

Technical Description



Photovoltaic Module NP44RSSg

Product Code: 16141

36 polycrystalline Si solar cells

Main application: boat deck PV systems

Module Electrical Performance under Standard Test Conditions

Refers to standard test conditions of 1000 Wm⁻² solar irradiance, 25°C cell temperature, Air Mass 1.5.

Note: Maximum power point is subject to +10%/-5% variation. All other values are typical and for guidance only.

Maximum Power Point: 44 Watts, 2.53 Amps at 17.4 Volts.

Short Circuit: 2.80 Amps. Open circuit: 21.7 Volts.

Dimensions and Weight

all dimensions +/- 2mm, weight approximately +/-0.3kg

Length: 596mm. Width: 670mm. Thickness at edge: 3.67mm. Weight: 5.8kg

Construction

Top cover material: Tefzel

Rear cover material: St.Steel1.5mm

Encapsulant (lamination material): EVA/GFmat/TPT

Frame: no

2 factory-fitted bypass diodes

1 junction box type hat

cable 2m

Integral mounting holes

Along length: 582mm centre to centre, 7mm centre to module edge.

4 holes, size 5.5mm.

Across width: 650mm centre to centre, 10mm centre to module edge.

Cell circuit

Cut from full size cells into 1/3 of a cell

Cell dimensions: Length (tab direction) 52mm. Width: 156mm.

Electrical circuit: 36 cells in series

Cell layout: 4 rows, each row is 9 cells long.

Normal Operating Cell Temperature (NOCT)

45°C

error in measurement around +/- 2°C

Cell temperature at 800Wm⁻² solar irradiance, 20°C ambient temperature, wind speed $\leq 1\text{ms}^{-1}$, free air access to rear.

Efficiencies based on Standard Test Conditions Rating

Module: 11.0%

Laminated area: 11.6%

Cells alone: 15.1%

Note: Standard Test Conditions efficiency figures should only be used to compare one module with another. These efficiency figures do not apply to actual field performance, for which a careful analysis of operating conditions is necessary to determine the effects of module temperature and other factors.

Specifications may change due to Naps policy of continuous product improvement.

Please check current specification before purchasing.

Information last updated: 22-Jul-09

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