

# ONYX TOPCON BIFACIAL MODULE WITH DUAL GLASS

625/630/635/640/645/650



Bifacial technology enables additional energy harvesting from rear side (up to 30%)



30 years lifespan brings 10-30% additional power generation comparing with conventional P-type module



N-type solar cell has no LID naturally which can increase power generation



Excellent low irradiance performance.



Industry leading lowest thermal co-efficient of power.

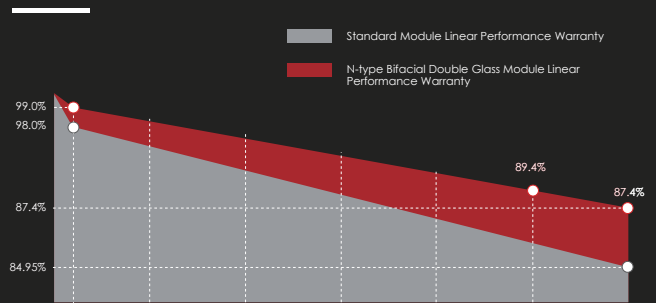


Certified to withstand: wind load (2400 Pa) and snow load (5400 Pa).



100% triple EL test enabling remarkable reduction of hidden crack rate of modules

## LINEAR PERFORMANCE WARRANTY



**30** years  
Product Workmanship Warranty

**30** years  
Output Power Warranty

- IEC61215(2016), IEC61730(2016)
- ISO9001:2015: Quality Management System
- ISO45001:2018 Occupational health and safety management systems



# ESXXM78-BF 625-650 Watt

## Mechanical Characteristics

Cell Type	N- type Mono-crystalline
No. of cells	156 (78×2)
Dimensions	2465×1134×30 mm
Weight	34.0 kg
Front Glass	2.0 mm, Anti-reflection Coating
Back Glass	2.0 mm, Heat Strengthened Glass
Frame	Anodized Aluminium Alloy
Junction Box	IP68 Rated
Protection Class	Class II
IEC Fire Type	Class A
Connector Type	MC4 Compatible/MC4
Output Cables	4.0 mm <sup>2</sup> (+): 400 mm , (-): 200 mm or Customized Length

## Packaging Configuration

Pallet Dimensions	2525×1140×1251 mm
Packing Detail (Two pallets = One stack)	36 pcs/pallets, 72 pcs/stack, 576 pcs/ 40'HQ Container

## Specifications (STC)

Maximum Power - Pmax [Wp]	625	630	635	640	645	650
Maximum Power Voltage - Vmp [V]	47.54	47.70	47.86	48.02	48.17	48.33
Maximum Power Current - Imp [A]	13.15	13.21	13.27	13.33	13.39	13.45
Open-circuit Voltage - Voc [V]	56.95	57.08	57.21	57.34	57.47	57.60
Short-circuit Current - Isc [A]	13.80	13.86	13.92	13.98	14.04	14.10
Module Efficiency STC [%]	22.36	22.54	22.72	22.90	23.07	23.25
Power Tolerance	0 ~ + 3 %					
Temperature Coefficients of Pmax	-0.29 %/°C					
Temperature Coefficients of Voc	-0.25 %/°C					
Temperature Coefficients of Isc	0.045 %/°C					

STC: Irradiance 1000W/m<sup>2</sup>, Cell Temperature 25°C, AM=1.5

## Specifications (BNPI)

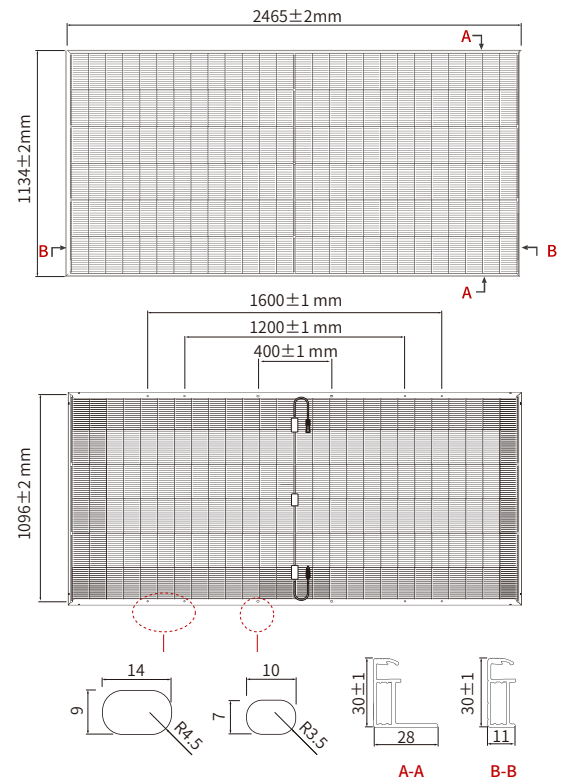
Maximum Power - Pmax [Wp]	688	693	699	704	710	716
Maximum Power Voltage - Vmp [V]	47.57	47.73	47.91	48.06	48.23	48.40
Maximum Power Current - Imp [A]	14.46	14.52	14.59	14.65	14.72	14.79
Open-circuit Voltage - Voc [V]	57.00	57.14	57.28	57.42	57.56	57.70
Short-circuit Current - Isc [A]	15.19	15.27	15.35	15.43	15.51	15.59

BNPI: Irradiance: front 1000W/m<sup>2</sup>, rear 135W/m<sup>2</sup>, Cell Temperature 25°C, AM=1.5

## Application Conditions

Operating Temperature	-40 °C ~ +70 °C
Maximum System Voltage	1500 VDC (IEC)
Maximum Series Fuse Rating	30 A

## Engineering Drawings



\*Note: For specific dimensions and tolerance ranges, please refer to the corresponding detailed module drawings.

## Electrical Performance & Temperature Dependence

