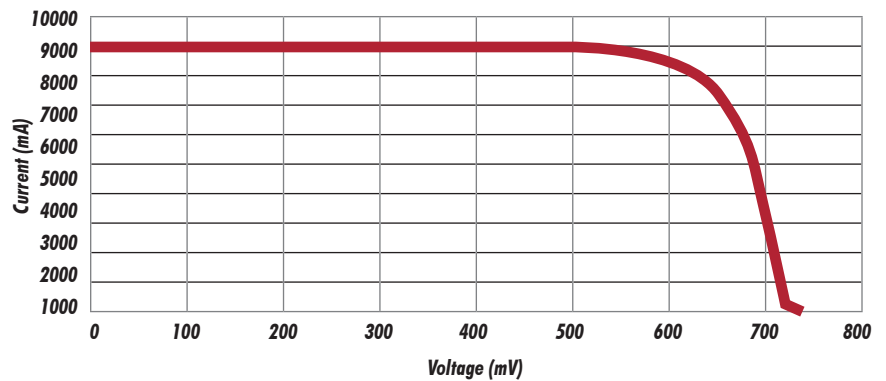
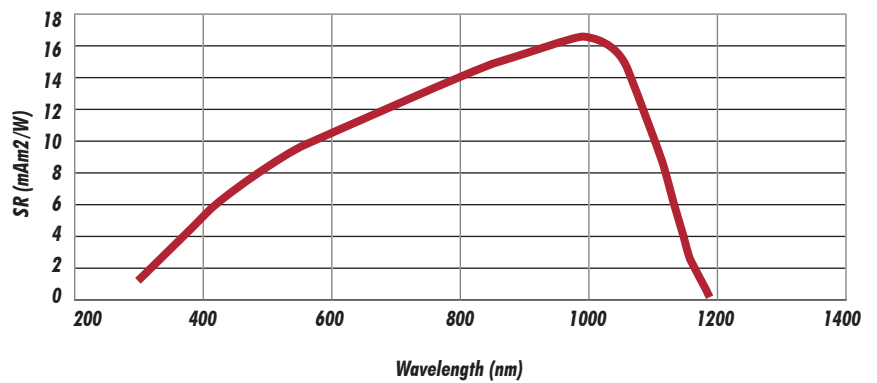


Desert solar cells for high efficiency and exceptional energy harvest!

I-V Curve



Spectral Response

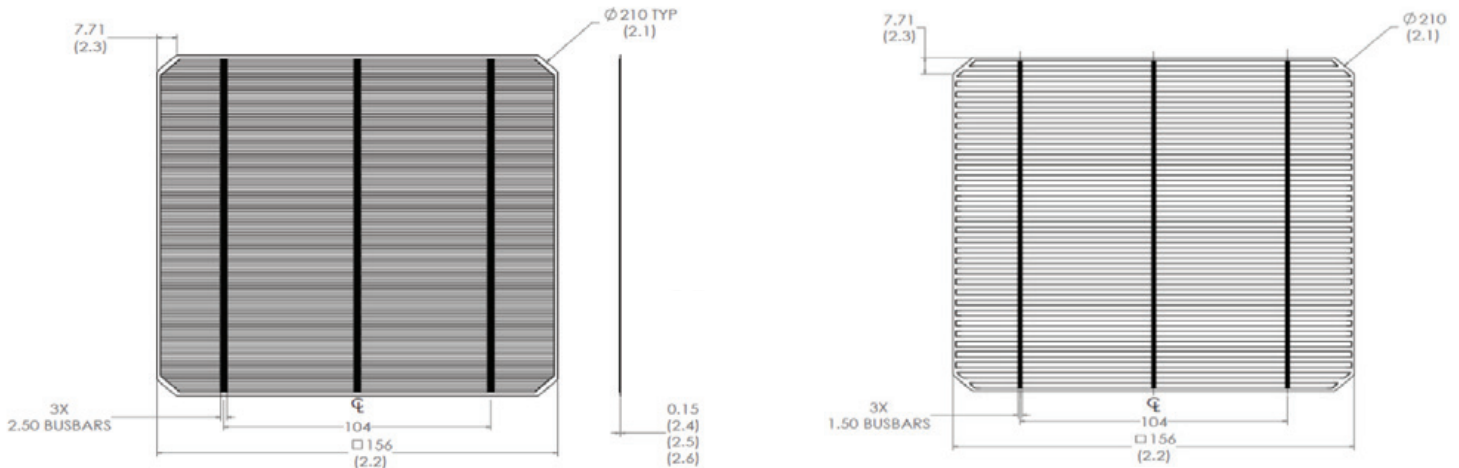


J. v. G. Thoma GmbH
Möningerberg 1a
D-92342 Freystadt

Phone: +49/9179 - 9460680
Fax: +49/9179 - 90522
Mail: info@jvg-thoma.de
Web: www.jvg-thoma.de

Turnkey production lines – Germany

Cell dimensions



Electrical performance

		P1	P2	P3	P4
Power code					
Efficiency	Eff (%)	19.0	19.5	20.0	20.5
Power	P _{pm} (W)	4.59	4.71	4.83	4.95
Max. power current	I _{pm} (A)	8.03	8.1	8.18	8.27
Short circuit current	I _{sc} (A)	8.98	8.99	9.01	9.02
Max. power voltage	V _{pm} (V)	0.580	0.590	0.599	0.608
Open circuit voltage	V _{oc} (V)	0.704	0.709	0.715	0.718
Fill factor	FF (%)	73.8	75.1	76.2	77.7

Mechanical data

Area	24,221.3±100mm ²
Dimensions	156±0.3 mm × 156±0.3 mm
Wafer thickness	180±20µm
Frontside electrode (-)	3 x 1.5mm wide busbar (copper), blue anti-refl ecting coating (TCO)
Backside electrode (+)	3 x 2.5mm wide busbar (copper), blue anti-refl ecting coating (TCO)

Temperature coefficients (STC)

Current	α (I _{sc})	0.06%/°C
Voltage	β (V _{oc})	-0.25%/°C
Power	γ (P _{max})	-0.24%/°C

Solderability

Peel Strength Minimum	> 1.18N/mm
-----------------------	------------

The result listed above was obtained using a soldering iron at 300-400°C with flux and ribbon. Results may differ due to different flux, ribbons, soldering methods and parameters.