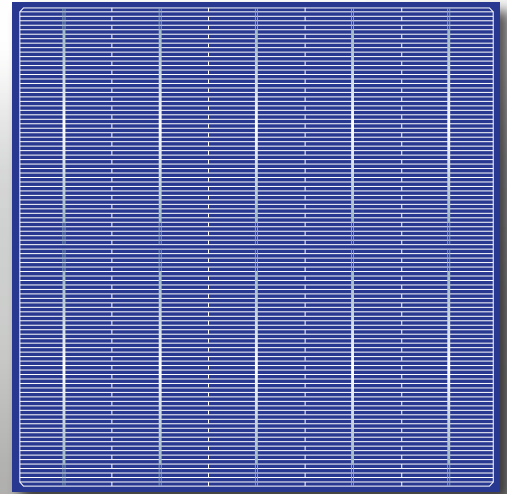




Standard Cell

M-156-5 ver.E

Preliminary



Multicrystalline Solar Cell [Half-cut design]

Features

- High-efficiency solar cells with an isotropically etched surface
- Silicon nitride anti-reflection coating
- Silver front contact bars and full surface aluminum back contact field

Performance and Quality

- Proper handling from incoming inspection through production, outgoing inspection and packaging
- 100% checked for reverse current and visual appearance
- Calibrated against Fraunhofer ISE
- RoHS compliance
- **100% PID Resistance**

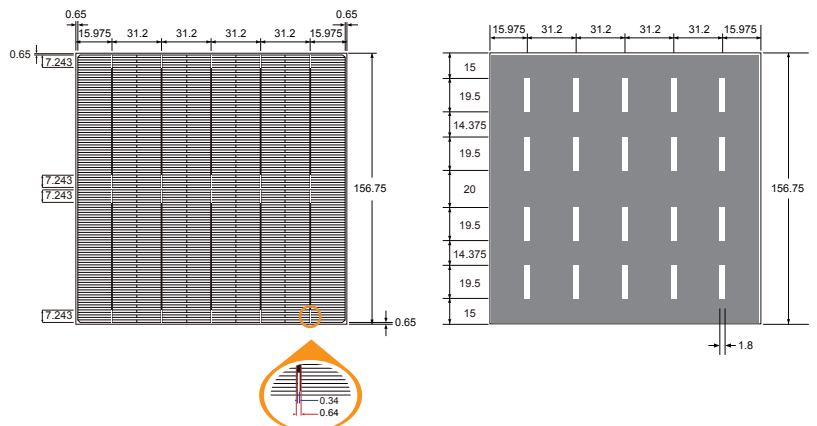
Packaging

- Minimize the risk of broken cells with special design
- Label with product information

Physical Characteristics

Dimension	156.75 mm x 156.75 mm ± 0.3 mm
Thickness (si)	180 μm - 20 / + 30 μm 200 μm ± 30 μm
Front Side (-)	Silicon nitride anti-reflection coating 0.64 mm silver busbar
Back Side (+)	Full surface aluminum back surface field 1.8 mm (silver) discontinuous soldering pads

Cell Layout



M-156-5 ver.E

Multicrystalline Solar Cell [Half-cut design]

Electrical Characteristics

Class	Efficiency Range (%)	Rated Power (Wp)	*Maximum Power Current (A)	*Short Circuit Current (A)	*Maximum Power Voltage (V)	*Open Circuit Voltage (V)
178	17.8-17.9	4.374	8.210	8.667	0.533	0.626
179	17.9-18.0	4.398	8.242	8.699	0.534	0.627
180	18.0-18.1	4.423	8.275	8.732	0.535	0.628
181	18.1-18.2	4.447	8.307	8.765	0.537	0.629
182	18.2-18.3	4.472	8.340	8.798	0.538	0.630
183	18.3-18.4	4.496	8.372	8.831	0.539	0.632
184	18.4-18.5	4.521	8.405	8.864	0.540	0.633
185	18.5-18.6	4.546	8.437	8.897	0.541	0.634
186	18.6-18.7	4.570	8.469	8.928	0.542	0.636
187	18.7-18.8	4.595	8.499	8.958	0.544	0.637
188	18.8-18.9	4.619	8.527	8.985	0.544	0.638
189	18.9-19.0	4.644	8.559	9.017	0.545	0.639

Test condition : 1000 W / m², AM 1.5, 25°C

Power measuring tolerance: ±1.5% rel.

*Data & drawing for reference only.

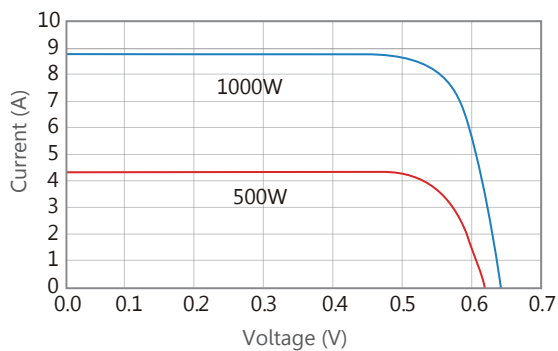
Temperature coefficients

Current (%/K)	0.0611
Voltage (%/K)	-0.3238
Power (%/K)	-0.3782

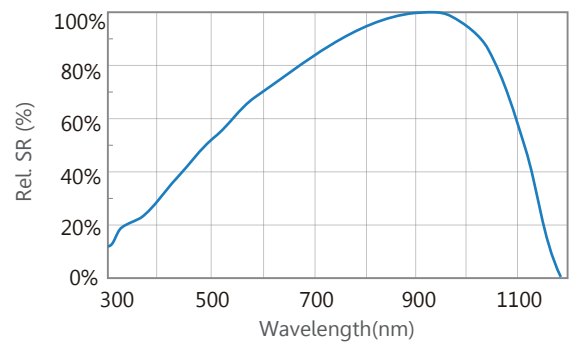
Light Intensity Dependence

Intensity (W/m ²)	Vmpp(%)	Impp(%)
1000	100.0	100.0
900	99.6	90.0
500	97.4	49.8
300	94.9	29.7
200	92.9	19.7

IV-Curve



Spectral Response



Solartech Energy Corp.



Taipei Office
8F., No.760, Sec. 4, Bade Rd., Songshan Dist., Taipei 105, Taiwan
Tel: +886-2-21712388 Fax: +886-2-21712387
E-mail: sales@solartech-energy.com

Hsinchu HQ & Fab
No.16, Guangfu N. Rd., Hsinchu Industrial Park, Hukou, Hsinchu 303, Taiwan
Tel: +886-3-5276888 Fax: +886-3-5276866
Web: www.solartech-energy.com