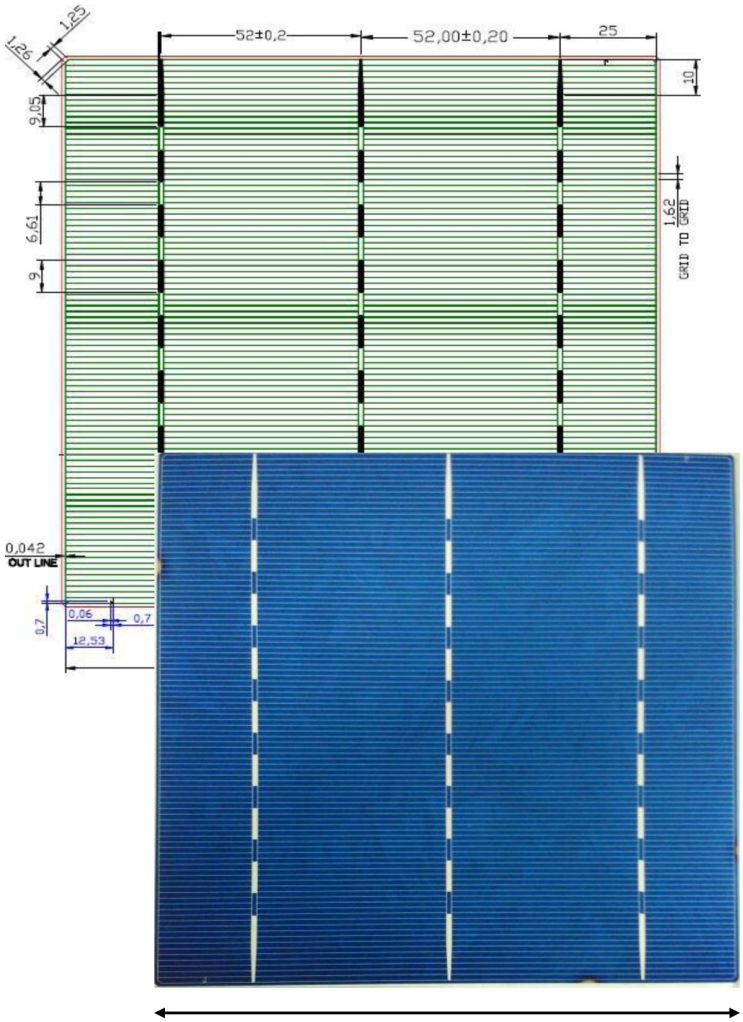
JUPITER SOLAR POWER LIMITED

1. Mechanical Data and Design

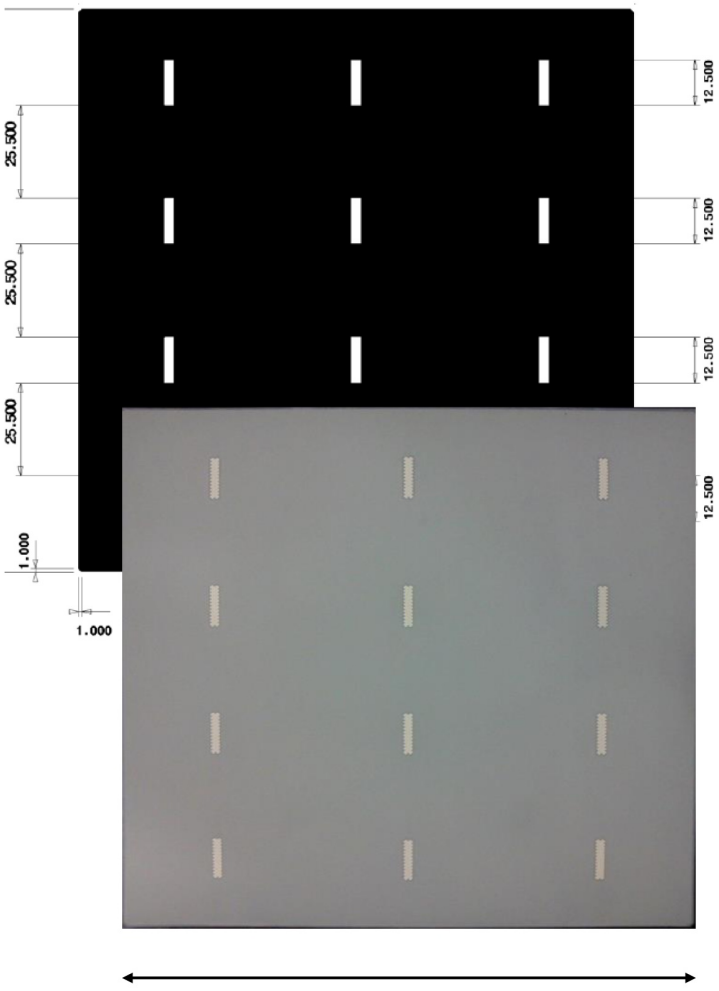
Product	Multi-Crystalline Solar Cell based on virgin Poly-Silicon
Code	JSPL-MC-3BB-FBB1.4-RBB2.7L
Format	156 mm x 156 mm ± 0.5 mm
Thickness	180-235 µm
Front side (-)	Iso – textured, blue antireflective coating (silicon nitride), 3 Bus bars padded,1.4 ± 0.1 mm wide, Silver)
Back side (+)	Soldering pads, 2.7 ± 0.2 mm wide, silver, Aluminium coated (back surface field)
Busbar distance	52 ± 0.2 mm

2. Appearance

Front side of the solar cell	Back side of the solar cell



156 ±0.5



154.5

3. Electrical Data

Efficiency Class	MC-16.80	MC-16.90	MC-17.00	MC-17.10	MC-17.20	MC-17.30
Pmpp(Wp)	4.09	4.11	4.14	4.16	4.19	4.21
Impp(A)	7.91	7.94	7.98	8.00	8.04	8.06
Vmpp(mV)	517	518	519	520	521	522

Efficiency Class	MC-17.40	MC-17.50	MC-17.60	MC-17.70	MC-17.80	MC-17.90
Pmpp(Wp)	4.23	4.26	4.28	4.31	4.33	4.36
Impp(A)	8.08	8.10	8.12	8.16	8.19	8.21
Vmpp(mV)	524	526	527	528	529	531

Efficiency Class	MC-18.00	MC-18.10	MC-18.20	MC-18.30	MC-18.40	MC-18.50
Pmpp(Wp)	4.38	4.40	4.43	4.45	4.48	4.50
Impp(A)	8.24	8.26	8.28	8.31	8.34	8.36
Vmpp(mV)	532	534	535	536	537	539

All data measured at standard testing conditions: 1000W/m^2, 25°C, AM1.5G IEC 60904-3 Ed.2(2008),P_{MPP} +/-1.5 % rel.
Reference cell calibrated by the Fraunhofer ISE in Freiburg

4. Behavior of electrical parameters

Temperature Coefficients

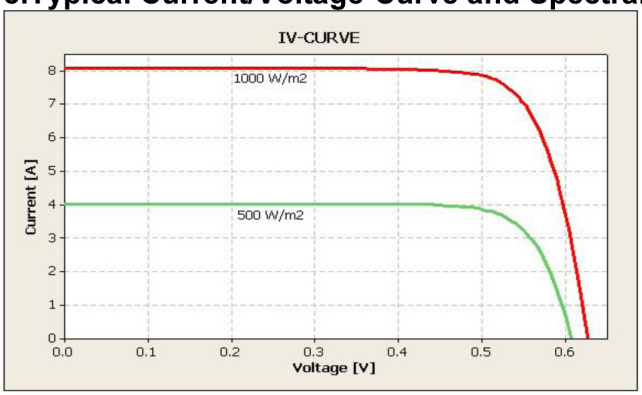
Power	- 0.39 %/ °C
Current	+0.06 %/ °C
Voltage	- 0.32 %/ °C

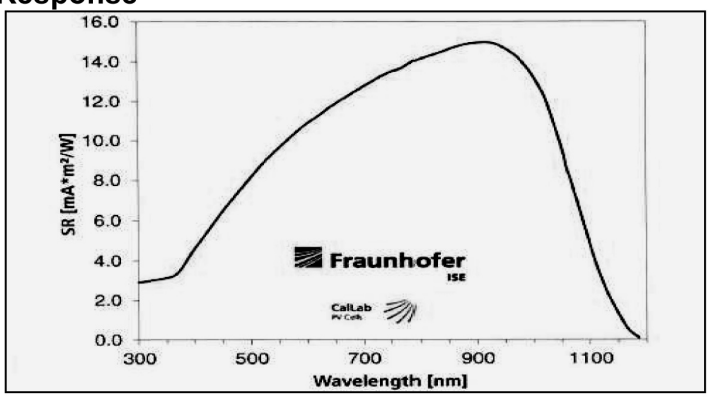
Intensity Dependence

Intensity [W/m^2]	U_{MPP}*	I_{MPP}*
1000	1.00	1.0
500	0.98	0.5

*Ratio of U_{MPP} / I_{MPP} at reduced intensity to value at 1000 W/m^2

5.Typical Current/Voltage-Curve and Spectral Response





6. Processing Recommendations

Solder Joint — Copper ribbons coated with 16-22 µm: 62 % Sn / 36 % Pb / 2 % Ag of Thickness 250um.

JUPITER SOLAR POWER LIMITED

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