

FUTURE
SOLUTIONS



FS-BF450 450 Watt Bifacial Solar Panel

Elevate your solar energy game with the Future Solutions Bifacial Solar Panel. With its unique transparent design, this cutting-edge innovation delivers a remarkable surge in performance when compared to conventional monofacial models. Made in Indiana, USA with an aluminum frame and high-efficiency solar cells that guarantee exceptional performance.

⚡ ADVANCED SOLAR CELLS

High-efficiency Mono PERC solar cells on both sides ensure high performance of the solar module and create maximum power output.

⚡ PANEL LIFE

25 Year performance warranty and under 10% decrease of output power within 12 years.

⚡ ALUMINUM FRAME

Screwless corner joints provide superior rigidity, with predrilled mounting holes for ease of installation.

⚡ HIGH-TRANSMISSION GLASS

High-transmission 3.2mm tempered glass (over 92-95% transmission). Provides high module efficiency even in diffused light conditions.

⚡ SUPERIOR JUNCTION BOX

IP68 Rated high quality junction box for optimal performance and extended life in harsh conditions.

⚡ WEATHER-PROOF DESIGN

High impact and corrosion resistance to the most severe weather: high wind, driving rain, heavy snow and hail.

FS-BF450

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MECHANICAL SPECIFICATIONS

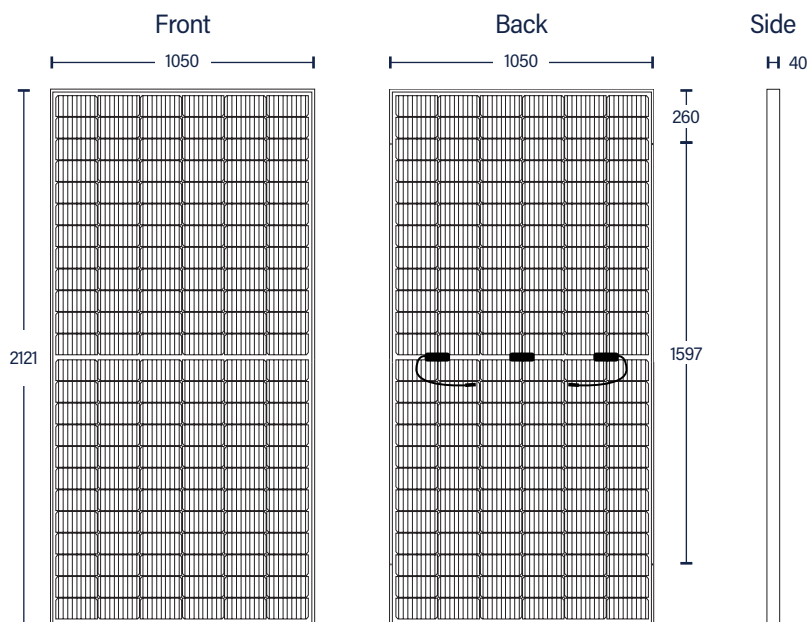
Dimensions (LxWxH)	2121mm x 1050mm x 40mm (83.5" x 41.31" x 1.575")
Weight	48.5 lbs
Frame	Anodized Aluminum
Cable Length	1 Meter
Cable Connector	MC4 Type
Number of Cells	144 M6 cells
Cell Type	M6, Mono PERC
Junction Box	IP68

TEMPERATURE COEFFICIENTS

PMAX	-0.38%/°C
VOC	-0.36%/°C
ISC	-0.068%/°C

PROFILE AND DIMENSIONS

units: mm



ELECTRICAL SPECIFICATIONS

	front	10% rear
Maximum Power (Pmax)	447	474
Maximum Power Voltage (Vmp)	41.97	41.97
Maximum Power Current (Imp)	10.65	11.29
Open Circuit Voltage (Voc)	49.46	49.46
Short Circuit Current (Isc)	11.09	11.75

MAX LIMITS

Max System Voltage	1500Vdc
Module Operating Temp	-40° C to +85° C

CERTIFICATIONS

UL 61730
IEC 61215

All specifications and data described in this data sheet are tested under Standard Test Conditions (STC- Irradiance: 1000W/m2, Air Mass: 1.5, Temperature: 77°F) and may deviate marginally from actual values. Future Solutions and affiliates have reserved the rights to make any modifications to the information on this data sheet without notice. It is our goal to supply our customers with the most recent information regarding our products for informational purposes only.

