http://www.renogy.com)