



# Beam N DUAL GLASS Solar Panel

## 475-495W

Bifacial - Black Frame (182mm)

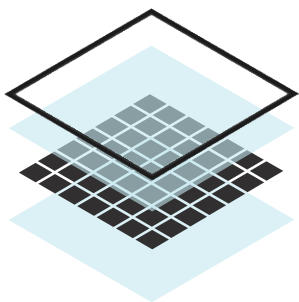
### N-Type Half Cell Module

ENSP60NDG2475  
ENSP60NDG2480

ENSP60NDG2490  
ENSP60NDG2495



Built using N-Type Dual Glass technology, the Energizer® Solar Panels range combine two of the best technologies in the market.



### Dual Glass Construction

- Panel Frame
- Front Glass Panel
- Solar Cells
- Rear Glass Panel



Dual glass technology



Lower operating temperatures



Improved fire & water resistance



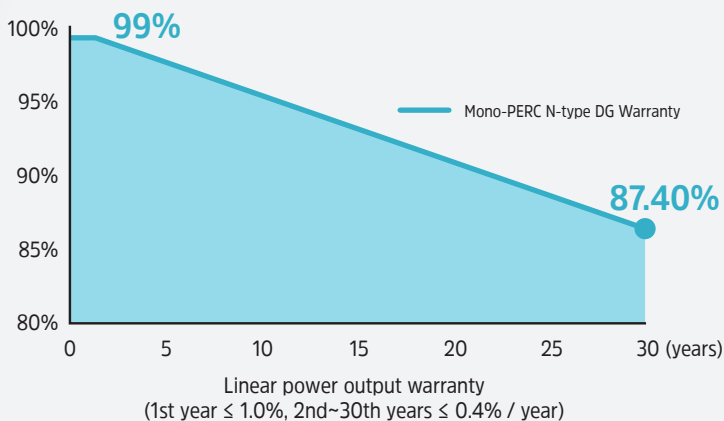
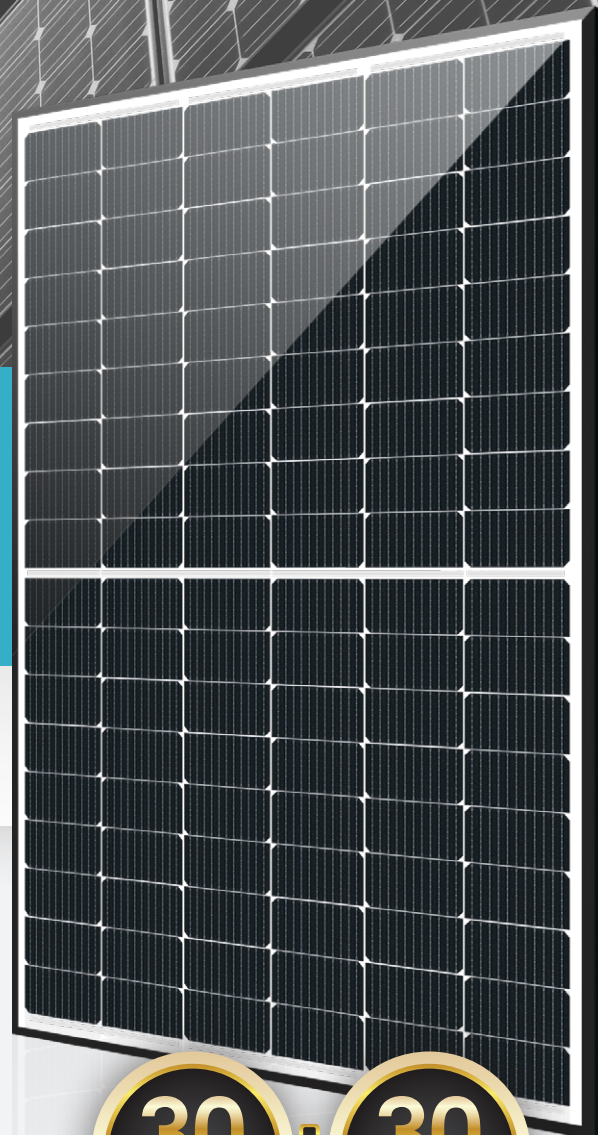
Improved durability with no extra weight



Quality controlled by artificial intelligence



Positive power tolerance of 0~+5W



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## Electrical Specifications

STC rated output ( $P_{mpp}$ )	475 Wp	480 Wp	490 Wp	495 Wp
Rated voltage ( $V_{mpp}$ ) at STC	36.39 V	36.52 V	36.77 V	36.90 V
Rated current ( $I_{mpp}$ ) at STC	13.05 A	13.14 A	13.33 A	13.42 A
Open circuit voltage ( $V_{oc}$ ) at STC	43.31 V	43.46 V	43.76 V	43.91 V
Short circuit current ( $I_{sc}$ ) at STC	13.80 A	13.91 A	14.12 A	14.22 A
Module efficiency	22.0%	22.2%	22.6%	22.9%
Rated output ( $P_{mpp}$ ) at NMOT	357.2 Wp	361.0 Wp	368.5 Wp	372.2 Wp
Rated voltage ( $V_{mpp}$ ) at NMOT	34.26 V	34.37 V	34.61 V	34.73 V
Rated current ( $I_{mpp}$ ) at NMOT	10.43 A	10.50 A	10.65 A	10.72 A
Open circuit voltage ( $V_{oc}$ ) at NMOT	41.14 V	41.28 V	41.56 V	41.71 V
Short circuit current ( $I_{sc}$ ) at NMOT	11.14 A	11.23 A	11.40 A	11.48 A
Temperature coefficient ( $P_{mpp}$ )	- 0.29%/°C			
Temperature coefficient ( $I_{sc}$ )	+ 0.043%/°C			
Temperature coefficient ( $V_{oc}$ )	- 0.25%/°C			
Nominal module operating temperature (NMOT)	41±2°C			
Maximum system voltage (IEC/UL)	1500V <sub>oc</sub>			
Number of diodes	3			
Junction box IP rating	IP 68			
Maximum series fuse rating	25 A			

STC: Irradiance 1000W/m<sup>2</sup>, Cell Temperature 25°C, AM=1.5  
 NMOT: Irradiance 800W/m<sup>2</sup>, Ambient Temperature 20°C, AM=1.5, Wind Speed 1m/s  
 Name plate tolerances: P<sub>max</sub> +/-3.5%, V<sub>oc</sub> +/-3.5%, I<sub>sc</sub> +/-5%

## Other Specifications

Outer dimensions (L x W x H)	1908 x 1134 x 30 mm
Cell type	N type Mono-crystalline
No. of cells	120
Frame technology	Black Aluminum frame, White backing
Front glass thickness	1.6+1.6 mm
Cable length (IEC/UL)	Portrait: (+) 350mm, (-) 250mm
Cable diameter (IEC/UL)	4 mm <sup>2</sup> / 12 AWG
Maximum mechanical test load	5400 Pa (front) / 2400 Pa (back)
Connector type (IEC/UL)	MC4 Connector PV-KBT4-EVO2A/xy (Stäubli)
Module weight	23 kg
Packing unit	36 pcs / box
Weight of packing unit (40ft container)	875 kg
Modules per 40ft container	864 pcs
Fire Class Rating	Class A
Country of Manufacturer	China

## Curve

