

SCH6P - Multicrystalline Solar Cells

1. General

Solar Cells Hellas

Solar Cells Hellas is the first vertically integrated PV producer in the Balkan region, operating new, state-of-the-art production equipment, of the highest industrial standards, to produce high quality wafers, cells and modules.

Cell Production Technology

The strict quality control and testing standards of the production process ensures that all cells reaching the customers are of the highest quality and provide

predictable and reliable performance. Narrow current class and optical sorting of all produced cells secures homogeneity of performance in each delivered lot.

Acidic isotexture and the advanced AR coating deposition process employed, lead to high colour uniformity, excellent aesthetic result and optimum light absorption. Print pressure control metallisation method reduces stress. Advanced and high automation level minimizes micro-crack risk. Testing of diode characteristics via reverse current and shunt resistance sorting help eliminate module hot spot occurrence.

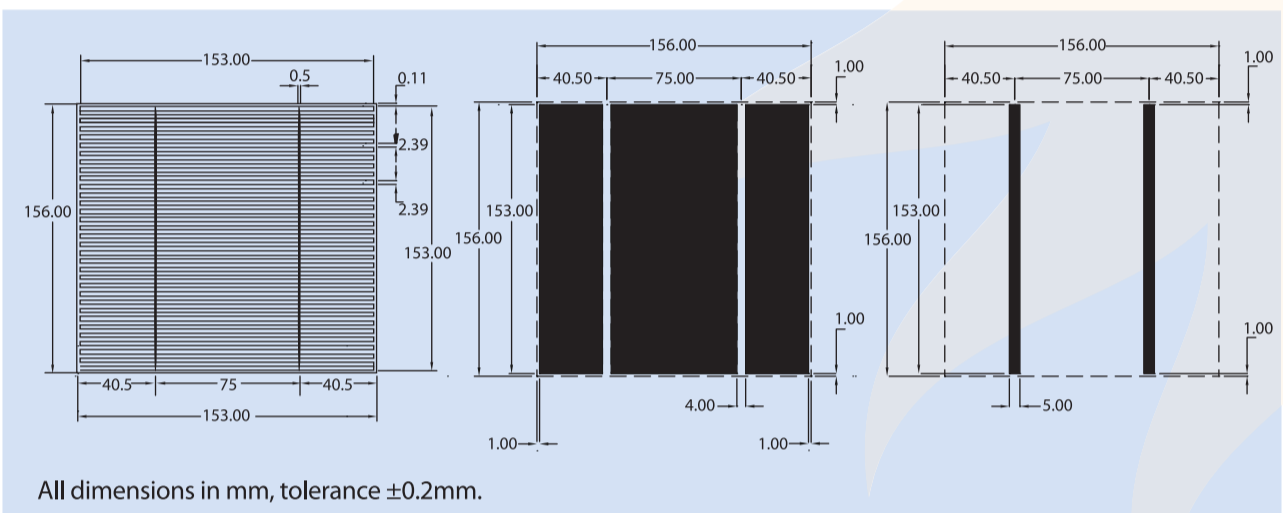
2. Mechanical Characteristics

Dimensions:	156mm x 156mm ±0.5mm
Thickness:	180µm ±40µm, 200µm ±40µm
Front (-):	2 busbars, 2mm wide each, silver, Silicon Nitride (SiN _x) antireflection coating
Rear (+):	2 busbars, 4mm wide each, silver/aluminium, continuous

Solar Cell Front

Solar Cell Rear, Aluminium

Solar Cell Rear, Silver Pads



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Production Facilities: Industrial Zone of Patras, 25200 Ag. Stefanos, Block 31A, tel: +30 2610 241958, fax: +30 2610 647129

Solar Cells Hellas S.A. reserves the right to change the specifications at any time without prior notice.

3. Electrical Characteristics*

Average	SCH6P-50	SCH6P-55	SCH6P-60	SCH6P-65	SCH6P-70	SCH6P-75	SCH6P-80	SCH6P-85	SCH6P-90	SCH6P-95	SCH6P-100
η [%]	14.4	14.6	14.8	15	15.2	15.4	15.6	15.8	16	16.2	16.4
P_{max} [Wp]	3.50	3.55	3.60	3.65	3.70	3.75	3.80	3.85	3.90	3.95	4.00
I_{sc} [A]	7.85	7.89	7.93	7.96	7.99	8.03	8.06	8.11	8.17	8.23	8.30
V_{oc} [V]	0.596	0.600	0.603	0.605	0.607	0.610	0.612	0.614	0.616	0.618	0.620
Current @ 0.5V [A]	≥ 6.84	≥ 6.96	≥ 7.08	≥ 7.20	≥ 7.32	≥ 7.42	≥ 7.52	≥ 7.62	≥ 7.72	≥ 7.82	≥ 7.92

Temperature Coefficients: a(I_{sc}): +0.04%/K, b(V_{oc}): -0.36%/K, g(P_{mpp}): -0.44%/K

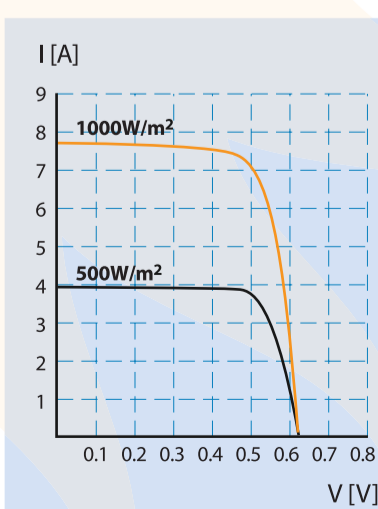
* All data measured at standard test conditions (STC): 1000W/m², AM1.5, 25°C

4. Performance Curves

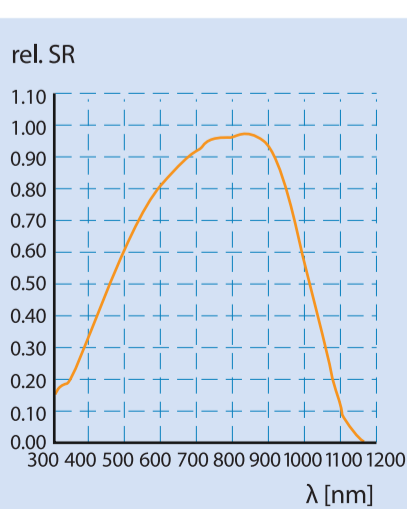
Light Intensity Dependence

Intensity [W/sqm]	Rel. V _{mpp}	Rel. I _{mpp}
1000	1.000	1.0
800	0.990	0.8
600	0.985	0.6
400	0.980	0.4
200	0.940	0.2
100	0.890	0.1

IV-Curve



Spectral Response



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