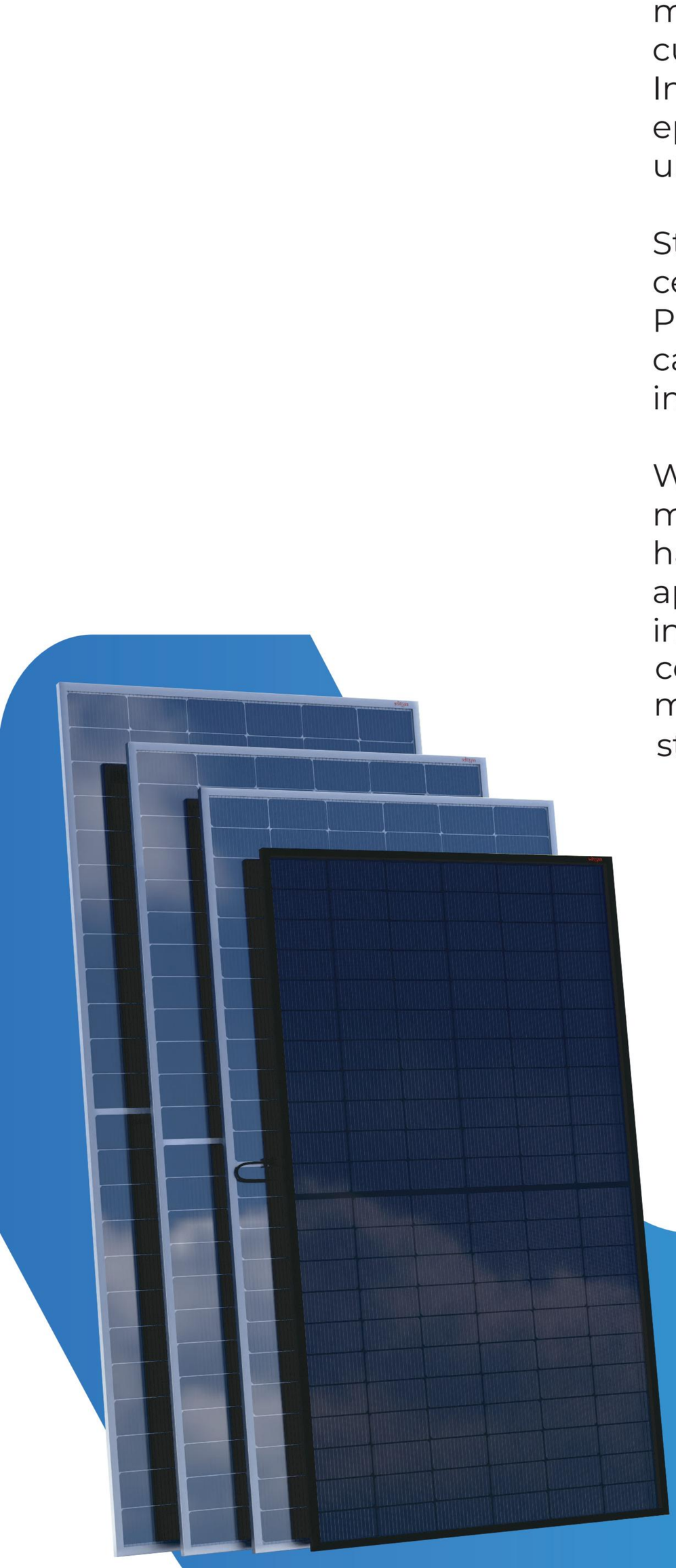
Working collaboratively with engineers from Germany, US and India we are pleased to introduce adityaa photovoltaic modules. Engineered using P-Type Mono Perc cells, the cutting-edge N-Type TOPCON and Heterojunction with Intrinsic Thin layer (HJT) cell technology, ADITYAA panels epitomize peak performance, unwavering reliability, and unparalleled efficiency.

Strategically partnering with world class OEM module and cell manufacturers in US / INDONESIA we offer PERC and the next generation N-TYPE TOPCON panels catering to Utility, Commercial and Residential scale implementations.

With our intensely scrutinized and selective OEM manufacturing partners, between USA & Indonesia we have combined leased dedicated production lines of approximately 800MW annually of which 100MW lies in USA. With dedicated production lines we can better control quality and panel efficiency. All our OEM manufacturing partners adhere to our strict quality standards and are:

- ISO Certified.
- Fully automated manufacturing with robotic assembly technology.
- Panels are UL/CE certified for US market, TUV certified for Europe / MENA markets.
- Partnered with Ariel Green reinsurance for US Market & Partnered with MUNICH RE reinsurance for Europe Market, single shipments of 2MW and above for utility scale implementations.
- Are FEOC Free/UFLPA compliant and provide full traceability of inputs.



PHOTOVOLTAIC MODULES

QUANTUM Series

FEOC FREE



590W N-Type TOPCon
Domestic Content

ADUS-5-SERIES-NTB-144-590

HALF-CELL Black N-Type TOPCon
Bifacial Double Glass Monocrystalline

585-600W
POWER RANGE

23.22%
MAXIMUM EFFICIENCY

0.4%
YEARLY DEGRADATION

Product Warranty

15 YEARS PRODUCT WARRANTY

30 YEARS OUTPUT GUARANTEE

Certifications and Standards

ISO 14001
ISO 9001
ISO45001

Key Features

Best Levelized Cost of Energy
Lower total cost per unit of electricity generated over the panel's entire lifetime, making solar energy more economically competitive with other power sources.

Improved Low-Light Performance
More power output in weak light condition, such as haze,cloudy, and early morning.

Adapt To Harsh Outdoor Environment
The panel maintains its efficiency and power output even when operating in hot conditions, preventing the performance losses that typically occur as panel temperatures rise.

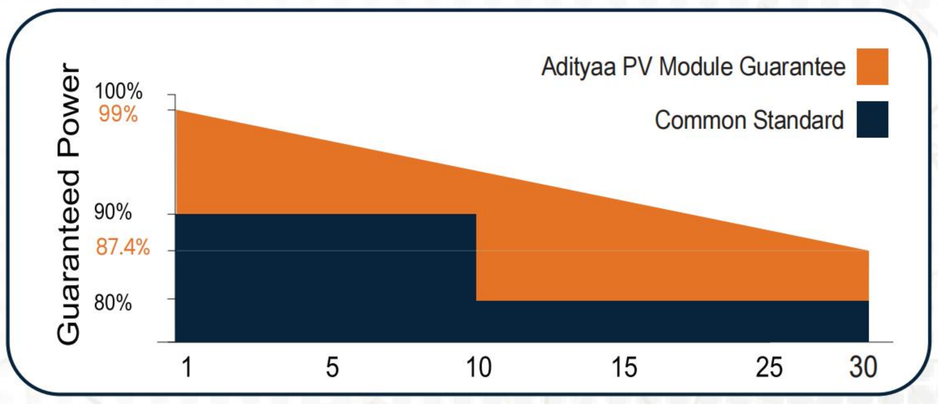
Anti PID
Ensured PID resistance through the quality control of cell manufacturing process and raw materials.

Exellent Bifacial Performance
Up to 15% additional power gain from back side depending on albedo.

USE CASE

Commercial

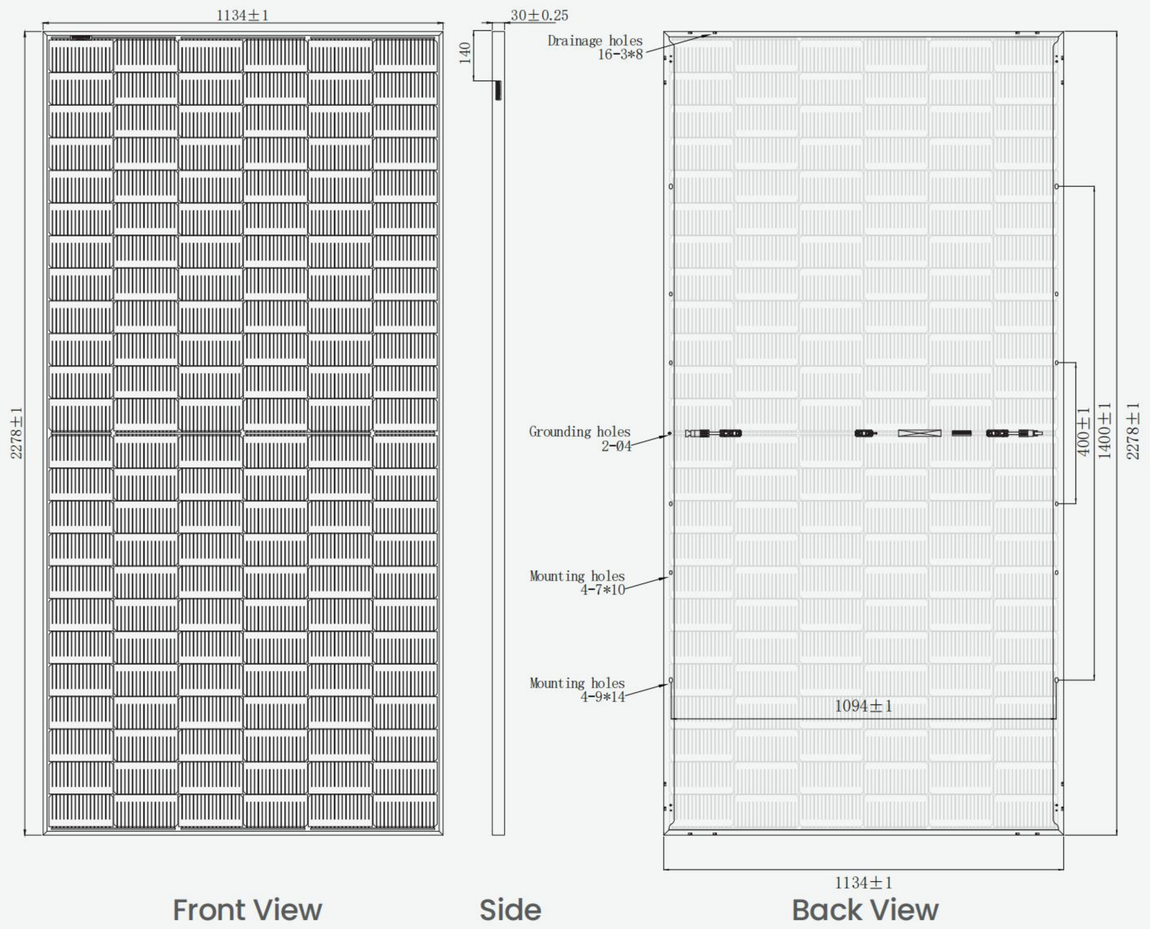
Utility



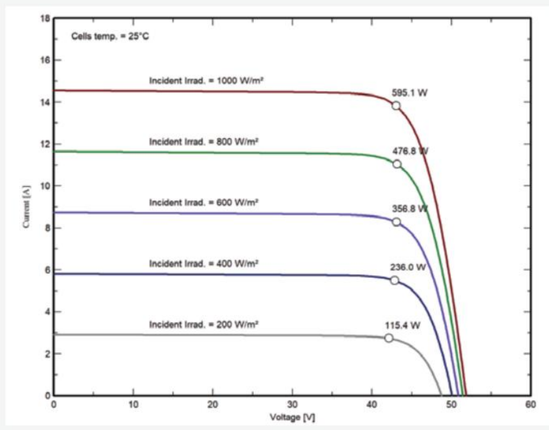
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ADUS-5-SERIES-NTB-144-590

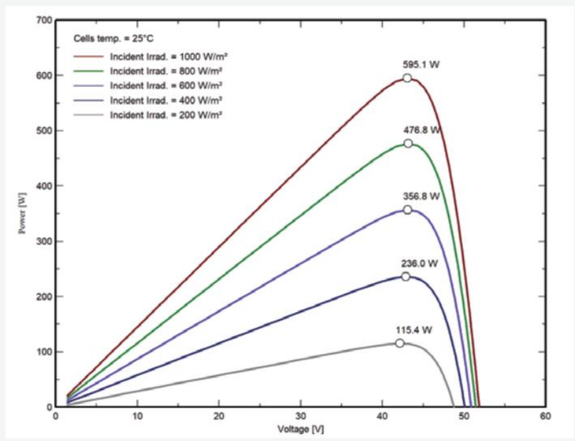
DIMENSIONS OF PV MODULE(mm)



I-V CURVES OF PV MODULE(585W)



P-V CURVES OF PV MODULE(585W)



TECHNICAL SPECIFICATIONS

PV Module Model	ADUS-5-SERIES-NTB-144-600			
ELECTRICAL CHARACTERISTICS | STC*				
Nominal Power Watt Pmax(W)*	585	590	595	600
Maximum Power Voltage Vmp(V)	42.72	42.87	43.03	43.18
Maximum Power Current Imp(A)	13.7	13.77	13.83	13.90
Open Circuit Voltage Voc(V)	51.58	51.7	51.84	51.97
Short Circuit Current Isc(A)	14.41	14.48	14.55	14.62
Module Efficiency (%)	22.64	22.83	23.02	23.22

*The data above is for reference only and the actual data is in accordance with the pratical testing
*STC (Standard Test Condition): Irradiance 1000W/m², Module Temperature 25±2℃, AM 1.5
*Measuring uncertainity: ±3%, all the electrical characteristics such as Power, Im, Vm and FF are within ±3% tolerance.

MECHANICAL DATA	
Solar cells	N-type Monocrystalline
Cells orientation	144 (6 X 24)
Module dimension	2278x1134x30mm (with frame)
Weight	31kgs
Glass	2.0 mm+2.0mm, High Transmission, AR Coated Heat Strengthened Glass
Junction box	IP 68，3 diodes
Cables	4 mm², Staubli MC4 , Line length 1300mm/customized

*Please refer to regional datasheet for specified connector

ELECTRICAL CHARACTERISTICS | NMOT*				
Maximum Power Pmax(Wp)	437.30	441.0	444.60	448.4
Maximum Power Voltage Vmp(V)	39.90	40.00	40.20	40.30
Maximum Power Current Imp(A)	10.96	11.02	11.07	11.13
Open Circuit Voltage Voc(V)	48.30	48.40	48.50	48.70
Short Circuit Current Isc(A)	11.61	11.67	11.72	11.78

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

TEMPERATURE RATINGS	
NMOT	45℃ ±2℃
Temperature coefficient of Pmax	(-0.30±0.03)%/℃
Temperature coefficient of Voc	-0.25%/℃
Temperature coefficient of Isc	0.046%/℃

WORKING CONDITIONS	
Maximum system voltage	1500 V DC
Operating temperature	-40℃~+85℃
Maximum series fuse	30A
Front Side Maximum Static Loading	Up to 5400Pa
Rear Side Maximum Static Loading	Up to 2400Pa

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

ELECTRICAL CHARACTERISTICS WITH 15% REAR SIDE POWER GAIN*					
Bifacial Gain	Measurement	585	590	595	600
	Maximum Power (Pmax/W)	672.75	678.5	684.25	690
15%	Maximum Power Voltage Vmp(V)	42.72	42.87	43.03	43.18
	Maximum Power Current Imp(A)	15.75	15.83	15.90	15.98
	Open Circuit Voltage Voc(V)	51.58	51.70	51.84	51.97
	Short Circuit Current Isc(A)	16.57	16.65	16.73	16.81

*Bifacial Gain: The additional gain from the back side compared to the power of the front side at the standard test condition. It depends on mounting (structure, height, tilt angle etc.) and albedo of the ground.

PACKAGING CONFIGURATION *	
Piece/Box	36
Piece/Container(40'HQ)	720
Pallet /Container(40'HQ)	20

*Customized packaging is available upon request.
*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.
*Caution:Please be kindly advised that PV modules should be handled and installed by qualified people who have professional skills and please carefully read the safety and installation instructions before using our PV modules.
*Information and data specs are accurate at the time of publication. Check with seller for any changes to data specs.

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445W N-Type TOPCon PV Module

ADIDN-4-SERIES-NTB-108-445

HALF-CELL Black N-Type TOPCon
Bifacial Double Glass Monocrystalline PV Module

420-445W
POWER RANGE

22.79%
MAXIMUM EFFICIENCY

0.4%
YEARLY DEGRADATION

Product Warranty

15 YEARS PRODUCT WARRANTY

30 YEARS OUTPUT GUARANTEE

Certifications and Standards

ISO 14001
ISO 9001
ISO45001

Key Features

Excellent Cells Efficiency
MBB technology reduce the distance between busbars and finger grid line which is benefit to power increase.

Better Weak Illumination Response
More power output in weak light condition, such as haze,cloudy, and early morning.

Adapt To Harsh Outdoor Environment
Resistant to harsh environments such as salt, ammonia, sand, high temperature and high humidity environment. Snow loading: 5400Pa & Wind Loading: 2400Pa

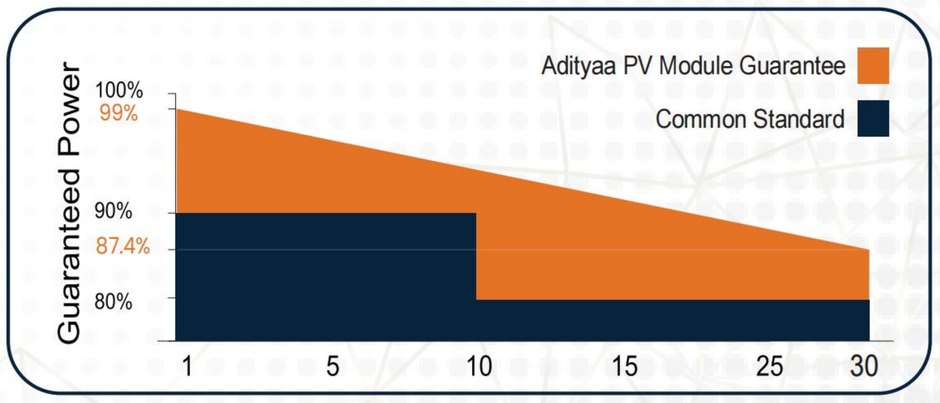
Anti PID
Ensured PID resistance through the quality control of cell manufacturing process and raw materials.

Bifacial Technology
Up to 20% additional power gain from back side depending on albedo. Bifacial factor of 80±5%

USE CASE

Residential

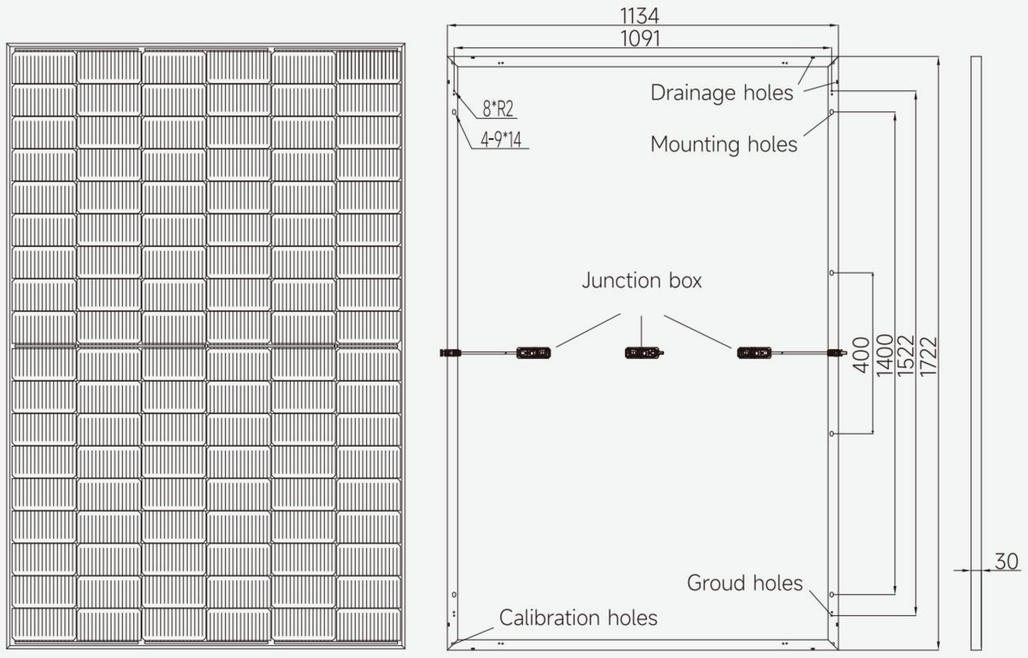
Commercial



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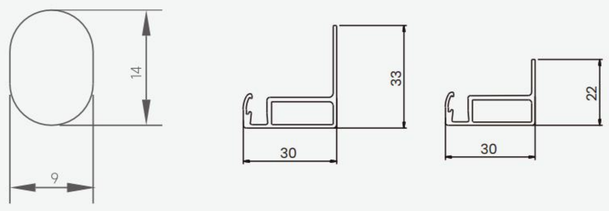
ADIDN-4-SERIES-NTB-108-445

DIMENSIONS OF PV MODULE(mm)



Front View

Back View



Tolerance

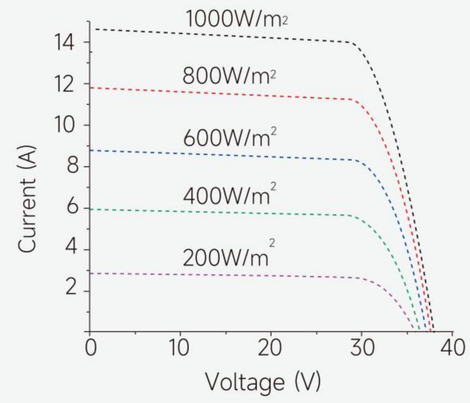
Length: ±2mm

Width: ±2mm

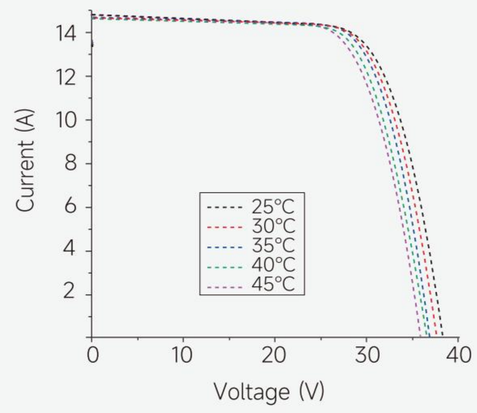
Height: ±1mm

Hole Pitch: ±2mm

I-V CURVES OF PV MODULE(445W)



I-V CURVES OF PV MODULE(445W)



TECHNICAL SPECIFICATIONS

PV Module Model	ADIDN-4-SERIES-NTB-108-445					
ELECTRICAL CHARACTERISTICS | STC*						
Nominal Power Watt Pmax(W)*	420	425	430	435	440	445
Maximum Power Voltage Vmp(V)	31.42	31.58	31.74	31.89	32.05	32.21
Maximum Power Current Imp(A)	13.37	13.46	13.55	13.64	13.73	13.82
Open Circuit Voltage Voc(V)	38.00	38.18	38.36	38.54	38.72	38.90
Short Circuit Current Isc(A)	14.16	14.26	14.36	14.46	14.56	14.66
Module Efficiency (%)	21.50	21.76	22.02	22.27	22.53	22.79

*The data above is for reference only and the actual data is in accordance with the pratical testing
*STC (Standard Test Condition): Irradiance 1000W/m², Module Temperature 25±2℃, AM 1.5
*Measuring uncertainity: ±3%, all the electrical characteristics such as Power, Im, Vm and FF are within ±3% tolerance.

MECHANICAL DATA	
Solar cells	N-type Monocrystalline
Cells orientation	**108 (6 X 18)**
Module dimension	**1722x1134x30mm (with frame)**
Weight	**23.5kgs**
Glass	**2 mm, High Transmission**
Junction box	IP 68， 3 diodes
Cables	**4 mm², MC4 compatible**

*Please refer to regional datasheet for specified connector

ELECTRICAL CHARACTERISTICS | NMOT*						
Maximum Power Pmax(Wp)	315	319	323	326	329	332
Maximum Power Voltage Vmp(V)	29.28	29.46	29.61	29.69	29.77	29.86
Maximum Power Current Imp(A)	10.76	10.83	10.91	10.98	11.05	11.12
Open Circuit Voltage Voc(V)	36.20	36.38	36.56	36.74	36.92	37.10
Short Circuit Current Isc(A)	11.36	11.42	11.50	11.56	11.62	11.68

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

TEMPERATURE RATINGS	
NMOT	45℃ ±2℃
Temperature coefficient of Pmax	(-0.30±0.03)%/℃
Temperature coefficient of Voc	-0.25%/℃
Temperature coefficient of Isc	0.046%/℃
Refer.Bifacial Factor	(80±10)%

WORKING CONDITIONS	
Maximum system voltage	1500 V DC
Operating temperature	-40℃~+85℃
Maximum series fuse	25 A
Front Side Maximum Static Loading	Up to 5400Pa
Rear Side Maximum Static Loading	Up to 2400Pa

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

ELECTRICAL CHARACTERISTICS WIT DIFFERENT REAR SIDE POWER GAIN*							
Bifacial Gain	**Measurement**	420	425	430	435	440	445
	Maximum Power (Pmax/W)	462	467.5	473	478.5	484	489.5
10%	**Module Efficiency %**	23.65	23.94	24.22	24.50	24.78	25.06
	Maximum Power (Pmax/W)	504	510	516	522	528	534
20%	**Module Efficiency %**	25.81	26.11	26.42	26.73	27.03	27.34

*Bifacial Gain: The additional gain from the back side compared to the power of the front side at the standard test condition.
It depends on mounting (structure, height, tilt angle etc.) and albedo of the ground.

PACKAGING CONFIGURATION *	
Piece/Box	36
Piece/Container(40'HQ)	936

*Customized packaging is available upon request.
*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.
*Caution:Please be kindly advised that PV modules should be handled and installed by qualified people who have professional skills and please carefully read the safety and installation instructions before using our PV modules.
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