

D6R

Multi-crystalline Photovoltaic Cell

A full range of cell processing, including

- Multi-crystalline Silicon-based cell
- 6 inch cell size with 3 busbars
- Wafer thickness of 180 to 200 μm

High efficiency and thin wafer handling capabilities

- Dynamic optimized setting system
- Soft-touch wafer handling system

Robust-in-house automation systems

- Improved quality, efficiency and yield increase
- Highly automated wafer transport system



About DeSolar

Established as a subsidiary of Delta Electronics, Inc., the world's number one switching power supplies provider, DeSolar is dedicated to the research, development, and production of high-quality solar cells, modules, and photovoltaic (PV) systems. DeSolar strives to become the world's leading solar supplier through continuous innovation, outstanding production processes, high yield rates, and world-class product efficiency. Under its parent company's leadership, DeSolar is committed to providing clean and effective solar energy for a sustainable world.

More Information, please visit us at: www.delsolarpv.com

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Mechanical Specification

Item	Spec
Product	Multi-crystalline silicon solar cell
Dimension	156 mm x 156 mm ± 0.5 mm
Thickness	200 μm ± 30 μm
Front	1.5 ± 0.1 mm busbar (silver) Silicon nitride antireflection coating
Back	3.0 mm continuous soldering pads (silver) Back surface field (aluminum)

Electrical Properties

Efficiency (%)	P _{mpp} (W)	V _{oc} (V)	I _{sc} (A)	I _{min} (A)
18.6	4.53	0.637	8.84	8.53
18.4	4.48	0.635	8.81	8.48
18.2	4.43	0.633	8.77	8.43
18.0	4.38	0.631	8.73	8.38
17.8	4.33	0.629	8.69	8.33
17.6	4.28	0.627	8.65	8.27
17.4	4.23	0.624	8.61	8.22
17.2	4.19	0.621	8.56	8.16
17.0	4.14	0.618	8.51	8.08
16.8	4.09	0.615	8.46	7.99
16.6	4.04	0.612	8.42	7.91

* Testing conditions: 1000 W/m², AM 1.5, 25 °C, Tolerance: Efficiency ± 0.2% abs., P_{mpp} ± 1.5% rel.
* I_{min}: at 0.5 V

Light Intensity Dependence

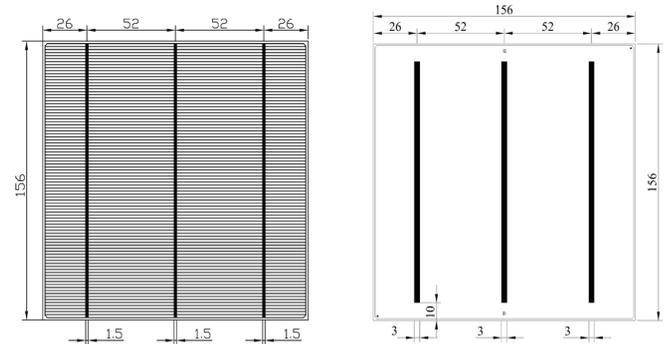
Intensity W/m ²	V _{mpp} *	I _{mpp} *
1000	1.00	1.00
800	0.99	0.80
600	0.99	0.60
400	0.97	0.40
200	0.94	0.20

* Ratio of V_{mpp}/I_{mpp} at reduced intensity to V_{mpp}/I_{mpp} at 1000 W/m²

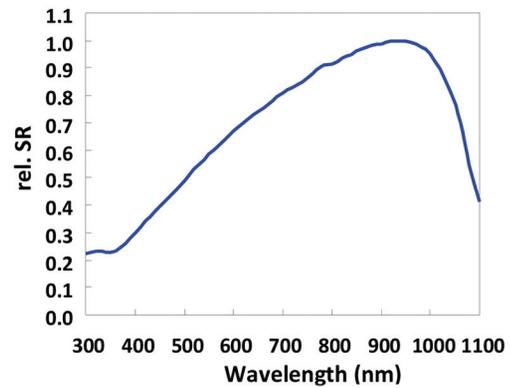
Soldering Ability

Peel Strength: > 1.0 N/mm (Pull soldered ribbon from busbar in 5 mm/s of 180°)

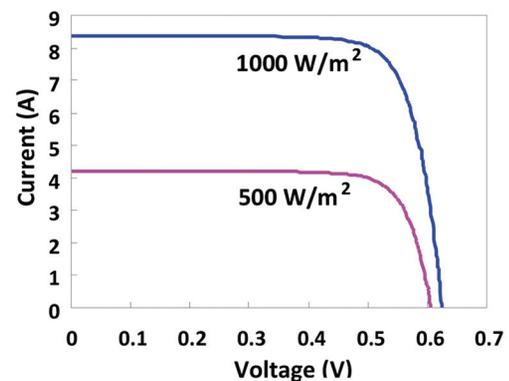
Dimension



Spectral Response



I-V Curves



Temperature Coefficients

Item	Spec
Current	0.05 %/°K
Voltage	-0.34 %/°K
Power	-0.42 %/°K