

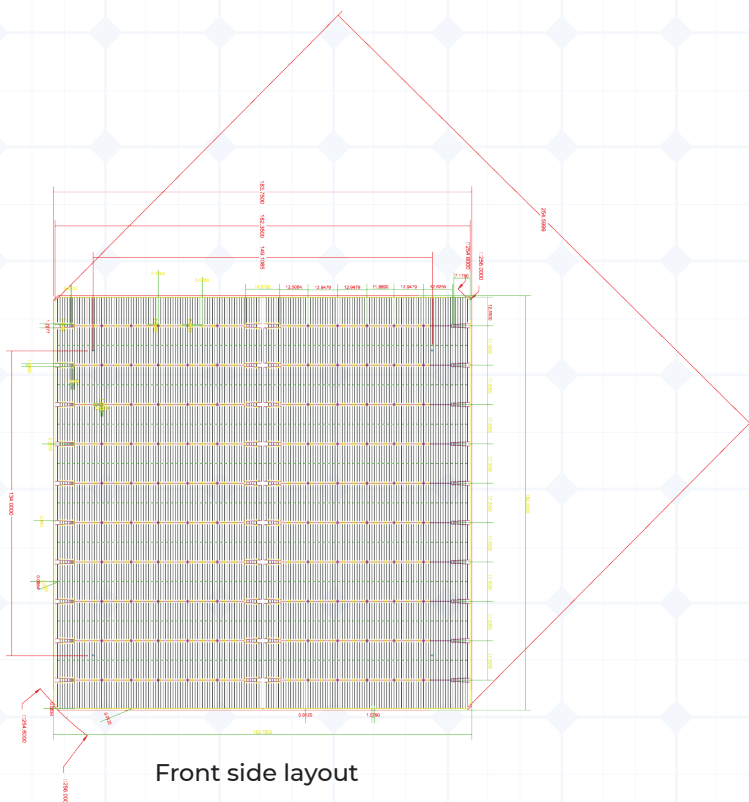


Mechanical Data

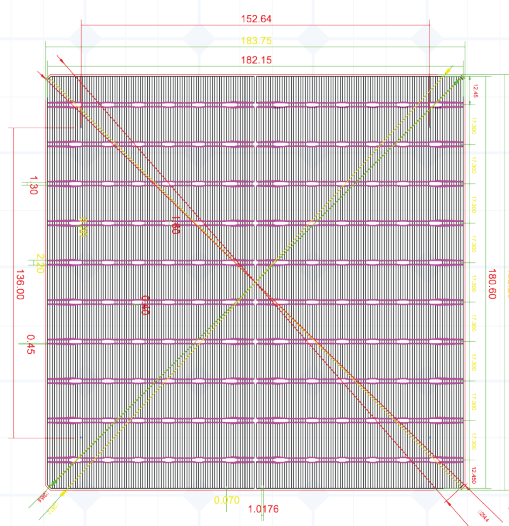
Model	182.2X183.75
Cell Type	Mono PERC Bifacial Solar Cell
Cell Format	182.2 x 183.75 ± 0.50mm
Cell Thickness (with Metallization)	166 ± 16 µm
Cell Diagonal	256±0.50mm
Front side (-)	10*0.10±0.05mm Bus Bar (Silver) Blue (Dark blue) antireflection layer (SiONx), Front side field size 180.80*182.35 ± 0.30mm ,170 Silver Fingers, Half cut design, 14 no. soldering pads/ bus bar (04 no. head pad of 1.4x1.2mm ±0.20mm and 10 no. middle pad of 1.0x0.8mm±0.20mm)
Back side (+)	12 no. soldering pads/bus, rear electrode (Silver) covered with Aluminum fingers, Half cut design with back side field size 180.80*182.35 ± 0.30mm, fingers 180
Center to center Bus Bar distance	17.3 ± 0.15 mm
Rear Side Polishing	Acidic



Cell Layout



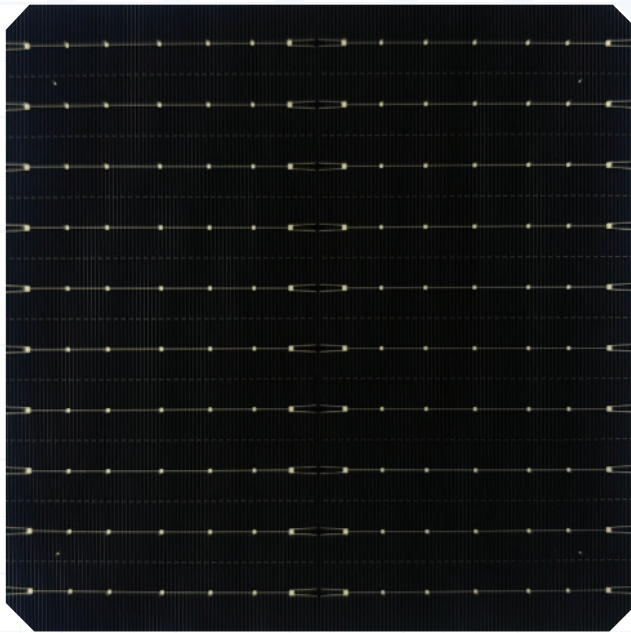
Front side layout



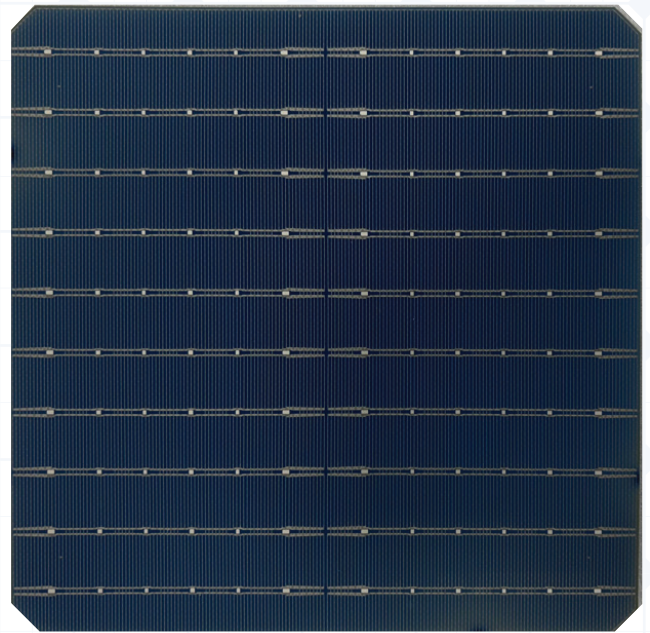
Rear side layout



Cell Appearance



Front side appearance



Rear side appearance



Electrical Performance

- Shunt resistance: Greater than 60 Ω with 98% population greater than 100 Ω
- Leakage current @ -12V: Maximum I_{rev} 0.8A with 98% population having I_{rev} less than 0.50A
- 100% PID Resistive, Compliance as per IEC 62804, MNRE
- 100% Inline EL Testing
- Fill Factor >80.5%
- Optimum RI
- Uniform Color Quality
- Compliance as per RoHS Directive (EU) 2015/863
- Outstanding Power output even in low light or high temperature condition
- Optimum Cell Layout

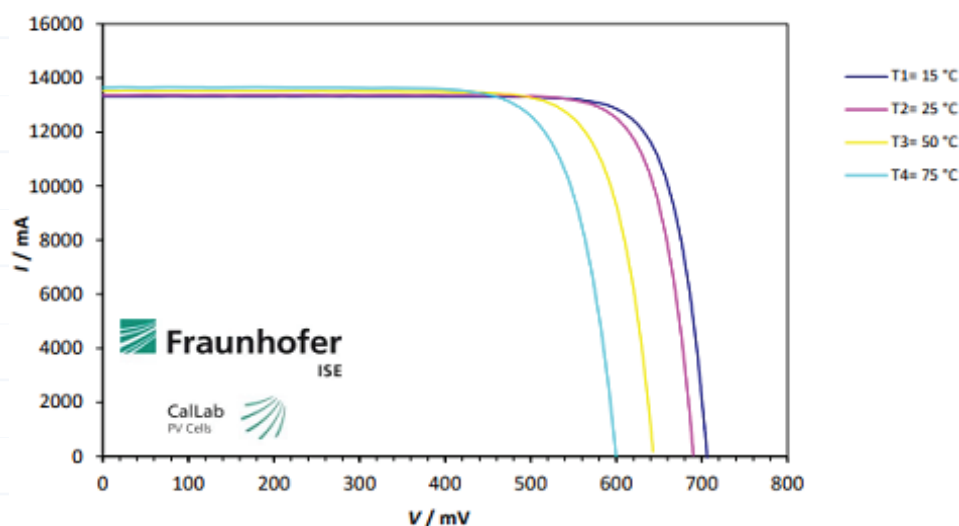
Mono Perc Bifacial Solar Cell Data Sheet

Electrical Data

Efficiency Range	Product Code	Pmax	Voc	Isc	FF	Umpp	Impp
>23.80	23.80L7.97W II	7.97	0.693	13.814	83.21	0.601	13.254
23.70-23.80	23.70L7.93W II	7.93	0.692	13.794	83.04	0.599	13.238
23.60-23.70	23.60L7.90W II	7.90	0.690	13.792	82.95	0.598	13.203
23.50-23.60	23.50L7.87W II	7.87	0.689	13.789	82.79	0.597	13.176
23.40-23.50	23.40L7.83W II	7.83	0.688	13.784	82.52	0.596	13.135
23.30-23.40	23.30L7.80W II	7.80	0.687	13.800	82.30	0.595	13.102
23.20-23.30	23.20L7.77W II	7.77	0.686	13.779	82.15	0.594	13.082
23.10-23.20	23.10L7.73W II	7.73	0.685	13.77	81.94	0.592	13.059
23.00-23.10	23.00L7.70W II	7.70	0.684	13.769	81.71	0.591	13.025
22.90-23.00	22.90L7.66W II	7.66	0.683	13.754	81.54	0.589	13.007
22.80-22.90	22.80L7.63W II	7.63	0.681	13.758	81.45	0.587	12.998
22.70-22.80	22.70L7.60W II	7.60	0.680	13.741	81.29	0.585	12.986
22.60-22.70	22.60L7.56W II	7.56	0.678	13.716	81.26	0.583	12.959
22.50-22.60	22.50L7.53W II	7.53	0.677	13.700	81.19	0.582	12.939
22.40-22.50	22.40L7.50W II	7.50	0.676	13.693	80.98	0.58	12.925
22.30-22.40	22.30L7.46W II	7.46	0.675	13.672	80.84	0.578	12.908
22.20-22.30	22.20L7.43W II	7.43	0.674	13.652	80.75	0.576	12.898
22.10-22.20	22.10L7.40W II	7.40	0.672	13.647	80.64	0.574	12.888
22.00-22.10	22.00L7.36W II	7.36	0.671	13.605	80.60	0.572	12.871

All data measured standard testing conditions: 1000W/m², 25°C, AM1.5G IEC60904-3(2020) and Reference cell calibrated by the Fraunhofer ISE in Freiburg.

Temperature Coefficient



Tk Voltage : -0.259%/K

Tk Current : +0.041%/K

Tk Power : -0.320%/K

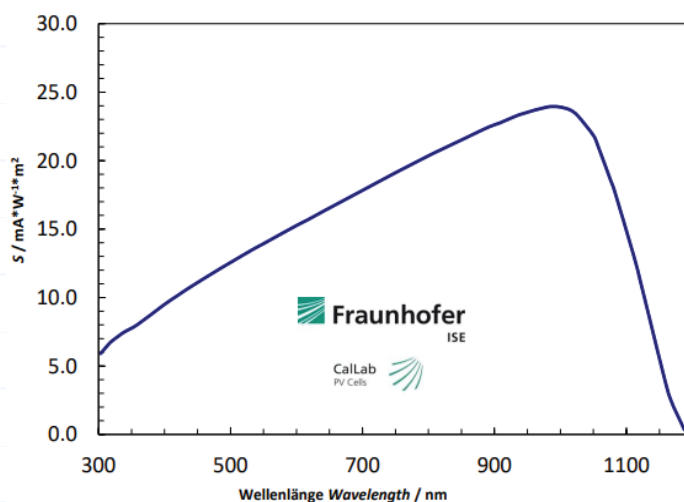


Intensity Dependence

Intensity W/m ²	VOC	ISC
1000	1.000	1.000
800	0.991	0.801
400	0.962	0.402
200	0.922	0.199



Spectral Response



The amplitude of Voc/Isc decreasing with irradiation intensity based on STC (1000w/m²)



Reliability

Peak force on soldering pad $\geq 1.0\text{N}$ (Both FBB & RBB).



Processing Recommendations

Solder Joint: 0.30mm (round) including Sn60Pb40 coating thickness 15 to 20 μm on both sides



Storage Recommendations

Solar cells are fragile and sensitive to storage conditions. So, cells should be stored indoor in the condition of good ventilation, dry, relative humidity below 60% and temperature below 40°C. Solar cells are extremely susceptible to the humidity. It is recommended to make panels using the cells within the six months of the storage period for paramount performance. Once cells are opened from its original primary packing then cells should be used within 4hrs.