



# Beam 2 Solar Panel

# 390-415W


Silver / Black Frame (182mm)


Mono PERC Half Cell Module


- ENSP54M2390BF    ENSP54M2405BF
- ENSP54M2395BF    ENSP54M2410BF
- ENSP54M2400BF    ENSP54M2415BF





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

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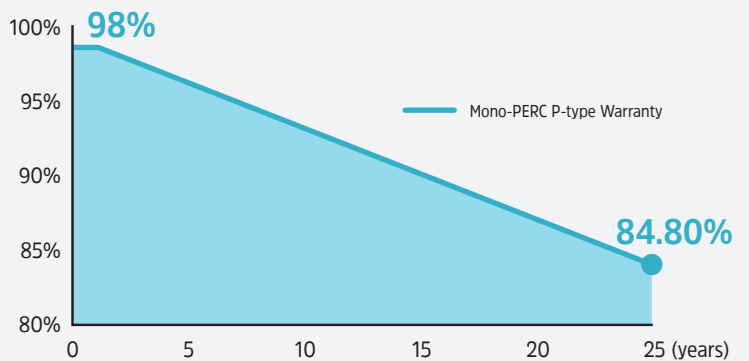
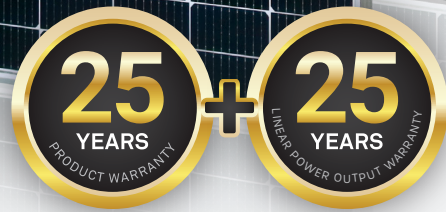
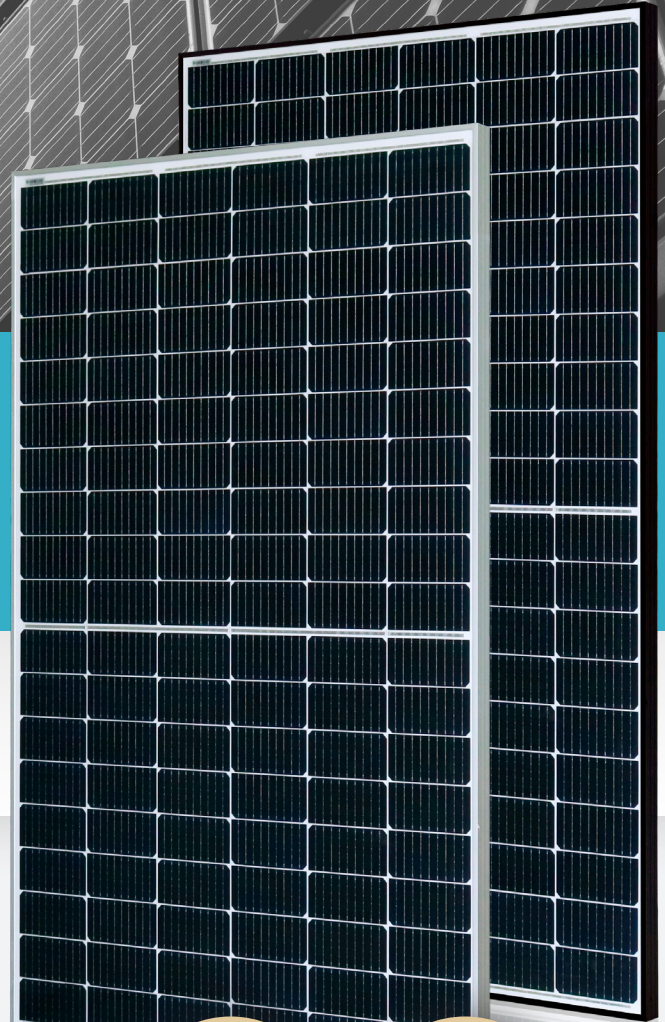
**Lower Power Loss**  
Better performance in shaded and low-light conditions.
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**Higher efficiency**  
Higher module power efficiency up to 20.6%.
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**Lower operating temperatures**  
Low operating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



Linear power output warranty  
(1st year ≤ 2.0%, 2nd~25th years ≤ 0.55% / year)

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## Electrical Specifications

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

Rated output (P <sub>mpp</sub> / W <sub>p</sub> )	390	395	400	405	410	415
Rated voltage (V <sub>mpp</sub> / V)	30.76	30.92	31.09	31.26	31.43	31.60
Rated current (I <sub>mpp</sub> / A)	12.68	12.77	12.86	12.96	13.05	13.13
Open circuit voltage (V <sub>oc</sub> / V)	36.60	36.80	37.00	37.20	37.40	37.60
Short circuit voltage (I <sub>sc</sub> / A)	13.40	13.52	13.65	13.76	13.99	13.99
Module efficiency	20.0%	20.2%	20.5%	20.7%	21.0%	21.3%

**NMOT:** Irradiance 800W/m<sup>2</sup>, Ambient Temperature 20°C, AM=1.5, Wind Speed 1m/s

Rated output (P <sub>mpp</sub> / W <sub>p</sub> )	291.5	295.2	298.9	302.7	306.4	310.1
Rated voltage (V <sub>mpp</sub> / V)	28.66	28.82	28.98	29.13	29.29	29.45
Rated current (I <sub>mpp</sub> / A)	10.17	10.24	10.32	10.39	10.49	10.53
Open circuit voltage (V <sub>oc</sub> / V)	34.59	34.78	34.97	35.15	35.34	35.53
Short circuit current (I <sub>sc</sub> / A)	10.87	10.97	11.07	11.17	11.26	11.35

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

## Temperature Rating (STC)

Temperature coefficient (P <sub>mpp</sub> )	-0.35% / °C
Temperature coefficient (I <sub>sc</sub> )	-0.045% / °C
Temperature coefficient (V <sub>oc</sub> )	-0.27% / °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 <sub>oc</sub>

## Other Specifications

Outer dimensions (L x W x H)	1722 x 1134 x 30mm
Cell type	P type Mono-crystalline
No. of cells	108
Frame technology	Aluminium (silver or black)
Front glass thickness	3.2mm
Cable length (IEC/UL)	Portrait: 300mm; Landscape: 1200mm
Cable diameter (IEC/UL)	4mm <sup>2</sup> / 12 AWG
Maximum mechanical test load	5400 Pa (front) / 2400 Pa (back)
Connector type (IEC/UL)	PV-HCB40 (Astronergy) or PV-KST4-EVO2/xy-UR, PVKBT4-EVO2/xy (Stäubli)
Module weight	21.6kg
Packing unit	36 pcs / box
Weight of packing unit (40ft container)	821kg
Modules per 40ft container	936 pcs
Fire Class Rating	Class C
Country of Manufacturer	China

## Curve

