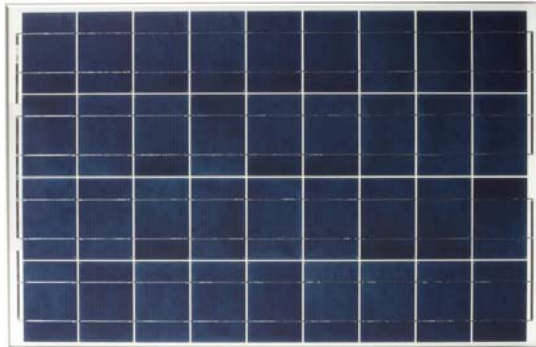


Technical Description



Photovoltaic Module NG 90 TP2 SAW



36 polycrystalline Si solar cells

Main application: general off-grid 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: 90 Watts, 5.06 Amps at 17.8 Volts.

Short Circuit: 5.35 Amps. Open circuit: 22.4 Volts.

Dimensions and Weight

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

Length: 955mm. Width: 670mm. Thickness at edge: 34mm. Weight: 7.7kg

Construction

Top cover material: low iron tempered glass 3mm

Rear cover material: Tedlar-Polyester-Tedlar white

Encapsulant (lamination material): EVA

Frame: anodised aluminium

2 factory-fitted bypass diodes

1 junction box type S1410-2

2 x 4mm earthing holes in frame

Integral mounting holes

Along length: 515/913mm centre to centre, 220/21mm centre to module edge.

8 holes, size 7mm.

Across width: 628/334mm centre to centre, 21/168mm centre to module edge.

Cell circuit

Cut from full size cells into 49/78 of a cell

Cell dimensions: Length (tab direction) 98mm. Width: 156mm.

Electrical circuit: 36 cells in series

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

Normal Operating Cell Temperature (NOCT)

47°C

error in measurement around +/- 2°C

Cell temperature at 800 Wm^{-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: 14.1%

Laminated area: 14.2%

Cells alone: 15.4%

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.

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Please check current specification before purchasing.

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