非受控文件

Specification of M182-10BB

Bifacial Half-cut design Solar Cell

（182mm*182mm ϕ247）

Doc.No.： LW-M10-BiFi-2072

Revision No.： A3

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Prepared by	LIUQIANG	Checked by	LIHAIPING	Approved by	ZHANGQING

Revision Record

Doc.No.:LW-M10-BiFi-2072

Revision	Modification page number	Revised content	Prepared by	Revision Date
A	All	New Edition	LILEI	2021.02.18
A1	Page 3,Page 4	Unify Cell Thickness	LIUQIANG	2021.04.06
A2	Page 5	Adding 2 efficiency bin	LIUQIANG	2021.05.07
A3	Page 3,Page 4	Improve mechanical load	LIUQIANG	2022.05.16

Lightway Energy Technology Co.,Limited

Product Specification	Product Name	LWM10BB-BiFi-SE-247
	Document Name	Specification of 182mm Bifacial 10BB Solar Cell
	Document Number	LW-M10-BiFi-2072
	Revision Number	A3

1.0 Range of Application

This specification is suitable for Lightway Solar 182mm mono 10BB P-Type Bifacial solar cells and builds up the character and working condition of solar cells.

2.0 Product List

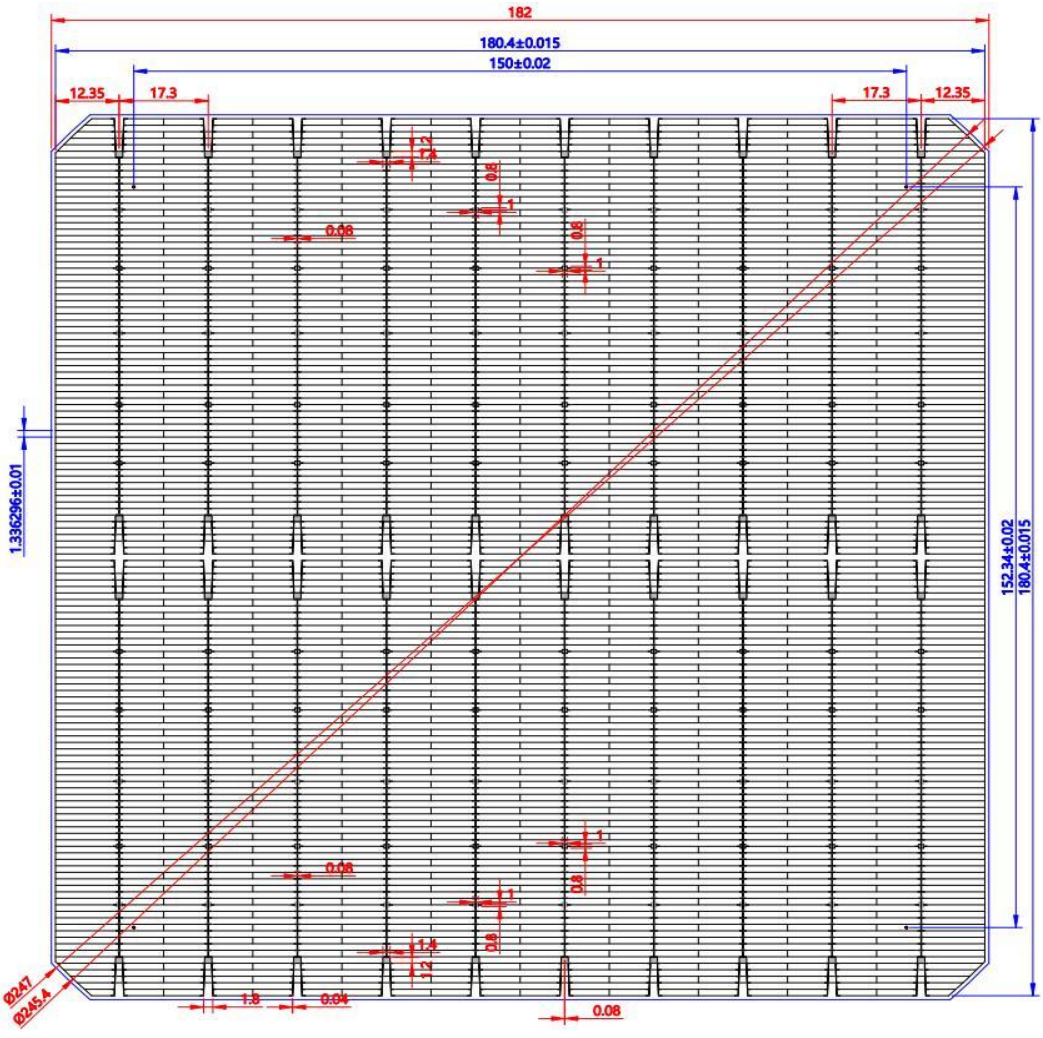
Silicon type	Size	Solar cell thickness
P-Type Mono-crystalline	182*182±0.25Φ247mm	165μm±16.5μm

2.1 Cell Product Number: LWM10BBBiFi247

3.1 Solar Cell Structure

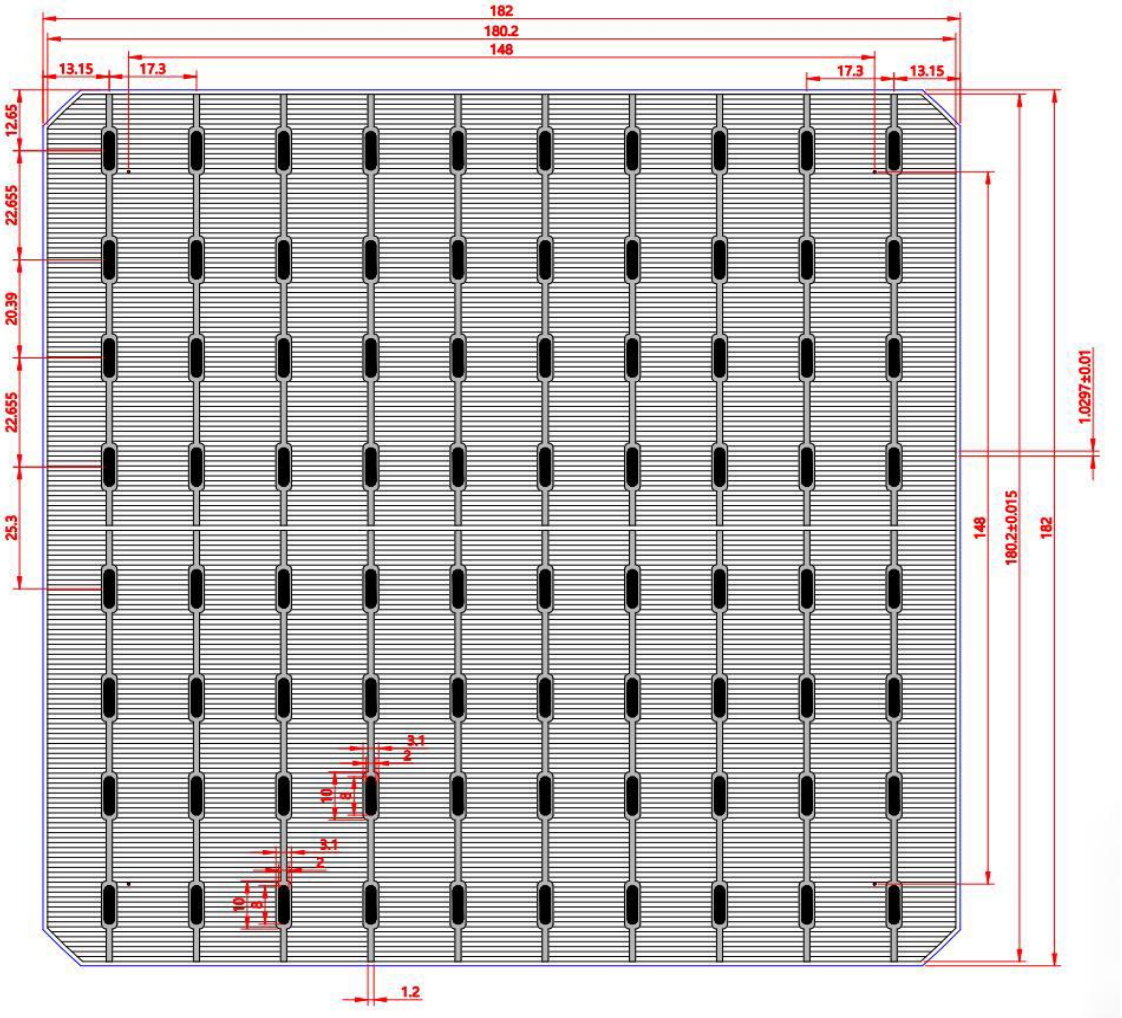
3.1.1 Front electrode pattern

The positive electrode is designed according to the following drawing,the main grid of solar cell consists of ten busbar with a spacing of 17.3mm and a width of 0.08mm.



3.1.2 Back electrode pattern

The back electrodes and electric field are designed according to the following drawing.The back grids of solar cells are ten sliver-aluminium grids with a distance of 17.3mm and a width 2.0mm.



Parameter Items			Spec.	Tolerance	Unit
Front side	A	Finger quantity	136	N/A	Line
	B	Width of busbar	0.08	±0.03	mm
	C	Distance between busbars	17.3	±0.15	mm
	D	The distance between center line and cell edge	12.35	±0.3	mm
Back side	A	Finger quantity	176	N/A	Line
	B	Width of busbar	2.0	±0.03	mm
	C	Distance between busbars	17.3	±0.15	mm
	D	The distance between center line and cell edge	13.15	±0.3	mm

3.2 Electrical Performance

3.2.1 Front Efficiency

Eff(%)	Pmpp(W)	Umpp(V)	Impp(A)	Uoc(V)	Isc(A)
23.50%	7.76	0.612	12.680	0.694	13.445
23.40%	7.73	0.610	12.672	0.693	13.429
23.30%	7.69	0.607	12.669	0.691	13.412
23.20%	7.66	0.605	12.661	0.689	13.400
23.10%	7.63	0.603	12.648	0.687	13.394
23.00%	7.59	0.601	12.629	0.686	13.358
22.90%	7.56	0.599	12.621	0.685	13.341
22.80%	7.53	0.597	12.613	0.684	13.324
22.70%	7.49	0.595	12.584	0.683	13.301
22.60%	7.46	0.593	12.581	0.682	13.285
22.50%	7.43	0.591	12.578	0.681	13.278
22.40%	7.40	0.589	12.564	0.680	13.271
22.30%	7.36	0.587	12.558	0.679	13.269

3.2.2 Electrical Characteristic under STC Standard

a: Intensity: 1000W/m²

b: Spectrum: AM 1.5G

c: Temperature: 25℃

3.2.3 Temperature Coefficients

Voc: -0.30 %/℃

Isc: +0.06 %/℃

Pm: -0.39 %/℃

3.2.4 Standard solar cells origin

First-class: Fraunhofer

3.3 Visual inspection

3.3.1 Sampling plan: According to GB/T2828.1-2012

3.3.2 Defect standard and sampling level: Major defect-Level III -QALO.5

3.3.3 Inspection Time: Not less than 800LUX,about 5 seconds

3.3.4 Color classification: A range of solar cell is divided into four grade,from Light Blue to Dark Blue based on solar cells visual standard(solar cell color sample)

4.0 Records

N/A

5.0 Attachments

N/A

Note:The specification can apply to Lightway Energy Technology Co.,Limited,Jiangsu Lightway Energy PV Technology Co.,Limited,Jiangxi Lightway Energy PV Technology Co.,Limited,Shenzhen Lightway Energy Technology Co.,Limited,Lightway Technology Development Limited and other related subordinate companies under Lightway Group.