

RSP450DT-120

Bifacial 450W Monocrystalline Solar Panel

Key Features

Renogy's Bifacial 450-Watt Monocrystalline Solar Panel features substantial conversion efficiency and immense power output. This solar panel is equipped with exceptionally efficient (PERC) monocrystalline silicon solar cells, providing both cost savings and better power output performance. This product promotes renewable energy deployment.

- 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 power solar power arrays, water pumping systems, signal systems, and plenty of other applications. The Renogy Bifacial 450 W Mono-crystalline Solar Panel is ideal for large-sized solar PV arrays and heavy power consumption loads.



Power Output Warranty



Material and Workmanship Warranty

RSP450DT-120

Bifacial 450W Monocrystalline Solar Panel

Electrical Data

Maximum Power at STC*	450 W
Optimum Operating Voltage (V_{mp})	34.67 V
Optimum Operating Current (I_{mp})	12.98 A
Open Circuit Voltage (V_{oc})	41.25 V
Short Circuit Current (I_{sc})	13.89 A
Module Efficiency	20.8 %
Maximum System Voltage	1500 VDC
Maximum Series Fuse Rating	30 A

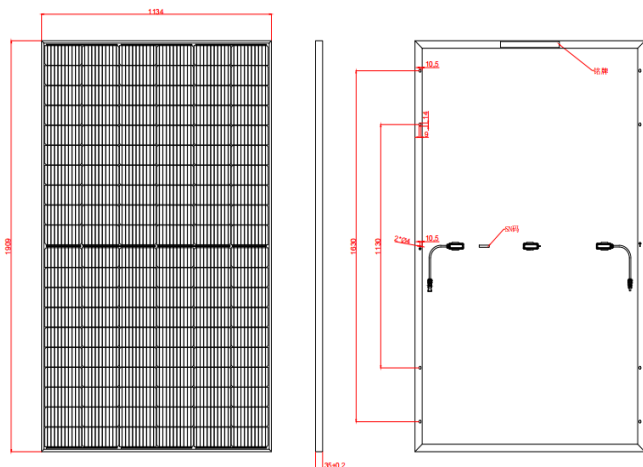
Thermal Characteristics

Operating Temp. Range	-40°C - 85°C (-40°F - 185°F)
Nominal Operating Cell Temperature (NOCT)	45±2 °C
Temperature Coefficient of Pmax	-0.35 %/°C
Temperature Coefficient of V_{oc}	-0.26 %/°C
Temperature Coefficient of I_{sc}	0.05 %/°C

Junction Box

Protection Degree	IP68
Diode	40SQ045
Number of Diodes	3 Diode(s)
Output Cables	12 AWG 300mm (11.8 in)

Module Diagram



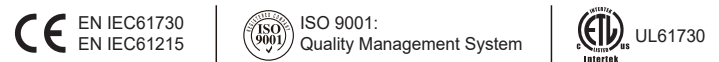
Mechanical Data

Solar Cell Type	PERC Monocrystalline (7.2 x 3.6 in)
Number of Cells	120 (6 x 20), 60 cells in series
Dimensions	1909 x 1134 x 35mm (75.2 x 44.6 x 1.4 in)
Weight	23.1 kg (50.9 lbs)
Front Glass	Tempered Glass 0.13 in (3.2 mm)
Frame	Anodized Aluminium Alloy
Connectors	Solar Connectors
Fire Performance	Type 1

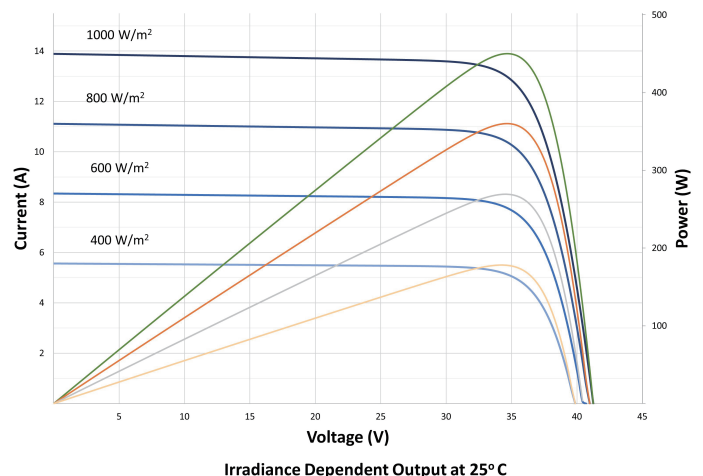
MC4001 - Solar Connectors

Rated Current	40 A
Maximum Voltage	1500 VDC
Maximum AWG Size	10 AWG
Operating Temperature	-40°C - 85°C (-40°F - 185°F)
IP Rating	IP68

Certifications



Electrical Performance



*All specifications and data described in this data sheet are tested under Standard Test Conditions (STC - Irradiance: 1000W/m², 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