



Beam N Solar Panel

415-420W

All Black (182mm)

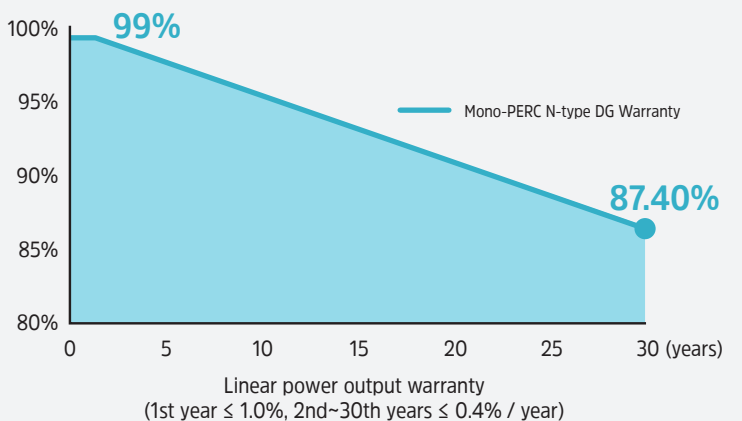
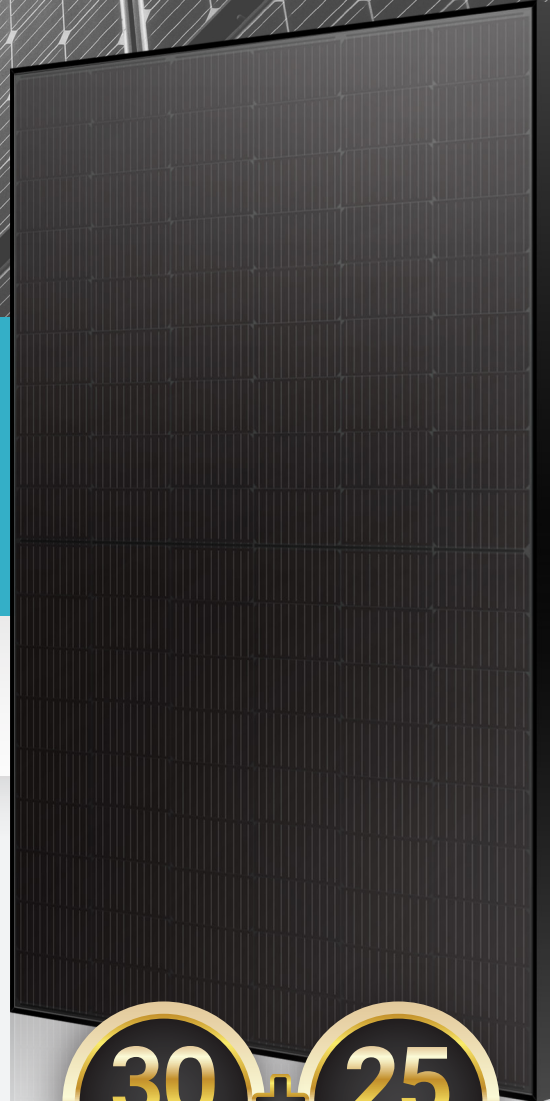
Mono PERC Half Cell Module

ENSP54NBL2415BF
ENSP54NBL2420BF



Built using Mono-crystalline PERC technology, the Energizer® Solar Panels range combine two of the best technologies in the market.

- Lower Power Loss**
Better performance in shaded and low-light conditions.
- Higher efficiency**
Higher module power efficiency up to 20.6%.
- Lower operating temperatures**
Low operating temperatures and coefficients increases performance.
- Half Cell technology**
Excellent performance under real conditions.
- Keeps going and going**
Engineered and designed to withstand harsh environments.



hello@energizersolar.com energizersolar.com

Electrical Specifications

STC: Irradiance 1000W/m², Cell Temperature 25°C, AM=1.5

Rated output (P _{mpp} / Wp)	415	420
Rated voltage (V _{mpp} / V)	31.76	31.93
Rated current (I _{mpp} / A)	13.06	13.15
Open circuit voltage (V _{oc} / V)	37.80	38.00
Short circuit voltage (I _{sc} / A)	13.76	13.87
Module efficiency	21.3%	21.5%

NMOT: Irradiance 800W/m², Ambient Temperature 20°C, AM=1.5, Wind Speed 1m/s

Rated output (P _{mpp} / Wp)	312.2	315.8
Rated voltage (V _{mpp} / V)	29.90	30.06
Rated current (I _{mpp} / A)	10.44	10.51
Open circuit voltage (V _{oc} / V)	35.91	36.10
Short circuit current (I _{sc} / A)	11.11	11.20

Power Sorting: +/-5W Measurement tolerance +/-3%

Temperature Rating (STC)

Temperature coefficient (P _{mpp})	-0.30% / °C
Temperature coefficient (I _{sc})	-0.043% / °C
Temperature coefficient (V _{oc})	-0.24% / °C
Nominal module operating temperature (NMOT)	41±2°C

Operating Parameters

No. of diodes	3
Junction box IP rating	IP68
Max. series fuse rating	25A
Max. system voltage (IEC/UL)	1500V _{oc}

Other Specifications

Outer dimensions (L x W x H)	1722 x 1134 x 30mm
Cell type	N type Mono-crystalline
No. of cells	108
Frame technology	Aluminium (silver or black)
Front glass thickness	3.2mm
Cable length (IEC/UL)	Portrait: 350mm; Landscape: 250mm
Cable diameter (IEC/UL)	4mm ² / 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	21.3kg
Packing unit	36 pcs / box
Weight of packing unit (40ft container)	811kg
Modules per 40ft container	936 pcs
Fire Class Rating	Class C
Country of Manufacturer	China

Curve

