

PERTOP Monocrystalline Silicon Solar Cells

L2 Series

RESERV 71P series PV Solar Cells manufacturing process is automated from the surface texturization to the final cell sorting. The cells are passivated on both emitter and rear side. The tunnel oxide and poly- Si layer on rear side helps in reducing recombination losses thus improving efficiency. Our Quality Control systems include checking every cell for optical, Electroluminescence (EL) and electrical performance.

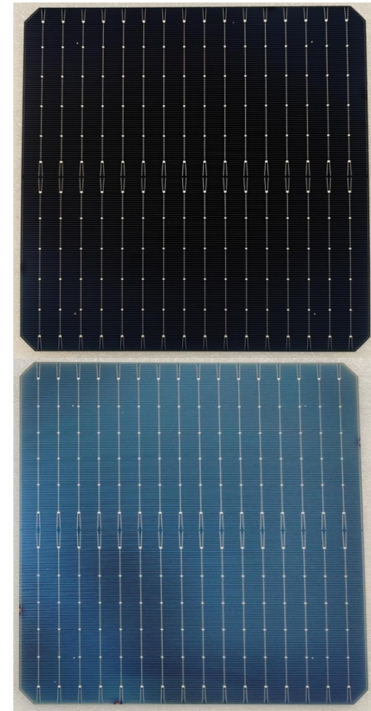
Features

Product	PERTOP Monocrystalline Silicon Solar Cell
Substrate	N-type Mono Crystalline Silicon Wafer
Device Structure	p / n / n ⁺
Dimensions	Size: 182.2mm x 183.75 mm ± 0.25mm Average Thickness: 130 ± 10µm
Front	- SiNx Anti-Reflective Coating - Textured surface 16 Busbars, 172 Fingers - Positive pole (+)
Back	- SiOx passivated surface - N+ Poly-Si layer 16 Busbars, 174 Fingers - Negative pole (-)

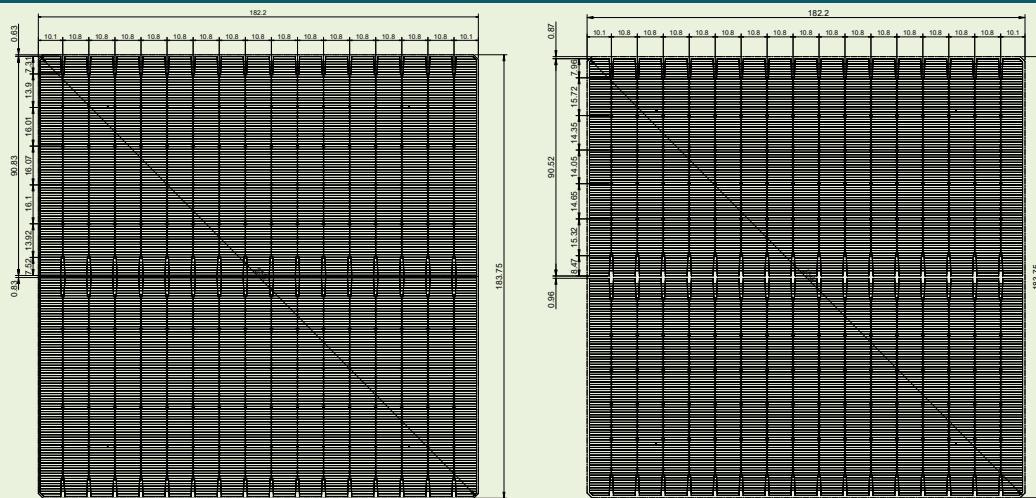
Production and Quality Control

High Conversion Efficiency	100% EL testing
Good Color Uniformity	100% Optical testing
Excellent anti PID performance	Focused in-house R & D
Bifacial cells	Statistical Process Control
Low LID	ISO9001, ISO14001, ISO45001

Cell Images



Cell Lay out



Front View

Back View

Specifications are in mm.

PERTOP Monocrystalline Silicon Solar Cells

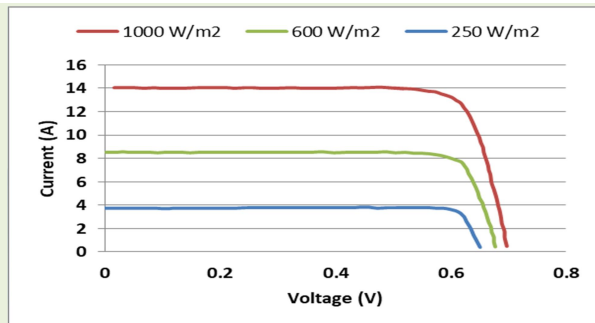
L2 Series

Electrical Data *

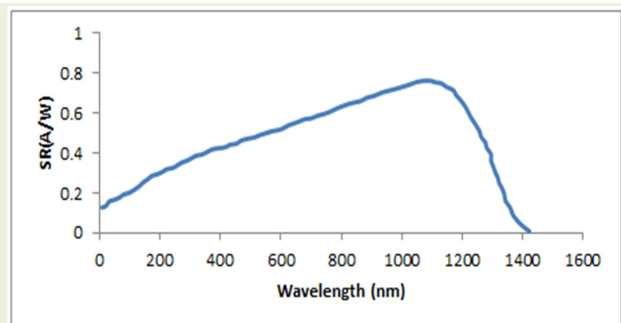
Part No	Class	Efficiency Range (%)	Rated Power (Wp)	Max. Power Current I_{mp} (A)	Short Circuit Current I_{sc} (A)	Max. Power Voltage V_{mp} (V)	Open Circuit Voltage V_{oc} (V)	Fill Factor (%)
RESERV-71PL2-2550	255	25.50 - 25.60	8.54	13.67	14.17	0.625	0.724	83.24
RESERV-71PL2-2540	254	25.40 - 25.50	8.50	13.64	14.13	0.623	0.724	83.13
RESERV-71PL2-2530	253	25.30 - 25.40	8.47	13.61	14.11	0.622	0.723	83.04
RESERV-71PL2-2520	252	25.20 - 25.30	8.43	13.56	14.07	0.622	0.722	83.01
RESERV-71PL2-2510	251	25.10 - 25.20	8.40	13.54	14.05	0.621	0.722	82.91
RESERV-71PL2-2500	250	25.00 - 25.10	8.37	13.50	14.03	0.620	0.720	82.90
RESERV-71PL2-2490	249	24.90 - 25.00	8.33	13.46	13.99	0.619	0.719	82.84
RESERV-71PL2-2480	248	24.80 - 24.90	8.30	13.43	13.95	0.618	0.718	82.83
RESERV-71PL2-2470	247	24.70 - 24.80	8.27	13.40	13.92	0.618	0.718	82.82
RESERV-71PL2-2460	246	24.60 - 24.70	8.23	13.35	13.88	0.617	0.716	82.79
RESERV-71PL2-2450	245	24.50 - 24.60	8.20	13.32	13.85	0.616	0.716	82.72
RESERV-71PL2-2440	244	24.40 - 24.50	8.17	13.29	13.81	0.615	0.715	82.68
RESERV-71PL2-2430	243	24.30 - 24.50	8.13	13.24	13.78	0.614	0.714	82.65
RESERV-71PL2-2420	242	24.20 - 24.30	8.10	13.20	13.75	0.614	0.714	82.57
RESERV-71PL2-2410	241	24.10 - 24.20	8.07	13.17	13.72	0.613	0.713	82.54
RESERV-71PL2-2400	240	24.00 - 24.10	8.03	13.13	13.68	0.612	0.712	82.50

* Standard Test Conditions: AM 1.5, 1000 W/m², 25 °C (Accuracy is $\pm 1.5\%$ rel.)

IV Curve



Spectral Response



Temperature Coefficients

Voltage: - 0.261 % / C

Current: + 0.046 % / C

Power: -0.300 % / C

Process Recommendations

Solder Joint: Copper wire coated with 15 - 25 μ m of Sn/Pb (60%/40%). Soldering results may differ due to different flux, wire, soldering methods and parameters.

Disclaimer: Specifications and data are subject to change without prior notice.