

AK iCell

High Efficiency HJT Cell

G12 | 210 Half-cut Bifacial

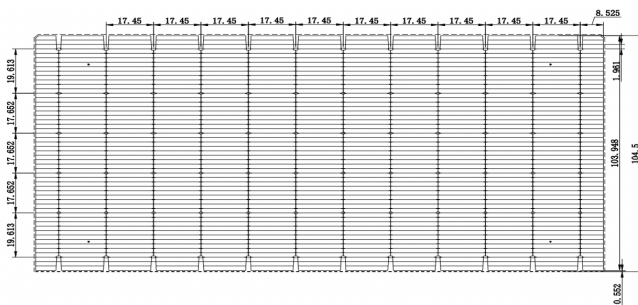
MONO (N-2-12BB-54-12BB-74-G12)



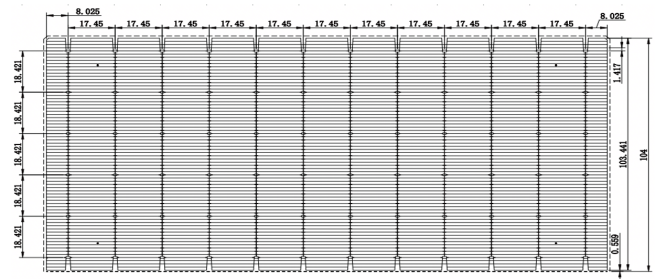
TECHNICAL SPECIFICATIONS

N-TYPE 12BB
MONO CRYSTALLINE SILICON
HJT HALF-CUT BIFICIAL CELL

Cell Drawing



Front



Back

Advantages of Bifacial PV Modules



Efficiency

Average efficiency over 24%



Power Generation

Power generation gain up to 15%+



Bifacial Coefficient

High bifacial coefficient of > 95%



Technique

4-step technique



Wastewater

Zero NH3-N Wastewater



Mass Production

Mass production capability of 100um-thick silicon



Temperature

Production temperature less than 250°C



Yield

Average yield up to 99%



No Attenuation

No PID. LID effect



Temperature Coefficient

Lower temperature coefficient

Main Parameters

Frontal electrical property distribution

Eff (%)	Pmpp (W)	Uoc (V)	Isc (A)	FF (%)	Umpp (V)	Impp (A)
25.0	5.51	0.7487	8.573	85.89	0.675	8.166
24.9	5.49	0.7484	8.560	85.78	0.674	8.145
24.8	5.47	0.7482	8.554	85.47	0.673	8.123
24.7	5.45	0.7478	8.553	85.24	0.672	8.116
24.6	5.43	0.7472	8.542	85.11	0.671	8.093
24.5	5.41	0.7470	8.541	84.80	0.670	8.076
24.4	5.39	0.7469	8.541	84.46	0.668	8.061
24.3	5.37	0.7465	8.536	84.24	0.667	8.046
24.2	5.35	0.7461	8.530	84.01	0.666	8.033
24.1	5.32	0.7456	8.526	83.76	0.664	8.024
24.0	5.30	0.7452	8.521	83.51	0.661	8.017
23.9	5.28	0.7448	8.517	83.25	0.659	8.011
23.8	5.26	0.7444	8.513	83.00	0.657	8.003
23.7	5.24	0.7440	8.507	82.74	0.655	7.991
23.6	5.22	0.7437	8.504	82.48	0.654	7.976
23.5	5.19	0.7433	8.502	82.19	0.653	7.956
23.4	5.17	0.7428	8.502	81.90	0.652	7.932
23.3	5.15	0.7427	8.502	81.56	0.652	7.898

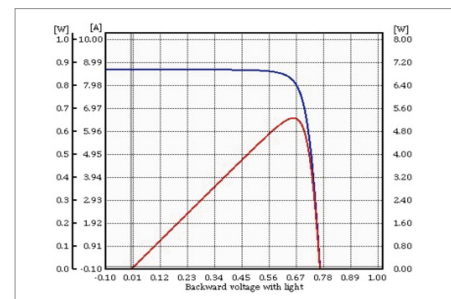
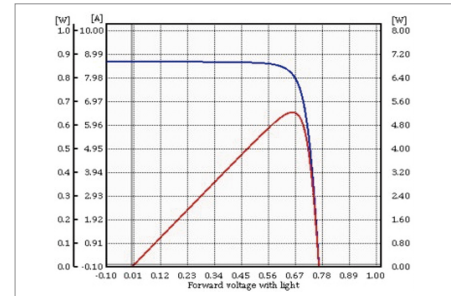
Rear electrical property distribution

Eff (%)	Pmpp (W)	Uoc (V)	Isc (A)	FF (%)	Umpp (V)	Impp (A)
>23.1	5.10	0.749	8.094	84.01	0.659	7.752
22.9-23.0	5.08	0.748	8.075	83.96	0.658	7.736
<22.9	5.05	0.747	8.082	83.63	0.657	7.678

Packaging Information

Cell	case/box	pcs/case	pcs/box	length (cm)	width (cm)	height (cm)	weight (kg)
210 half piece	12	200	2400	57.5	31	29.5	20.5

Characteristic Curve



Specification

Size	210 mm*105 mm ± 0.25 mm
Material	N-type mono crystalline silicon
Thickness	150 ± 20 μm
Front (-)	12*0.06mm main grid line (Ag), 54 secondary grid lines (Ag), Blue transparent conductive film(TCO)
Back (+)	12*0.06mm main grid line (Ag), 74 secondary grid lines (Ag), Blue transparent conductive film(TCO)

Temp. Coefficient

a	Voltage (Voc) : ~ -0.27%/°C
b	Current (Isc) : ~ -0.055%/°C
c	Power (Pm) : ~ -0.258%/°C