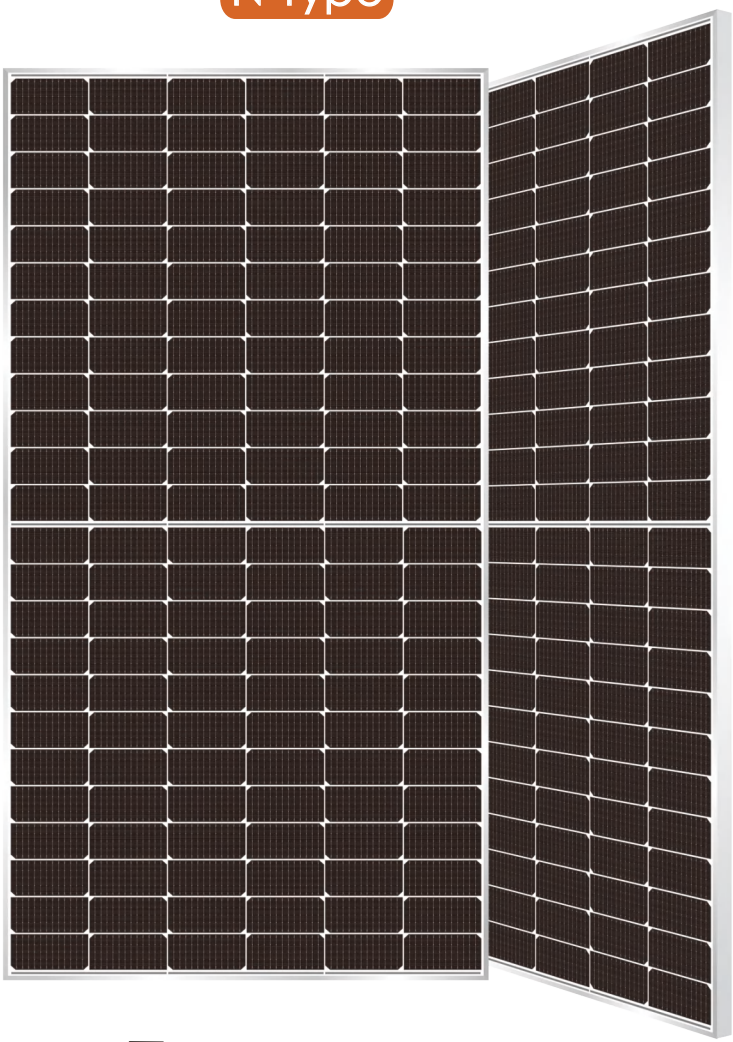
N-Type

east Lux energy

Neptune Series

EL-460~480N3-144BH

144-cell Bifacial HJT Half Cell Solar Module



Product Warranty **15** years

Linear Power Warranty **30** years

Quality Benefits

22.1%

Extreme Power Production

The module efficiency up to 22.1% achieved by utilizing the most advanced technology in the solar industry.

SuperMBB

SuperMBB Half-Cut Cell Technology

Using the advanced 9BB solar cell combines with half-cut cell technology to guarantee more power.

Advanced Bifacial Efficiency

Bifaciality>80%, effectively improves backside power generation.
A bifacial cell design that generates energy from both sides, capturing and converting more sunlight into power even with a backsheet.

Weak light

High Energy Yield

Excellent weak light performance and better performance in hot climate. Leading temperature coefficient for more production when the sun shines strongest, Or under the cloudy, haze condition.

5,400
2,400
Pascal

Guaranteed Better Durability

Certified for snow and wind loads of a maximum of 5,400 / 2,400 Pascal

weather to improve cell life for long-lasting high power.

Industry Leading Output Warranty

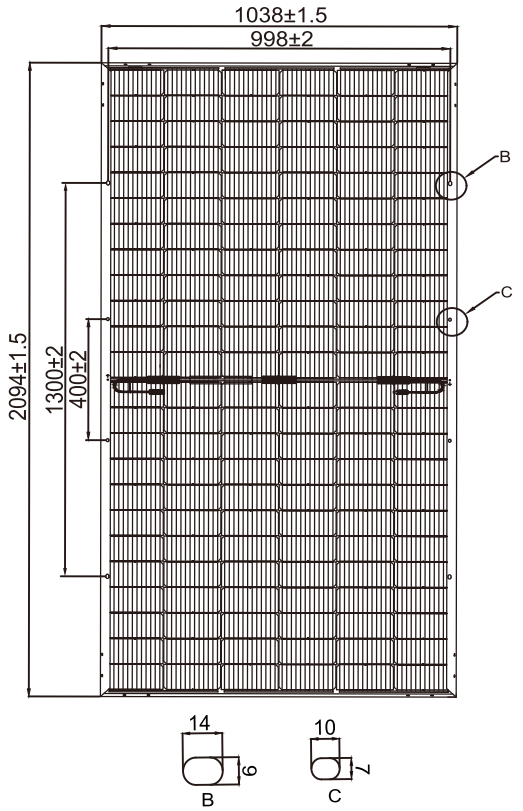
East Lux Energy cell technology result in extremely low LID and PID which supports reliability and longevity. 12% power degradation in 30 years.

EAST LUX N3 SERIES 460~480W

144-cell Bifacial HJT Half Cell Solar Module

Engineering Drawings

Unit: mm



Electrical Characteristics (STC*)

		460	465	470	475	480
Maximum Power	(Pmax)	460W	465W	470W	475W	480W
Module Efficiency	(%)	21.2%	21.4%	21.6%	21.9%	22.1%
Optimum Operating Voltage	(Vmp)	45.24V	45.44V	45.66V	45.86V	46.08V
Optimum Operating Current	(Imp)	10.18A	10.24A	10.30A	10.36A	10.43A
Open Circuit Voltage	(Voc)	53.22V	53.35V	53.48V	53.61V	53.74V
Short Circuit Current	(Isc)	10.58A	10.64A	10.70A	10.76A	10.82A
Operating Module Temperature		-40 to +85℃				
Maximum System Voltage		DC1500V (IEC)				
Maximum Series Fuse		20A				
Power Tolerance		0~+5W				
Bifaciality		80%±5%				

*STC: Irradiance 1000 W/m², cell temperature 25℃, AM=1.5. Tolerance of Pmax is within +/- 3%.

BSTC**

		510W	515W	520W	525W	530W
Maximum Power	(Pmax)	510W	515W	520W	525W	530W
Optimum Operating Voltage	(Vmp)	46.20V	46.40V	46.60V	46.80V	47.00V
Optimum Operating Current	(Imp)	11.14A	11.19A	11.24A	11.29A	11.34A
Open Circuit Voltage	(Voc)	54.33V	54.73V	55.33V	55.93V	56.53V
Short Circuit Current	(Isc)	11.53A	11.57A	11.61A	11.65A	11.69A

**BSTC: Front side irradiation 1000W/m², back side reflection irradiation 135W/m², AM=1.5, ambient temperature 25℃.

Temperature Characteristics

Nominal Operating Cell Temp. (NOCT)	44℃±2℃
Temperature Coefficiency of Pmax	-0.26%/℃
Temperature Coefficiency of Voc	-0.24%/℃
Temperature Coefficiency of Isc	0.04%/℃

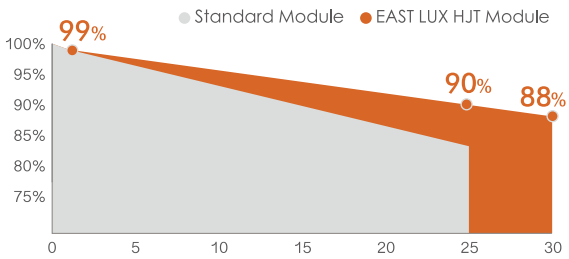
Mechanical Characteristics

Cell Type	HJT Mono 166×83mm
Cell Connection	144 (72×2)
Module Dimension	2094×1038×30 mm
Weight	27.5 kg
Junction Box	IP67 / IP68
Output Cable	4mm², 200mm in length, length can be customized / UV Resistant
Connectors Type	MC4 Compatible
Frame	Anodised Aluminum Alloy
Encapsulant	POE
Front Load	5400 Pa
Rear Load	2400 Pa
Glass Thickness	(F) 2.0mm Anti-reflective surface Solar glass | (B) 2.0mm Solar glass

Safety & Warranty

Safety Class	Class II
Fire Rating	Class A
Product Warranty	15 yrs Workmanship
Performance Warranty	30 yrs Linear Warranty*

* 1st year 99%, after 2nd year 0.375% annual degradation to year 30.



* Refer to EAST LUX standard warranty for details

Shipping Configurations

		HC	GP
Container Length		40'	20'
Pallets Per Container		22	5
Modules Per Pallet	(pcs)	36	36
Modules Per Container	(pcs)	792	180

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