

SOLAR MODULES THAT
OUTSHINE
EXPECTATIONS

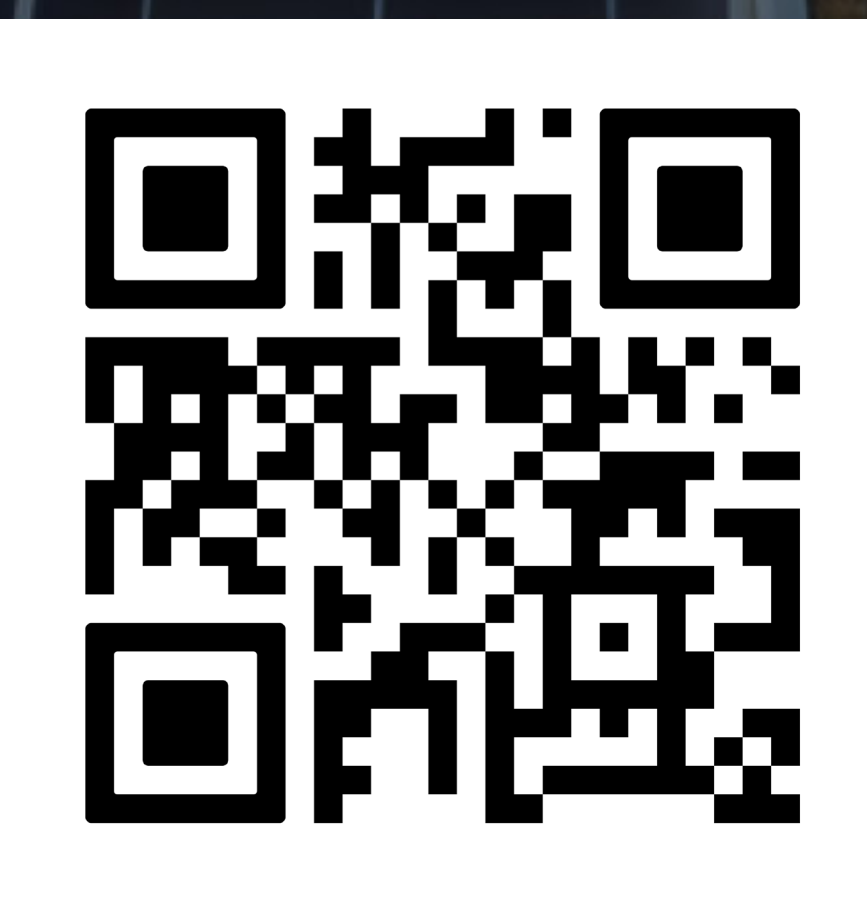
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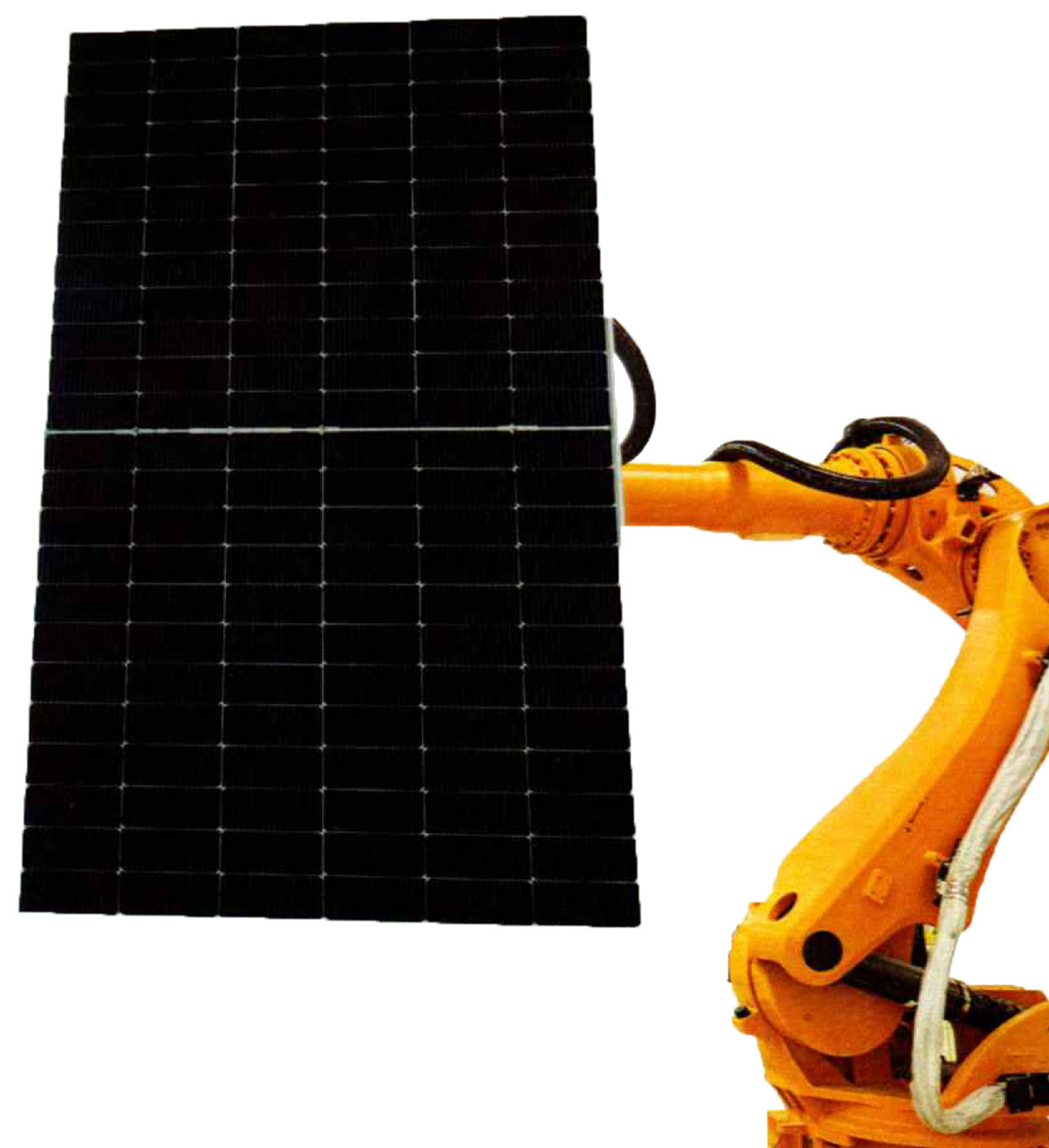
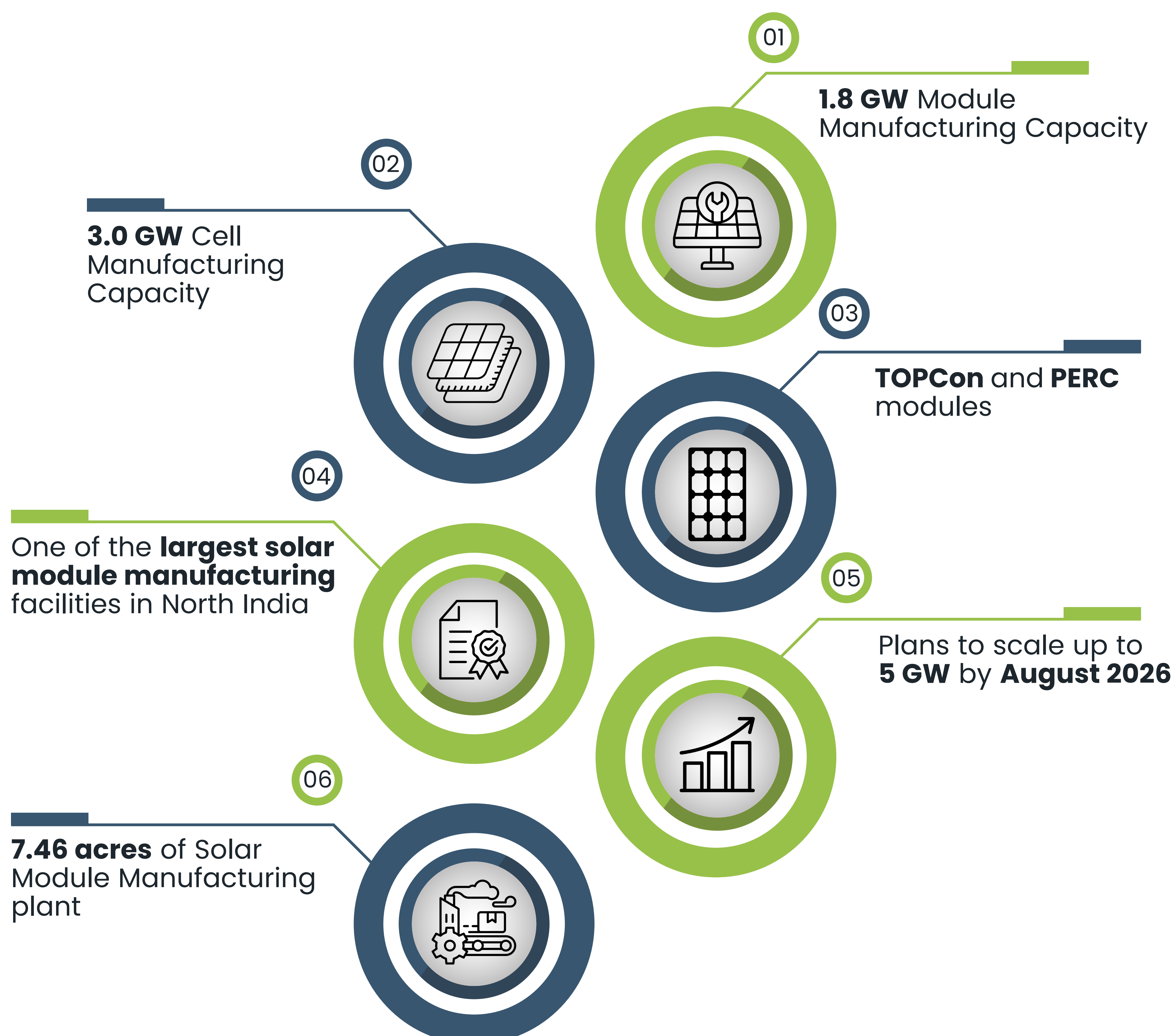
About us

Solarworld is a leading renewable energy solutions provider with over 12 years of expertise and a project portfolio exceeding 1 GW. We are committed to delivering the highest standards of quality, performance, and reliability, offering a comprehensive suite of services designed to meet the diverse needs of our clients.

As one of India's top solar module manufacturers, our state-of-the-art facilities in Roorkee, Uttarakhand, boast an annual production capacity of 1.8 GW. We offer a wide portfolio of high-efficiency monocrystalline bifacial and N-Type TOPCon solar modules, utilizing advanced technology to drive cost efficiencies and enhance performance.

Our services encompass end-to-end Solar EPC (Engineering, Procurement, and Construction), Solar Park Development, and the deployment of both Rooftop and Ground-Mounted Solar Projects. We provide customized energy solutions for government organizations, industries, commercial enterprises, and institutions. We're a trusted partner to industry leaders such as NTPC, SJVN, RVPNL, GUVNL, Haldiram's, Coca-Cola Bottlers, and KRBL, consistently demonstrating our ability to deliver complex energy projects with precision and excellence.

In addition to our manufacturing and EPC capabilities, we specialize in advanced Grid-Class Energy Storage Systems, available in 20-ft and 40-ft containerized formats. These systems are designed to boost energy resilience and ensure grid stability. As an Independent Power Producer (IPP), Solarworld is actively developing a 650 MWh battery storage project contributing to India's clean energy transition and self-reliance.





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Product Offerings

SOLAR MODULES

144 cells | Topcon Bifacial 16BB

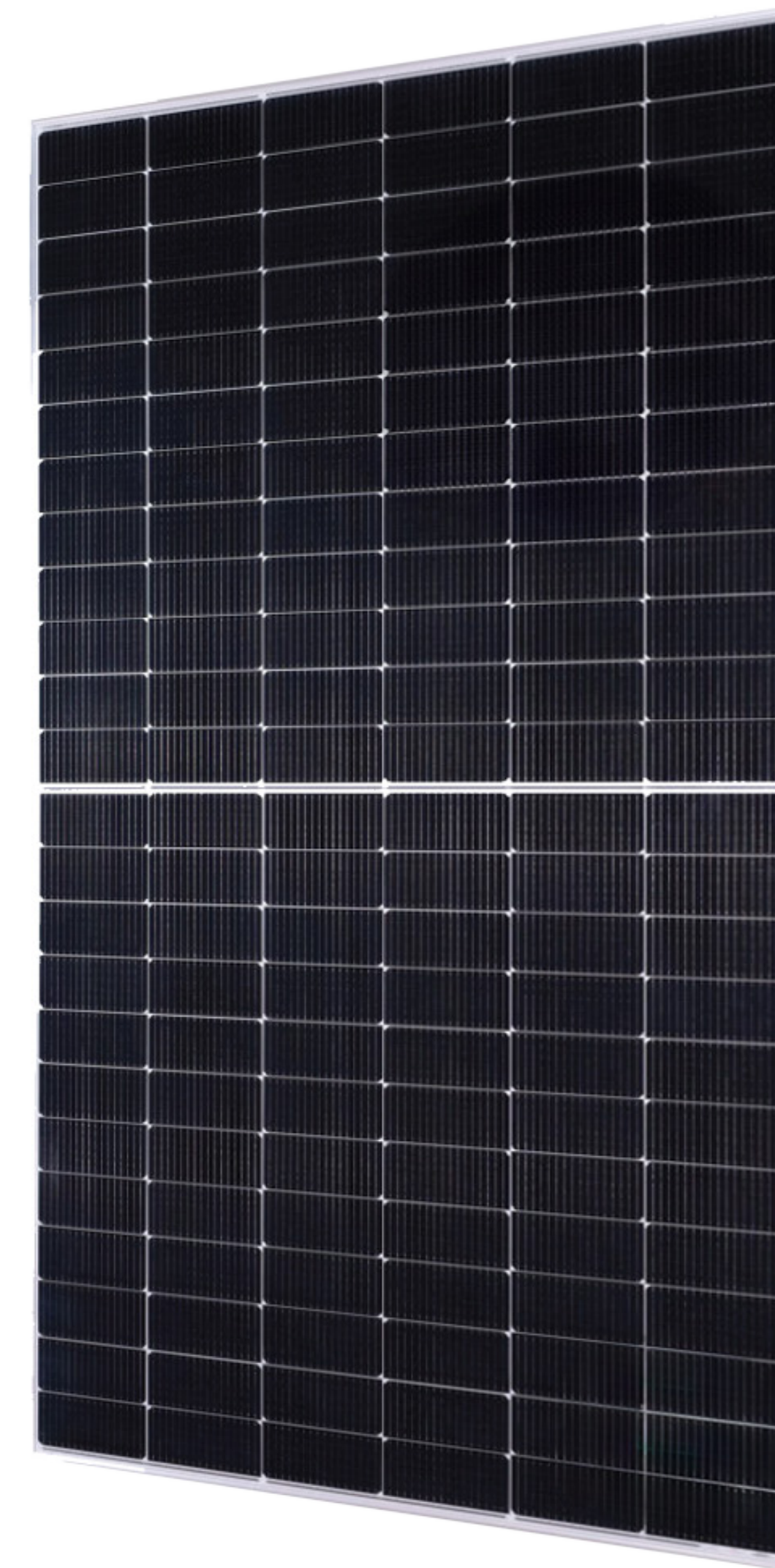
AURIGA | 570-600Wp



Maximum Efficiency
23.23%

156 cells | Topcon Bifacial 16BB

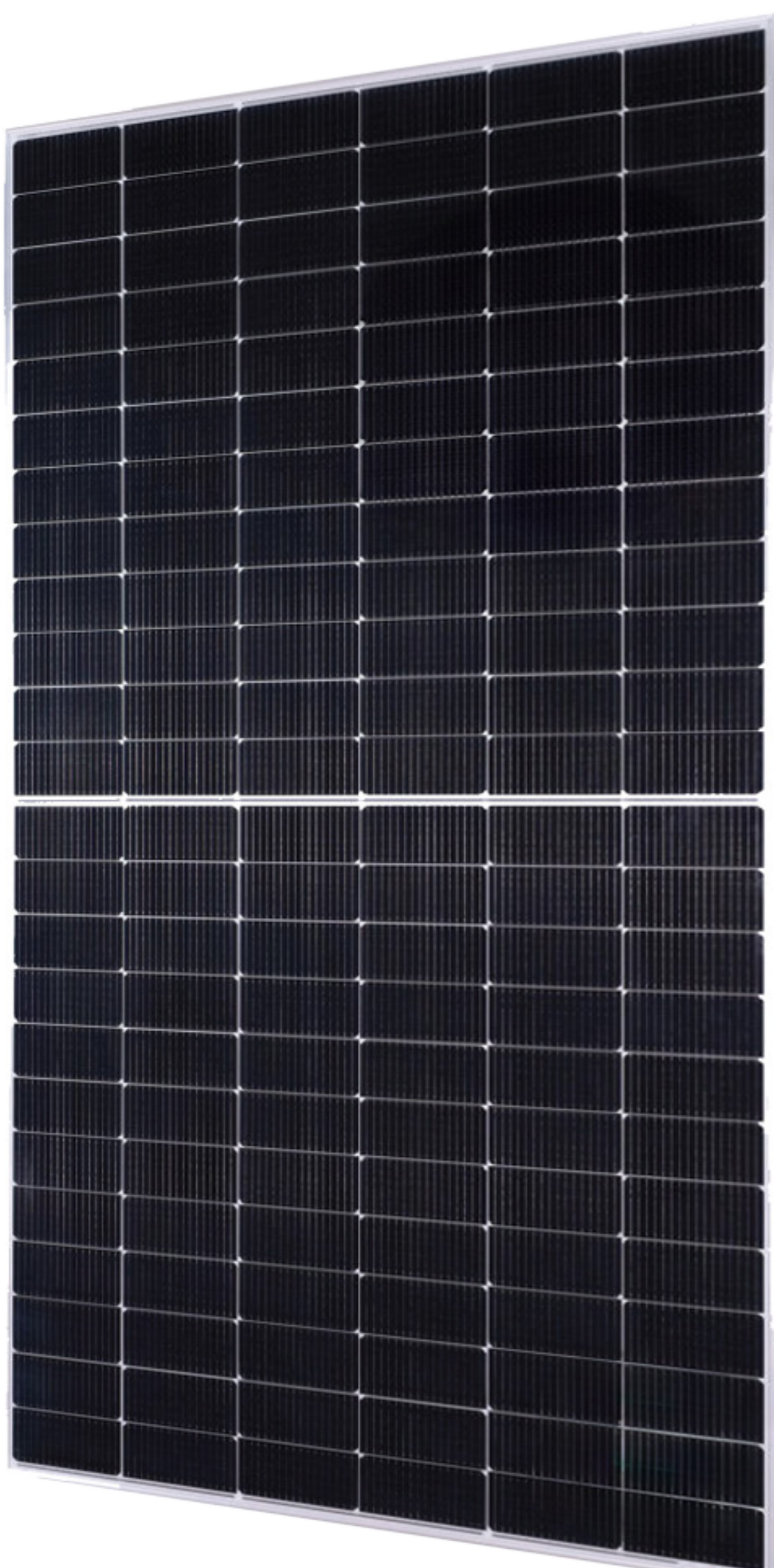
ALTAIR | 600-645Wp



Maximum Efficiency
23.07%

132 cells | Topcon Bifacial 16BB

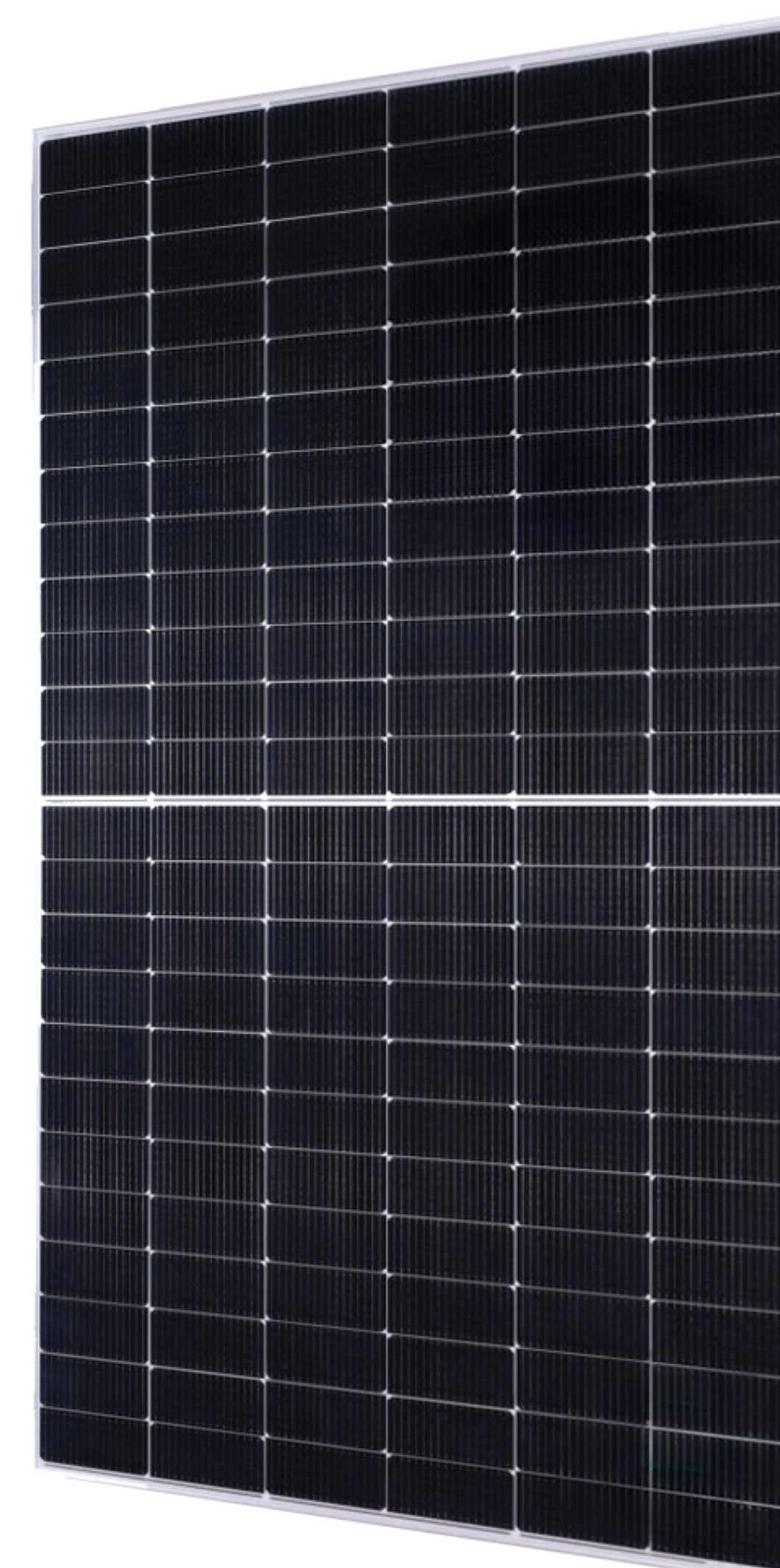
SIRIUS | 585-640Wp



Maximum Efficiency
23.69%

132 cells | Topcon Bifacial 18BB

AQUILA | 650-715Wp



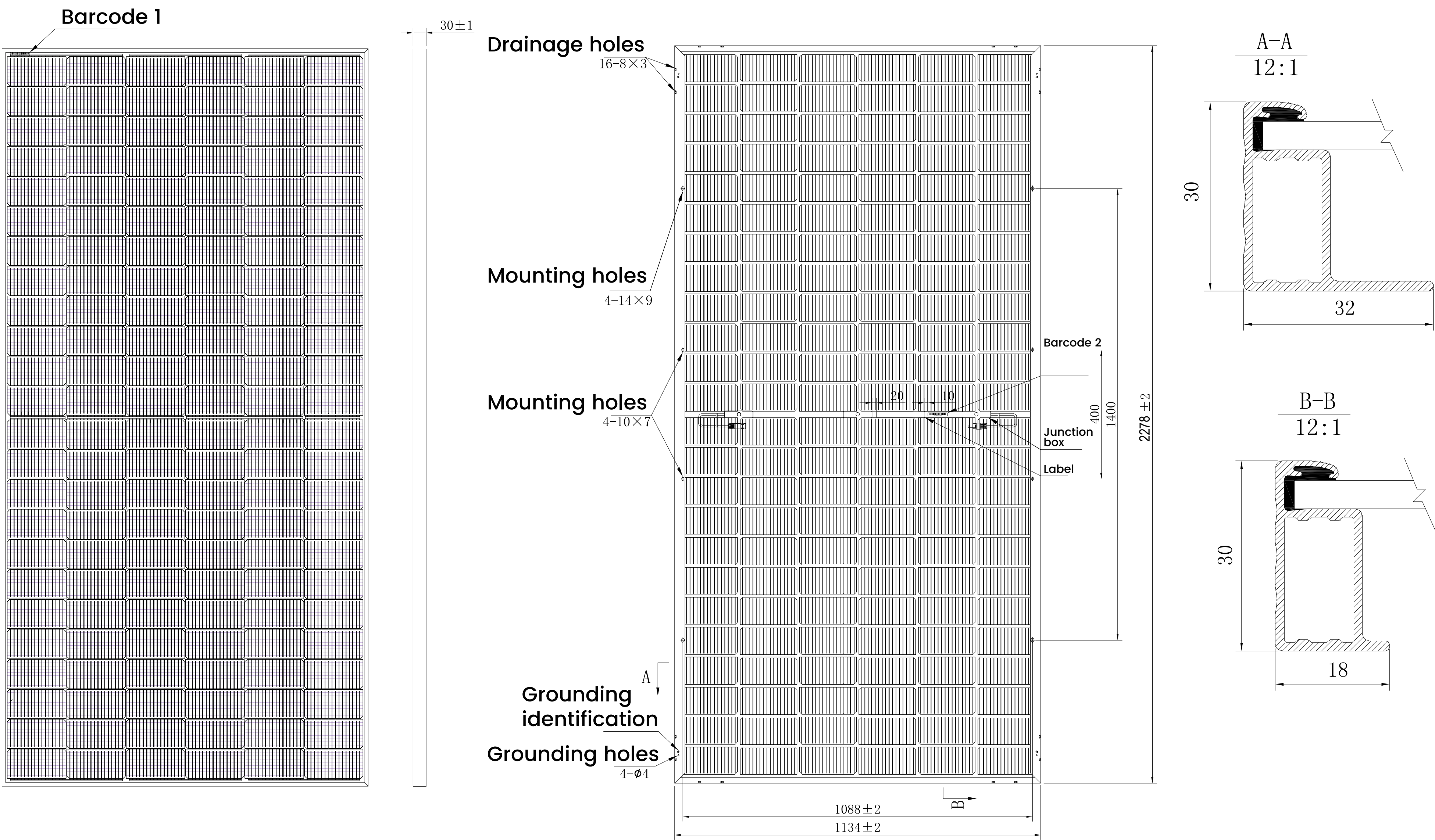
Maximum Efficiency
23.02%



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AURIGA

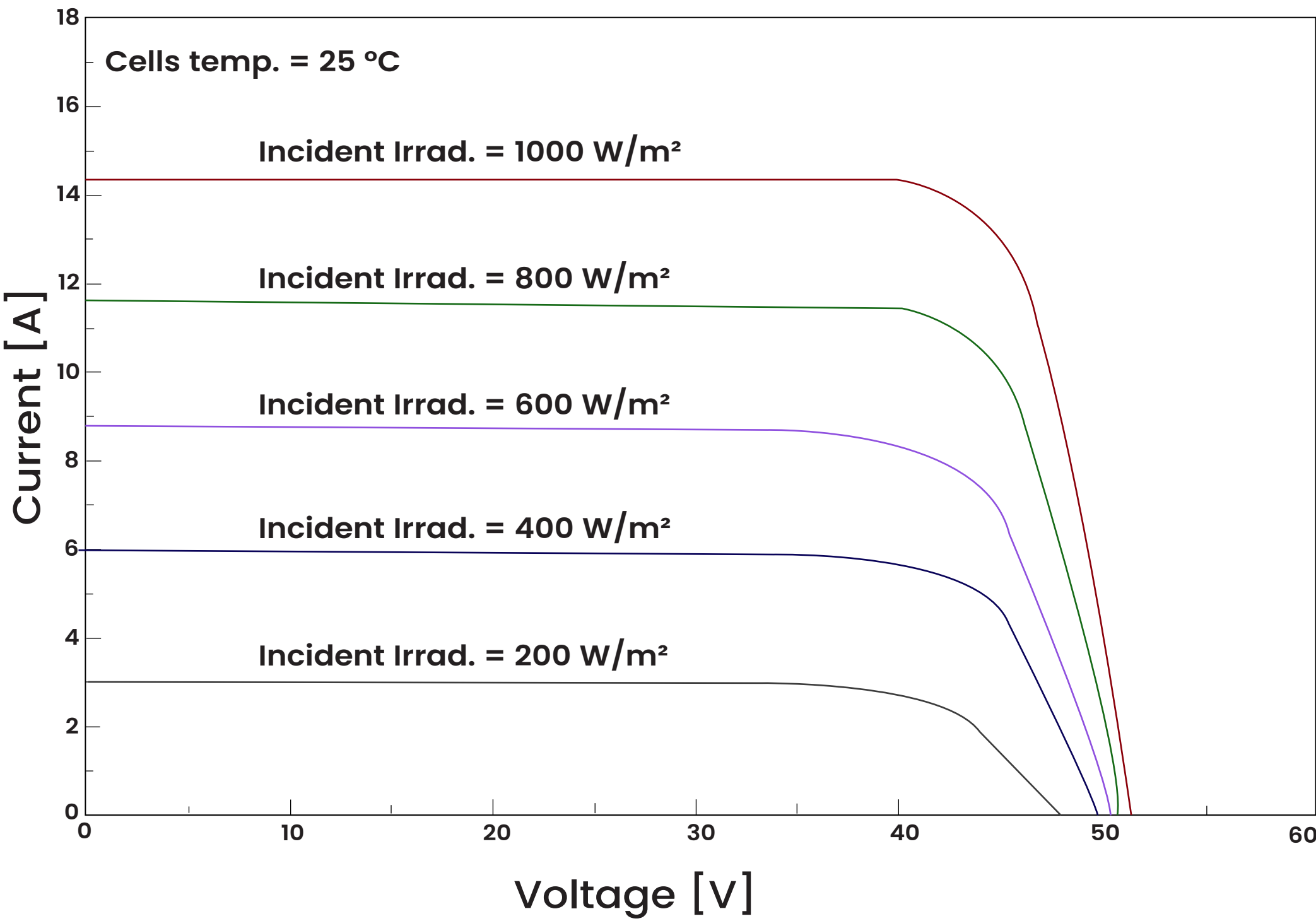
Dimensions of PV Module (mm)



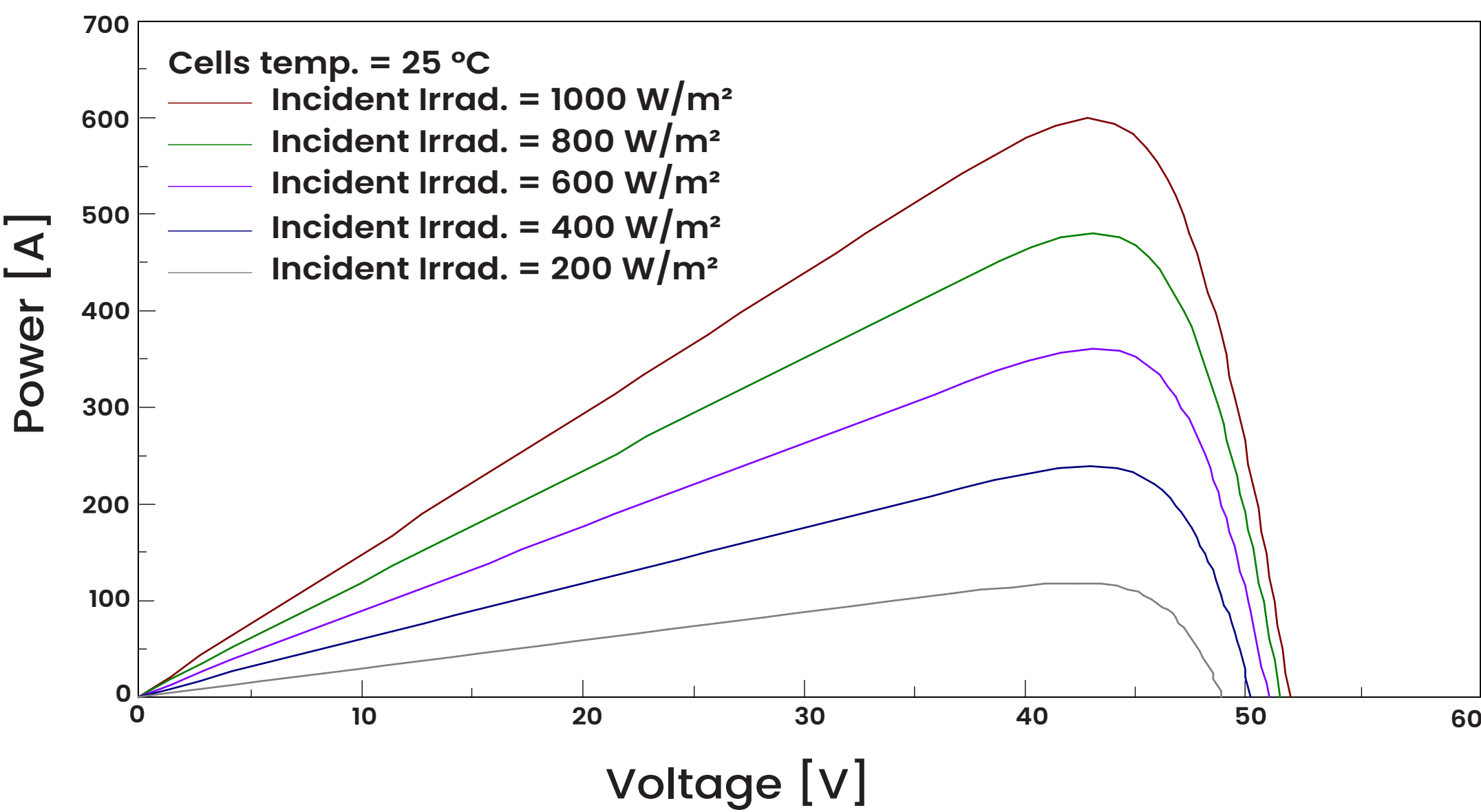
Front View

Back View

I-V Curves of PV Module (600W)



P-V Curves of PV Module (600W)



Electrical Characteristics STC*							
Nominal Power Watt Pmax(W)*	570	575	580	585	590	595	600
Maximum Power Voltage Vmp(V)	42.40	42.60	42.80	43.00	43.20	43.50	43.70
Maximum Power Current Imp(A)	13.45	13.50	13.56	13.61	13.66	13.71	13.76
Open Circuit Voltage Voc(V)	51.10	51.30	51.50	51.70	51.90	52.10	52.30
Short Circuit Current Isc(A)	14.23	14.29	14.35	14.41	14.46	14.51	14.56
Module Efficiency (%)	22.07	22.26	22.45	22.65	22.84	23.03	23.23

*The data above is for reference only and the actual data is in accordance with the practical testing
*STC (Standard Test Condition): Irradiance 1000W/m², Module Temperature 25±2°C, AM 1.5
*Measuring uncertainty: ±3%.

Mechanical Data	
Solar cells	N-type Monocrystalline
Cells orientation	144 [2x(12x2)]
Module dimension	2278×1134×30 mm (With Frame)
Weight	31.5±1.0 kg
Glass	2.0 mm+2.0mm, High Transmission, AR Coated Heat Strengthened Glass
Junction box	IP 68, 3 diodes
Cables	4 mm², 350 mm (With Connectors)
Connectors*	MC4-compatible

*Please refer to regional datasheet for specified connector

Electrical Characteristics NMOT*							
Maximum Power Pmax(Wp)	430.69	434.47	438.25	442.03	445.80	449.58	453.36
Maximum Power Voltage Vmp(V)	39.96	40.15	40.34	40.53	40.72	41.00	41.19
Maximum Power Current Imp(A)	10.77	10.81	10.85	10.89	10.93	10.97	11.01
Open Circuit Voltage Voc(V)	48.21	48.40	48.59	48.77	48.96	49.15	49.34
Short Circuit Current Isc(A)	11.49	11.54	11.58	11.63	11.67	11.71	11.75

*NMOT:Irradiance 800W/m²,Ambient Temperature 20°C,AM 1.5,Wind Speed 1m/s

Temperature Ratings	
NMOT	44°C ±2°C
Temperature coefficient of Pmax	(-0.30±0.03)%/°C
Temperature coefficient of Voc	-0.25%/°C
Temperature coefficient of Isc	0.046%/°C
Refer.Bifacial Factor	(80±10)%

*Remark:Do not connect Fuse in Combiner Box with two or more strings in parallel connection

Electrical Characteristics with 25% Rear Side Power Gain*							
Front power Pmax/W	570	575	580	585	590	595	600
Total power Pmax/W	713	719	725	731	738	744	750
Vmp/V(Total)	42.40	42.60	42.80	43.00	43.20	43.50	43.70
Imp/A(Total)	16.81	16.88	16.95	17.01	17.08	17.14	17.20
Voc/V(Total)	51.10	51.30	51.50	51.70	51.90	52.10	52.30
Isc/A(Total)	17.79	17.86	17.94	18.01	18.08	18.14	18.20

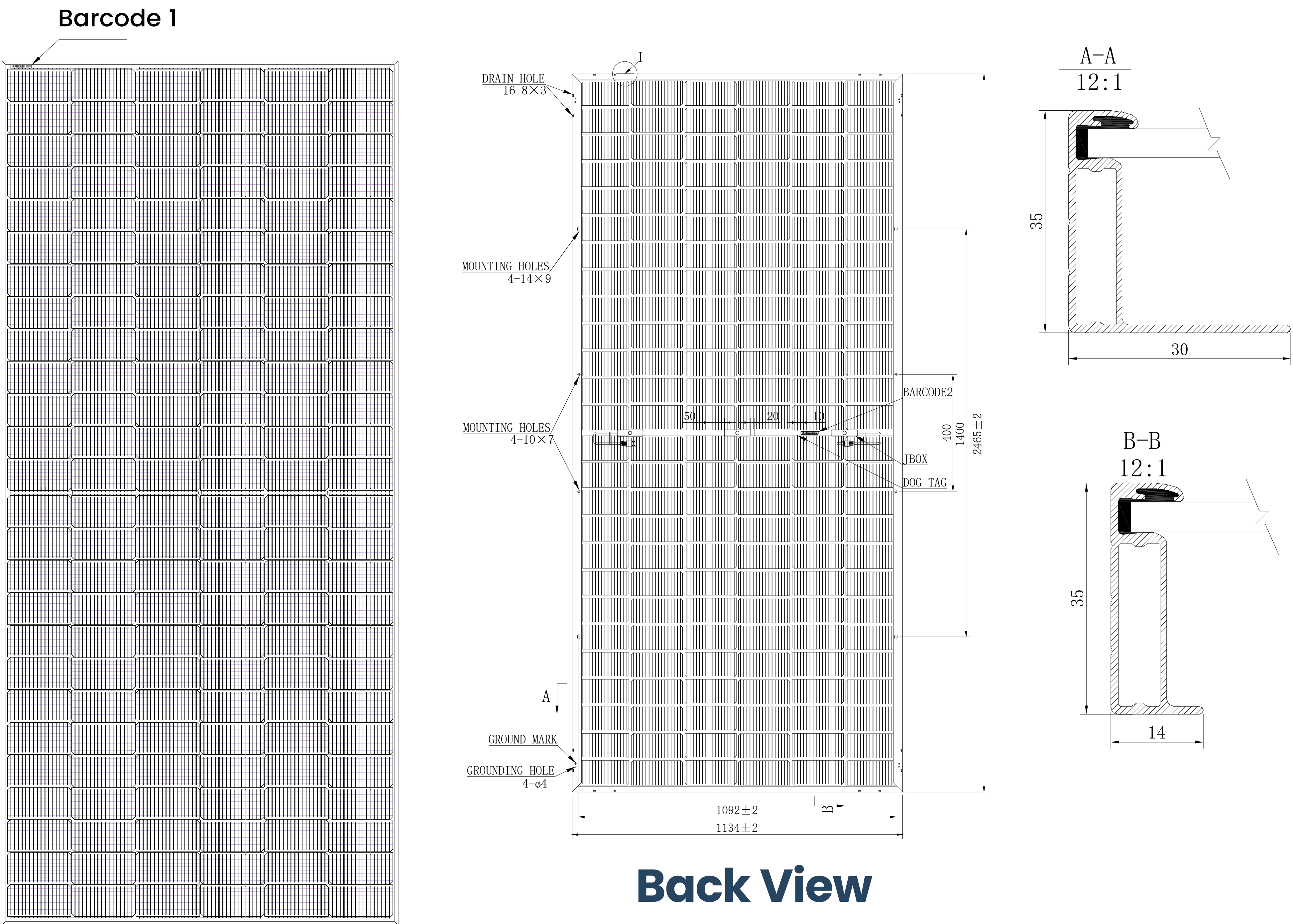
*Remark: Electrical data in this catalog do not refer to a single module and they are not part of the offer. They only serve for comparison among different module types.
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ALTAIR

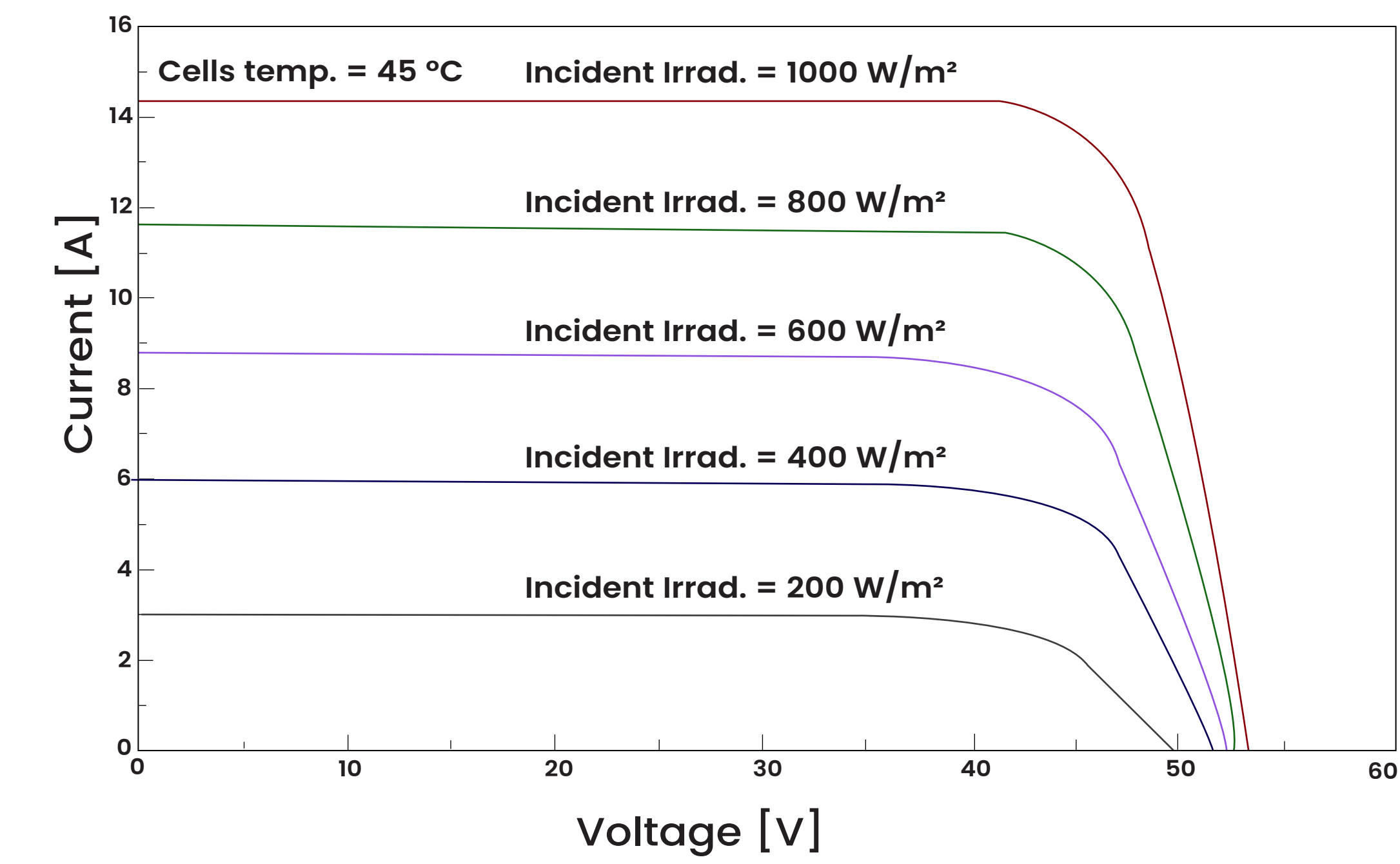
Dimensions of PV Module (mm)



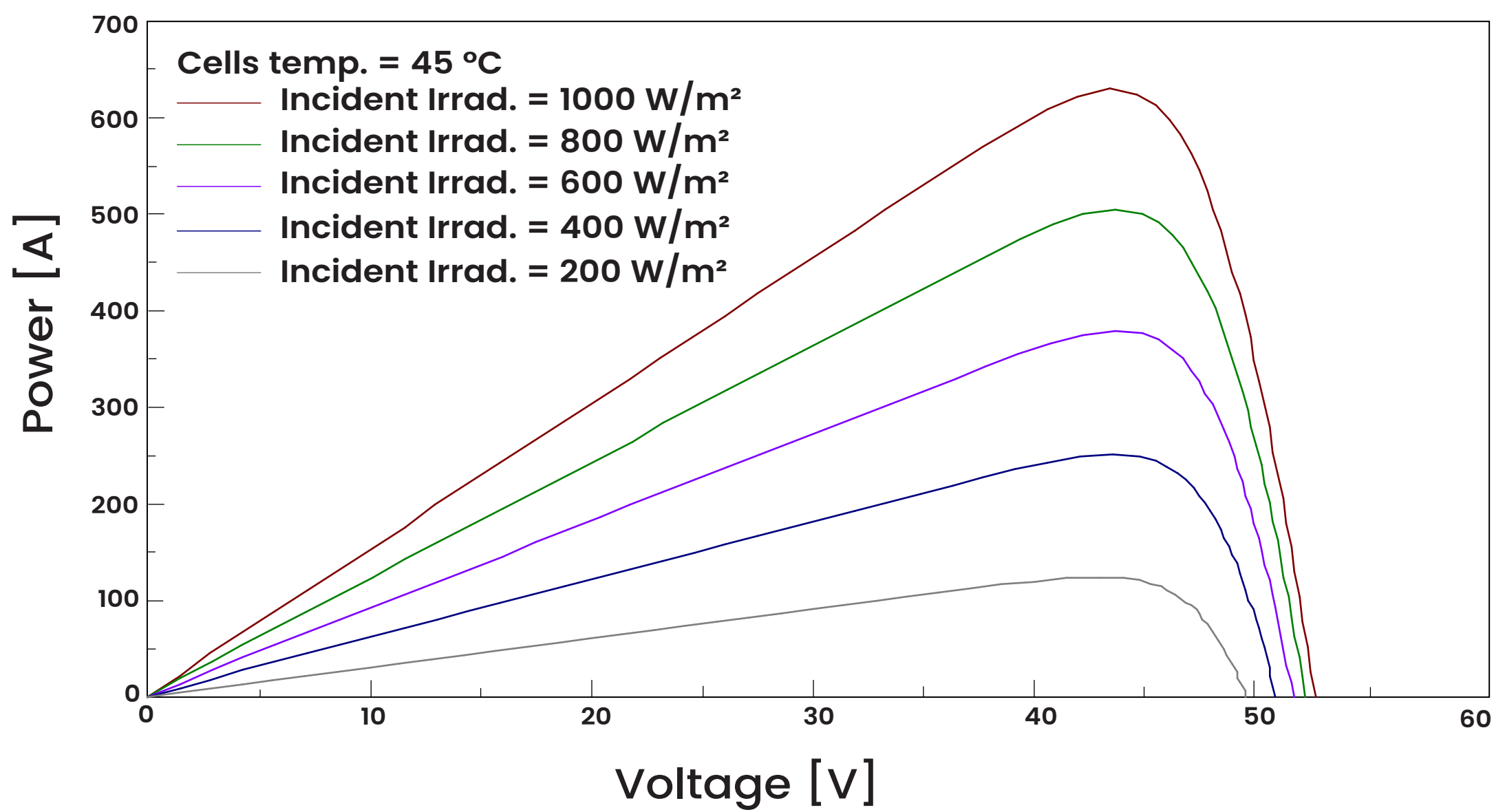
Back View

Front View

I-V Curves of PV Module (645W)



P-V Curves of PV Module (645W)



Electrical Characteristics STC*							
Nominal Power Watt Pmax(W)*	615	620	625	630	635	640	645
Maximum Power Voltage Vmp(V)	45.80	46.00	46.20	46.40	46.60	46.80	47.00
Maximum Power Current Imp(A)	13.43	13.48	13.53	13.58	13.63	13.68	13.73
Open Circuit Voltage Voc(V)	55.40	55.60	55.80	56.00	56.20	56.40	56.60
Short Circuit Current Isc(A)	14.19	14.25	14.31	14.37	14.43	14.49	14.55
Module Efficiency (%)	22.00	22.18	22.36	22.54	22.72	22.90	23.07

*The data above is for reference only and the actual data is in accordance with the practical testing
*STC (Standard Test Condition): Irradiance 1000W/m², Module Temperature 25±2°C, AM 1.5
*Measuring uncertainty: ±3%.

Mechanical Data	
Solar cells	N-type Monocrystalline
Cells orientation	156 [2x(13x6)]
Module dimension	2465×1134×35 mm (With Frame)
Weight	34.5±1.0 kg
Glass	2.0 mm+2.0mm, High Transmission, AR Coated Tempered Glass
Junction box	IP 68, 3 diodes
Cables	4 mm² ,350 mm (With Connectors)
Connectors*	MC4-compatible

*Please refer to regional datasheet for specified connector

Electrical Characteristics NMOT							
Maximum Power Pmax(Wp)	464.69	468.47	472.25	476.03	479.81	483.58	487.36
Maximum Power Voltage Vmp(V)	43.17	43.36	43.54	43.73	43.92	44.11	44.30
Maximum Power Current Imp(A)	10.75	10.79	10.83	10.87	10.91	10.95	10.99
Open Circuit Voltage Voc(V)	52.26	52.45	52.64	52.83	53.02	53.21	53.40
Short Circuit Current Isc(A)	11.46	11.50	11.55	11.60	11.65	11.70	11.75

*NMOT:Irradiance 800W/m²,Ambient Temperature 20°C,AM 1.5,Wind Speed 1m/s

Temperature Ratings	
NMOT	44°C ±2°C
Temperature coefficient of Pmax	(-0.30±0.03)%/°C
Temperature coefficient of Voc	-0.25%/°C
Temperature coefficient of Isc	0.046%/°C

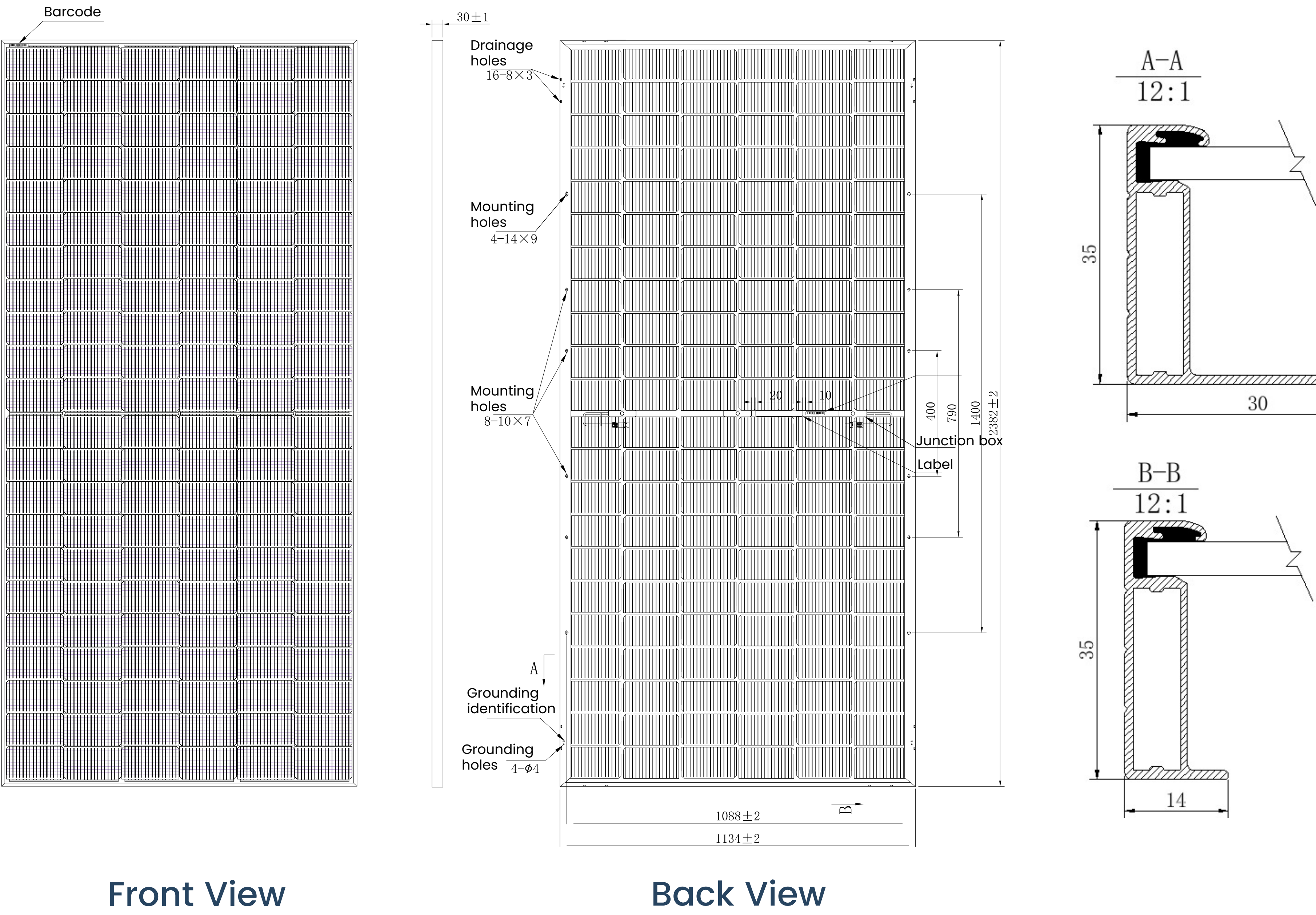
*Remark: Do not connect Fuse in Combiner Box with two or more strings in parallel connection

Electrical Characteristics (Rear Power Gain)							
5%	Maximum Power: Pmax (W)	645.75	651	656.25	661.5	666.75	672
	Module Efficiency(%)	23.10	23.29	23.48	23.66	23.85	24.04
15%	Maximum Power: Pmax(W)	676.5	682	687.5	693	698.5	704
	Module Efficiency(%)	24.20	24.40	24.59	24.79	24.99	25.19
25%	Maximum Power: Pmax(W)	768.75	775	781.25	787.5	793.75	800
	Module Efficiency(%)	27.50	27.73	27.95	28.17	28.40	28.62

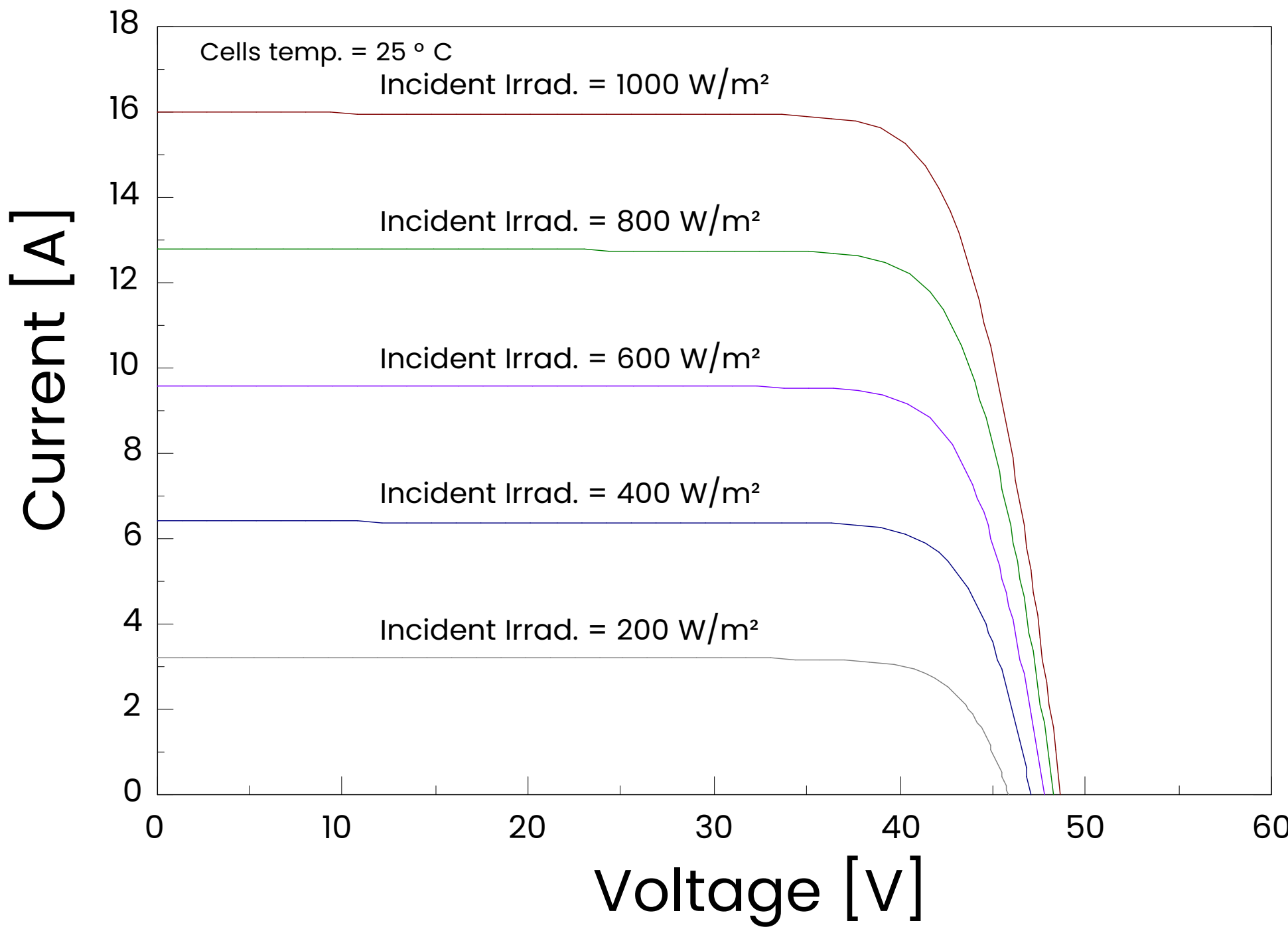
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SIRIUS

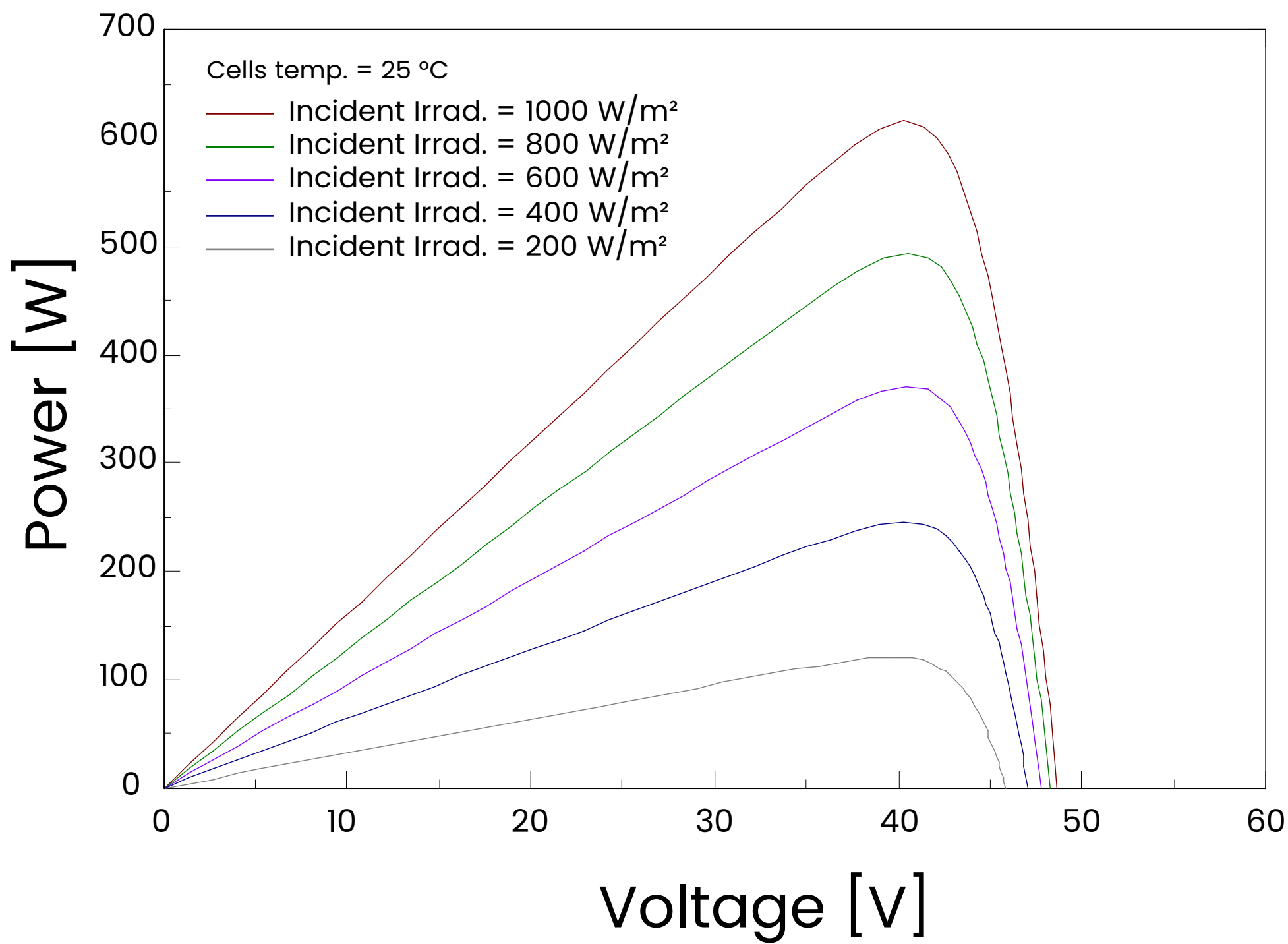
Dimensions of PV Module (mm)



I-V CURVES OF PV MODULE (640W)



P-V CURVES OF PV MODULE (640W)



Electrical Characteristics | STC*

Nominal Power Watt Pmax (W)*	610	615	620	625	630	635	640
Maximum Power Voltage (Vmp), V	40.60	40.80	41.00	41.20	41.40	41.60	41.80
Maximum Power Current (Imp), A	15.03	15.08	15.13	15.17	15.22	15.27	15.32
Open Circuit Voltage (Voc), V	48.50	48.70	48.90	49.10	49.30	49.50	49.70
Short Circuit Current (Isc), A	15.95	16.00	16.05	16.09	16.14	16.19	16.24
Module Efficiency %	22.58	22.77	22.95	23.14	23.32	23.51	23.69

*The data above is for reference only and the actual data is in accordance with the practical testing

*STC (Standard Test Condition): Irradiance 1000W/m², Module Temperature 25±2°C, AM 1.5

*Measuring uncertainty: ±3%.

Electrical Characteristics | NMOT*

Maximum Power Pmax (Wp)	462.40	466.10	471.30	475.20	478.90	482.70	486.50
Maximum Power Voltage (Vmpp), V	37.80	38.00	38.04	38.50	38.70	38.90	39.10
Maximum Power Current (Imp), A	12.22	12.26	12.29	12.33	12.37	12.41	12.445
Open Circuit Voltage (Voc), V	45.80	46.00	46.30	46.50	46.70	46.90	47.10
Short Circuit Current (Isc), A	12.87	12.91	12.95	12.98	13.02	13.06	13.10

*NMOT: Irradiance 800W/m², Ambient Temperature 20°C, AM 1.5, Wind Speed 1m/s

Electrical Characteristics | (Rear Power Gain)

5%	Maximum Power: Pmax (W)	641	646	651	656	662	667	672
	Module Efficiency(%)	23.69	23.89	24.08	24.27	24.47	24.66	24.86
15%	Maximum Power: Pmax(W)	702	707	713	719	725	730	736
	Module Efficiency(%)	25.95	26.16	26.37	26.59	26.80	27.01	27.22
25%	Maximum Power: Pmax(W)	763	769	775	781	788	794	800
	Module Efficiency(%)	28.20	28.44	28.67	28.90	29.13	29.36	29.59

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Mechanical Data

Solar Cells	N-type Monocrystalline, Rectangular cells
Cells Orientation	132 [2x(11x6)]
Module Dimension	2382x1134x35 mm (With Frame)
Weight	33.0 ± 1.0 Kg
Glass	2.0 mm+2.0 mm, High Transmission, AR Coated Heat
Junction Box	IP 68, 3 diodes
Cables	4 mm², 350 mm (With Connectors)
Connectors*	MC4-compatible

*Please refer to regional datasheet for specified connector

Temperature Ratings

NMOT	44° C ± 2° C
Temperature coefficient of Pmax	(- 0.28 ± 0.028) %/°C
Temperature coefficient of Voc	- 0.23%/°C
Temperature coefficient of Isc	0.045%/°C
Refer. Bifacial Factor	(80±10)%

*Remark: Do not connect Fuse in Combiner Box with two or more strings in parallel connection

Working Conditions

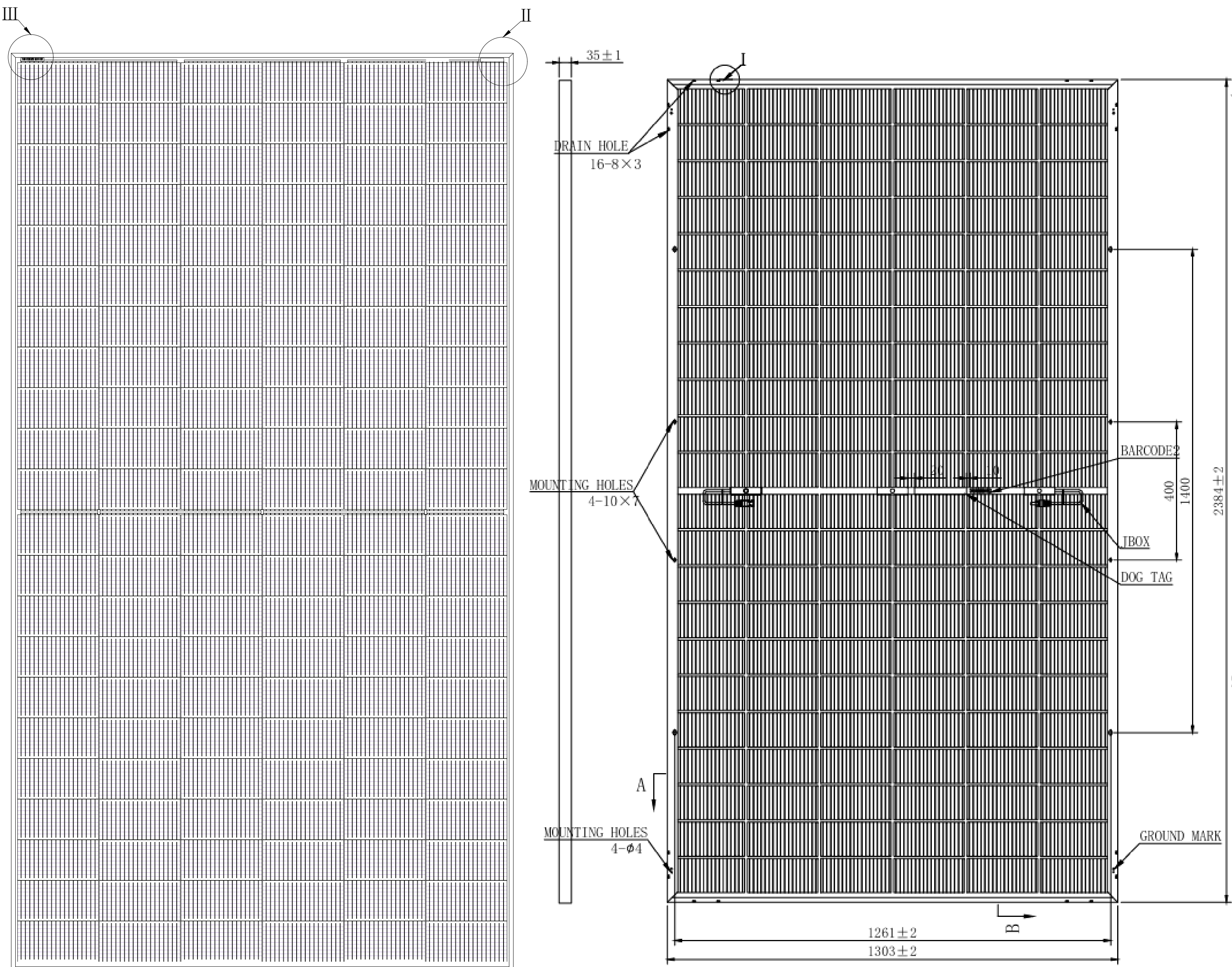
Maximum system voltage	1500 V DC
Operating temperature	-40°C ~ + 85 °C
Maximum series fuse	35 A
Front Side Maximum Static Loading	Upto 5400Pa
Rear Side Maximum Static Loading	Upto 2400Pa



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AQUILA

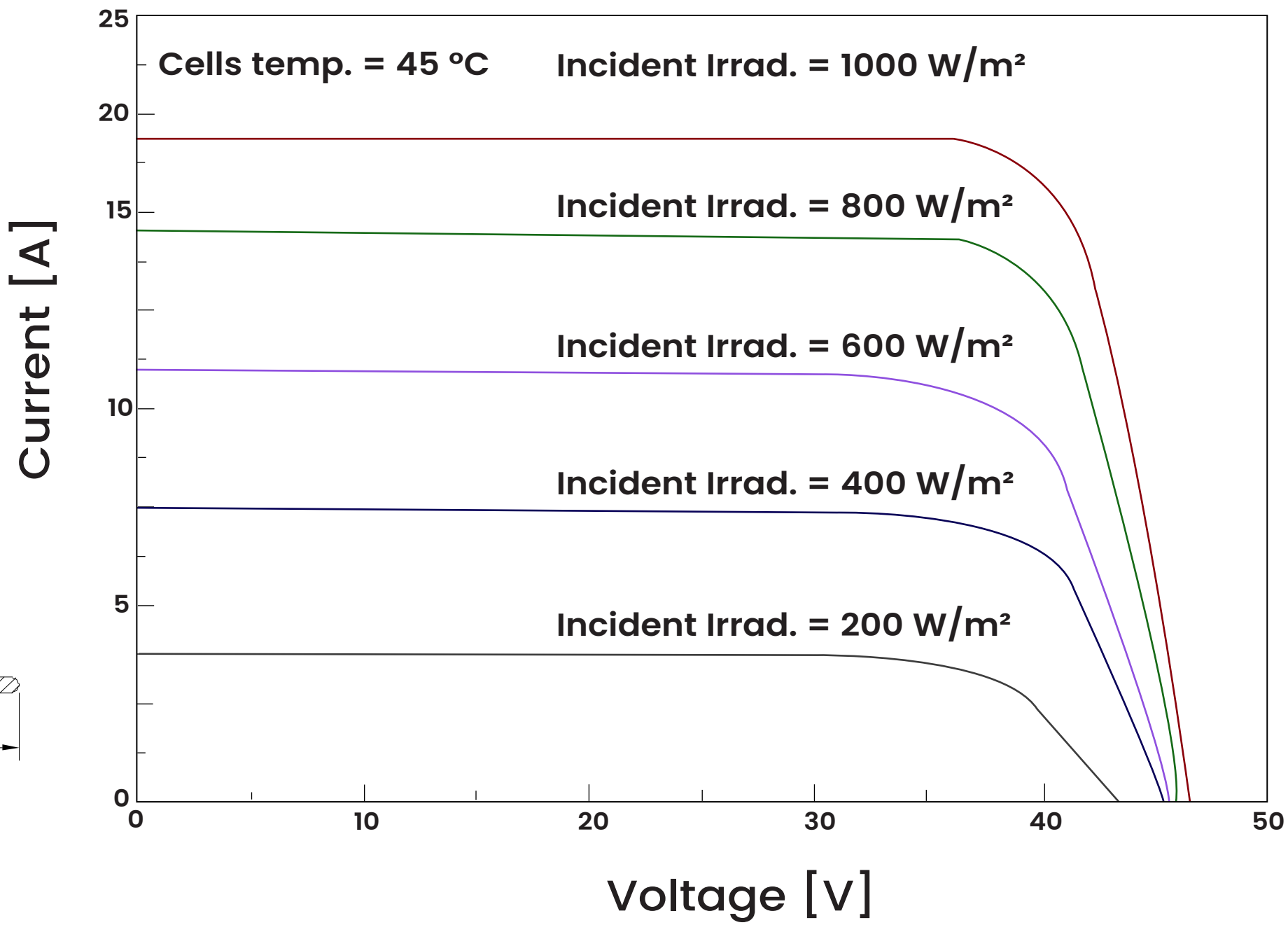
Dimensions of PV Module (mm)



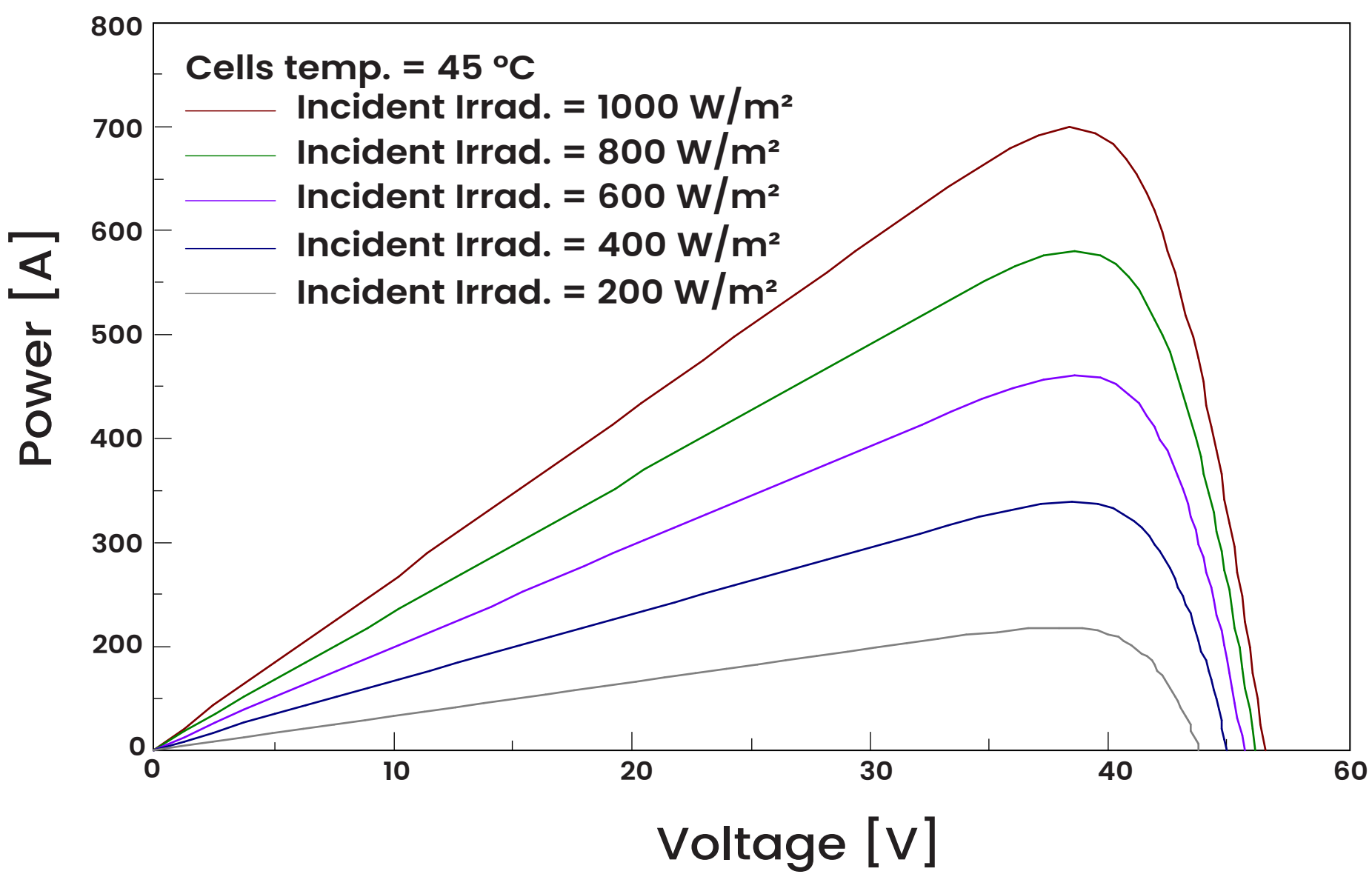
Back View

Front View

I-V Curves of PV Module (715W)



P-V Curves of PV Module (715W)



Electrical Characteristics STC*							
Nominal Power Watt Pmax(W)*	685	690	695	700	705	710	715
Maximum Power Voltage Vmp(V)	39.89	40.09	40.29	40.49	40.68	40.90	41.12
Maximum Power Current Imp(A)	17.18	17.21	17.25	17.29	17.33	17.36	17.40
Open Circuit Voltage Voc(V)	47.98	48.18	48.38	48.58	48.77	48.85	48.90
Short Circuit Current Isc(A)	18.20	18.23	18.27	18.31	18.36	18.37	18.39
Module Efficiency (%)	22.05	22.21	22.37	22.53	22.70	22.86	23.02

*The data above is for reference only and the actual data is in accordance with the practical testing
*STC (Standard Test Condition): Irradiance 1000W/m², Module Temperature 25±2°C, AM 1.5
*Measuring uncertainty: ±3%.

Electrical Characteristics NMOT							
Maximum Power Pmax(Wp)	517.59	521.36	525.14	528.92	532.70	536.48	540.25
Maximum Power Voltage Vmp(V)	37.60	37.80	38.00	38.20	38.40	38.60	38.80
Maximum Power Current Imp(A)	13.77	13.80	13.83	13.85	13.87	13.90	13.93
Open Circuit Voltage Voc(V)	45.26	45.45	45.64	45.83	46.01	46.09	46.13
Short Circuit Current Isc(A)	14.69	14.72	14.75	14.78	14.82	14.83	14.85

*NMOT: Irradiance 800W/m², Ambient Temperature 20°C, AM 1.5, Wind Speed 1m/s

Electrical Characteristics (Rear Power Gain)								
5%	Maximum Power: Pmax (W)	719.25	724.5	729.75	735	740.25	745.5	750.75
	Module Efficiency(%)	23.15	23.32	23.49	23.66	23.83	24.00	24.17
15%	Maximum Power: Pmax(W)	753.5	759	764.5	770	775.5	781	786.5
	Module Efficiency(%)	24.26	24.43	24.61	24.79	24.96	25.14	25.32
25%	Maximum Power: Pmax(W)	822	828	834	840	846	852	858
	Module Efficiency(%)	26.46	26.66	26.85	27.04	27.23	27.43	27.62

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Mechanical Data	
Solar cells	TOPCon
Cells orientation	132 [2×(11×6)]
Module dimension	2384×1303×35 mm (With Frame)
Weight	38.5±1.0 kg
Glass	2.0 mm+2.0mm, High Transmission, AR Coated Tempered Glass
Junction box	IP 68, 3 diodes
Cables	4.0 mm² ,360 mm (With Connectors)
Connectors*	MC4-compatible

*Please refer to regional datasheet for specified connector

Temperature Ratings	
NMOT	41°C ±3°C
Temperature coefficient of Pmax	-0.29%/°C
Temperature coefficient of Voc	-0.25%/°C
Temperature coefficient of Isc	0.05%/°C

*Remark: Do not connect Fuse in Combiner Box with two or more strings in parallel connection

Working conditions	
Maximum system voltage	1500 V DC
Operating temperature	-40°C~+85°C
Maximum series fuse	35 A
Front Side Maximum Static Loading	Up to 5400Pa
Rear Side Maximum Static Loading	Up to 2400Pa



Solarworld
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Corporate Headquater

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Manufacturing Unit

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Bahadarpur Saini, Near Patanjali
Yogpeeth, Tehsil Roorkee, Haridwar,
Uttarakhand-249401