

**ARTIC
TECH**

Powered by 





15 Years
Product
Warranty

30 Years
Linear Power
Warranty

High Efficiency **TOPCon** Module

ATE-132-640

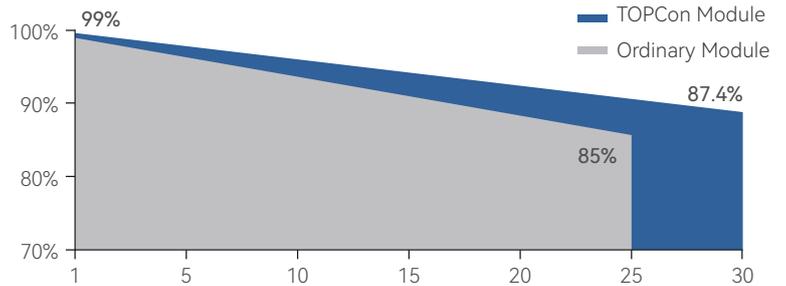
615W | 620W | 625W | 630W | 635W
640W | 645W | 650W

650W
Maximum
Power Output

23.25%
Maximum
Efficiency

85±5%
Bifaciality

Quality Assurance



Product Features



SMBB Half Cell
Multi-busbar half-cell design, higher module efficiency and power output



High Energy Yield
Maximum Module Efficiency up to 23.25% achieved by mature mass production TOPCon cell technology



M10 M10 Cell / Module
M10 size wafer, applicable to multiple scenarios



Better Warranty
Extremely low LID/PID in longer service life, less than 12.6% power degradation in 30 years



High Reliability
Certified mechanical performance up to 5400 Pa positive load and 2400 Pa negative load, with better protection against harsh weather



Higher Performance
Lower temperature coefficient and low operation temperature, resulting in better energy yield in all-weather

Certificates



JP-AC

Electrical Data(STC)

Model	ATE-132-615	ATE-132-620	ATE-132-620	ATE-132-630	ATE-132-6135	ATE-132-640	ATE-132-645	ATE-132-650
Pmax(Wp)	615	620	625	630	635	640	645	650
Voc(V)	55.41	55.56	55.71	55.86	56.01	56.16	56.31	56.46
Isc(A)	14.17	14.24	14.31	14.38	14.45	14.52	14.59	14.66
Vmpp(V)	45.67	45.78	45.91	46.04	46.17	46.30	46.43	46.56
Imp(A)	13.47	13.55	13.62	13.69	13.76	13.83	13.90	13.97
Efficiency	22.00%	22.18%	22.36%	22.54%	22.72%	22.90%	23.07%	23.25%

STC: AM1.5 Irradiance: 1000W/m², Temperature=25°C

Electrical Characteristics(NOCT)

Model	ATE-132-615	ATE-132-620	ATE-132-620	ATE-132-630	ATE-132-6135	ATE-132-640	ATE-132-645	ATE-132-650
Pmax(Wp)	462	466	470	474	479	482	487	492
Voc(V)	52.56	52.71	52.86	53.01	53.16	53.31	53.46	53.61
Isc(A)	11.36	11.43	11.49	11.56	11.62	11.68	11.74	11.80
Vmpp(V)	43.01	43.16	43.31	43.46	43.50	43.58	43.73	43.88
Imp(A)	10.76	10.82	10.87	10.93	11.03	11.08	11.14	11.20

αsc (%/K) : 0.045; βVoc (%/K) : -0.25; γPmp (%/K) : -0.29

AM1.5, irradiance: 800W/m², Temperature=25°C, Wind speed=1m/s

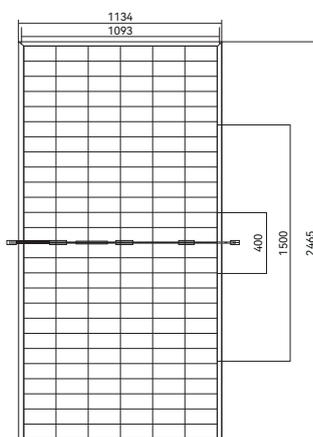
Mechanical Data

Cell	182mm All dimensions
Weight	35±0.5kg
Dimension	2465×1134×30mm
Cable	4mm ² , 300mm (customized length based on needs)
Frame	Anodized aluminum
Junction Box	IP68, 1500VDC, 3Diodes
Packaging configuration (40' Container; 17.5'Trailer)	576pcs/container; 720pcs/13'Trailer; 792pcs/17.5'Trailer

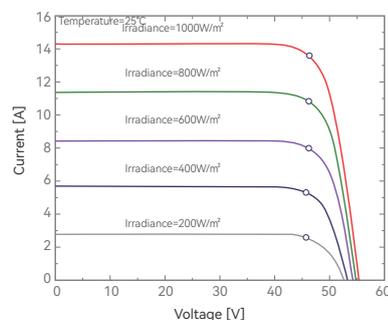
Working Condition

Maximum System Voltage	1500VDC
Operating Temperature	-40°C ~ +85°C
Maximum Fuse Rating	30A
Rear Side Mechanical Load	2400Pa
Front Side Mechanical Load	5400Pa
NOCT	44±2°C
Safety Rating	Class II
Grounding Electric Conductivity	< 0.1Ω

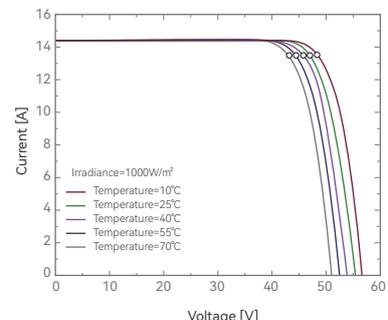
Dimensions (mm)



I-V Diagram



Different Irradiance



Different Temperature