

1.目的 Purpose

规范电池片的外观和基本性能, 保证电池片产品满足客户要求。

Regulate the appearance and basic performance of the solar cell to ensure that the cell product meets customer requirements.

2.范围 Scope

适用单晶 182-247-10BB-172F-BBD17.3 双面 PERC 电池 (A-V7.0)

Suitable for MC182-247-10BB-172F-BBD17.3 Bifacial PERC solar cell (A-V7.0).

3.职责和权限 Responsibility and authority

该规格由产品技术部制定, 生产部、品质部、销售部和工艺部参照使用。

This specification is made by product and technology department, and the production department, quality department, sales department and process department refer to it.

4.定义 Definition

无 None

5.内容 Content

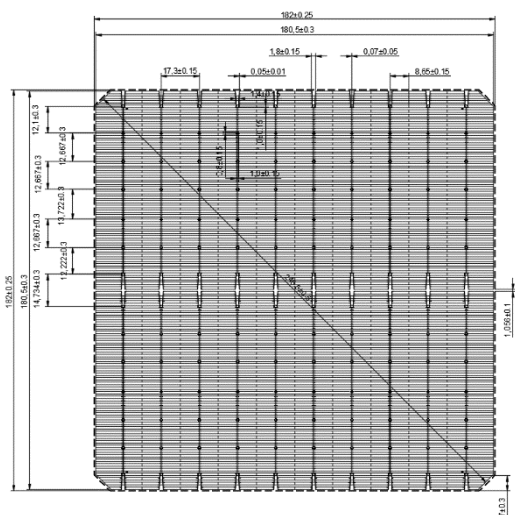
单晶 182-247-10BB-172F-BBD17.3 双面 PERC 电池 (A-V7.0)

外观描述 Appearance Description

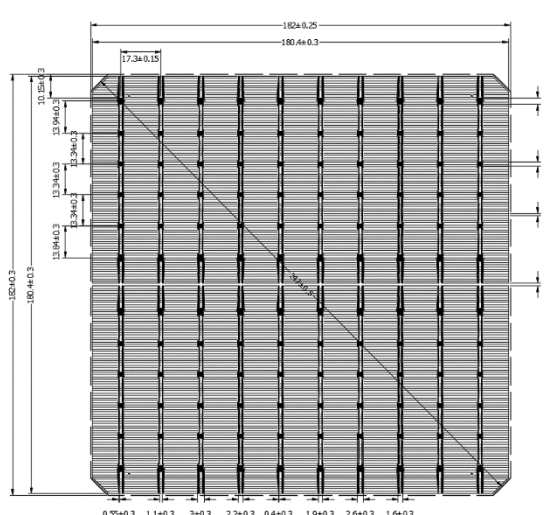
产品型号	Product type	7M9E1018A-L1
尺寸	Dimension	182mm×182mm±0.25mm (φ247mm±0.5mm)
厚度(电池片)	Thickness (Cell)	165μm±17.5μm (掺 NB)
正面 (-)	Front Side (-)	二氧化硅+蓝色氮化硅复合减反膜 (PID Free) ; 半片设计;
背面 (+)	Back Side (+)	钝化复合层 (氧化铝及氮化硅); Passivated layer (AlO _x and SiN _x) and Rear Contact (Al).

电池片外观 Cell Appearance

正面外观 Front Side Appearance



背面外观 Rear Side Appearance



图形描述 Graphical Description

参数项目 Item		规格 Spec
正面 Front Side	主栅数量 Number of busbars	10
	细栅线数量 Number of fingers	172
	主栅线间距 Distance between busbars	17.3±0.15 mm
背面 Back Side	主栅数量 Number of busbars	10
	背面主栅线宽度 width of rear busbar	2.7/2.0±0.3 mm
	背铝栅线数量 Number of rear Al fingers	180
	电极分段数量 Number of Ag electrode sections	12

电性能参数 Electrical Characteristics

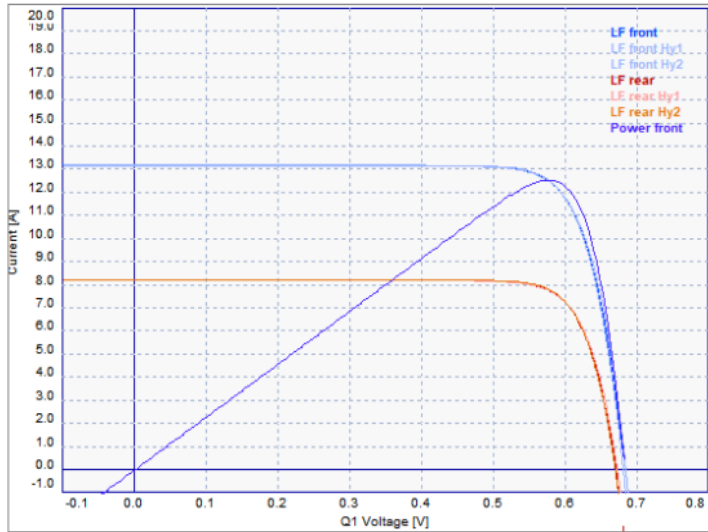
Eff (%)	Pmpp (W)	Umpp(V)	Impp(A)	Voc(V)	Isc(A)	FF(%)
23.70-23.80	7.82	0.616	12.695	0.6972	13.471	83.26
23.60-23.70	7.79	0.614	12.687	0.6957	13.458	83.20
23.50-23.60	7.76	0.612	12.680	0.6943	13.445	83.13
23.40-23.50	7.73	0.610	12.672	0.6930	13.429	83.06
23.30-23.40	7.69	0.607	12.669	0.6908	13.412	83.00
23.20-23.30	7.66	0.605	12.661	0.6893	13.400	82.93
23.10-23.20	7.63	0.603	12.648	0.6875	13.394	82.86
23.00-23.10	7.59	0.601	12.629	0.6862	13.358	82.80
22.90-23.00	7.56	0.599	12.621	0.6850	13.341	82.73
22.80-22.90	7.53	0.597	12.613	0.6837	13.324	82.66
22.70-22.80	7.49	0.595	12.584	0.6830	13.300	82.48
22.60-22.70	7.46	0.593	12.581	0.6822	13.285	82.32
22.50-22.60	7.43	0.591	12.578	0.6812	13.278	82.11
22.40-22.50	7.40	0.589	12.564	0.6795	13.278	81.97
22.30-22.40	7.36	0.587	12.538	0.6781	13.269	81.81
22.20-22.30	7.33	0.585	12.537	0.6765	13.257	81.71
22.10-22.20	7.30	0.583	12.524	0.675	13.249	81.59
22.00-22.10	7.26	0.580	12.51	0.6738	13.240	81.40
21.90-22.00	7.23	0.579	12.495	0.6728	13.227	81.23
21.80-21.90	7.20	0.577	12.482	0.6715	13.214	81.09
21.70-21.80	7.16	0.575	12.459	0.6708	13.202	80.88
21.60-21.70	7.13	0.573	12.443	0.6691	13.199	80.73
21.50-21.60	7.10	0.571	12.439	0.6678	13.186	80.59
21.40-21.50	7.07	0.569	12.424	0.6668	13.177	80.46
21.30-21.40	7.03	0.567	12.403	0.6652	13.154	80.35
21.20-21.30	7.00	0.566	12.375	0.6644	13.126	80.24
21.10-21.20	6.97	0.564	12.36	0.663	13.114	80.12
21.00-21.10	6.93	0.562	12.325	0.6622	13.08	80.03

标准测试条件: 1000W/m², AM1.5, 25°C

I-V 曲线 I-V Curve

温度系数 Temperature Coefficients

[Q1] Forward voltage with light



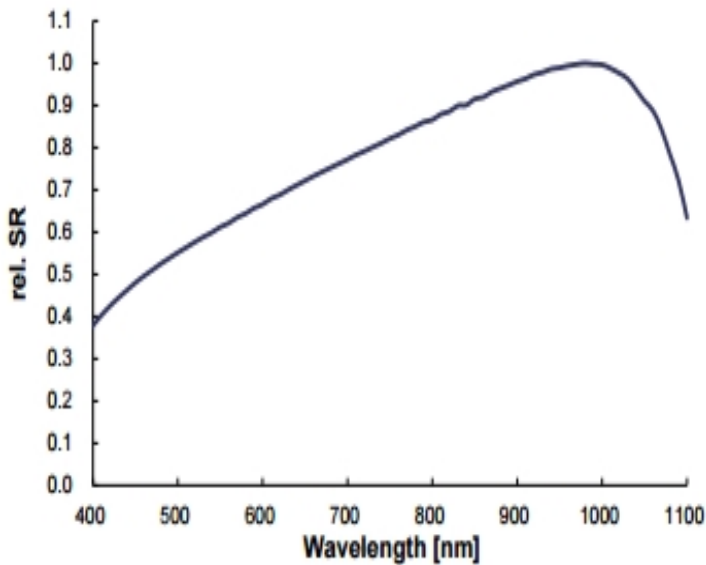
TkVoltage (%/K) : -0.36

TkCurrent (%/K) : +0.07

TkPower (%/K) : -0.38

光谱曲线 Spectral Response

光强响应
Light intensity dependence



Intensity (W/m ²)	Vmpp	Impp
1000	1.000	1.000
800	0.990	0.801
600	0.977	0.600
200	0.923	0.195

Ratio of Vmpp (Impp) at reduced intensity to Impp (Vmpp) at 1000 (W/m²)