

# S4WD



**Solar4WD**  
POWERING A SUSTAINABLE FUTURE

## Solar Modules

### MONO PERC 10BB S4WD BLACK | 440 - 450Wp

Solar4WD is a renowned distributor and supplier of high-quality and cost-effective solar energy solutions. With expertise in sourcing and supplying top-grade PV modules and a comprehensive range of solar products, we specialize in delivering reliable and efficient solar solutions to our clients. Our focus is on providing exceptional customer service and ensuring that our customers have access to the best solar products in the market. With Solar4WD as your trusted distributor and supplier, you can rely on us for all your solar energy needs.



Anti-Reflective (AR) Coated Glass Anti-Reflective Surface



Excellent Module Efficiency with Mono PERC cells Through 100% Automation



Positive Power Tolerance with Current Binning to Prevent Mismatch Losses



Pre and Post EL Checking with High Resolution Camera



IP68 Junction Box for Long Term Endurance



100% High Voltage Testing to Ensure Safety



MBB Half-Cell Technology provides Better Performance under Partial Shading

#### Product Code:

- S4M440BPX
- S4M445BPX
- S4M450BPX



Linear Performance warranty\*



Product warranty on materials and workmanship

# TECHNICAL DATA

## PERFORMANCE UNDER STANDARD TEST CONDITIONS (STC) (irradiance of 1000 W/m<sup>2</sup>, spectrum AM 1.5G and cell temperature of 25°C.)

Model Number	S4M440BPX	S4M445BPX	S4M450BPX
Nominal Maximum Power (Pmax)	440 W	445 W	450 W
Power Tolerance	0 to +4.99 W	0 to +4.99 W	0 to +4.99 W
Optimum Operating Voltage (Vmp)	35.04 V	35.28 V	35.52 V
Optimum Operating Current (Imp)	12.56 A	12.62 A	12.69 A
Open Circuit Voltage (Voc)	40.91 V	41.07 V	41.27 V
Short Circuit Current (Isc)	13.19 A	13.24 A	13.30 A
Module Efficiency	20.32 %	20.55 %	20.80 %
Fill Factor	81.60 %	81.91 %	82.11 %

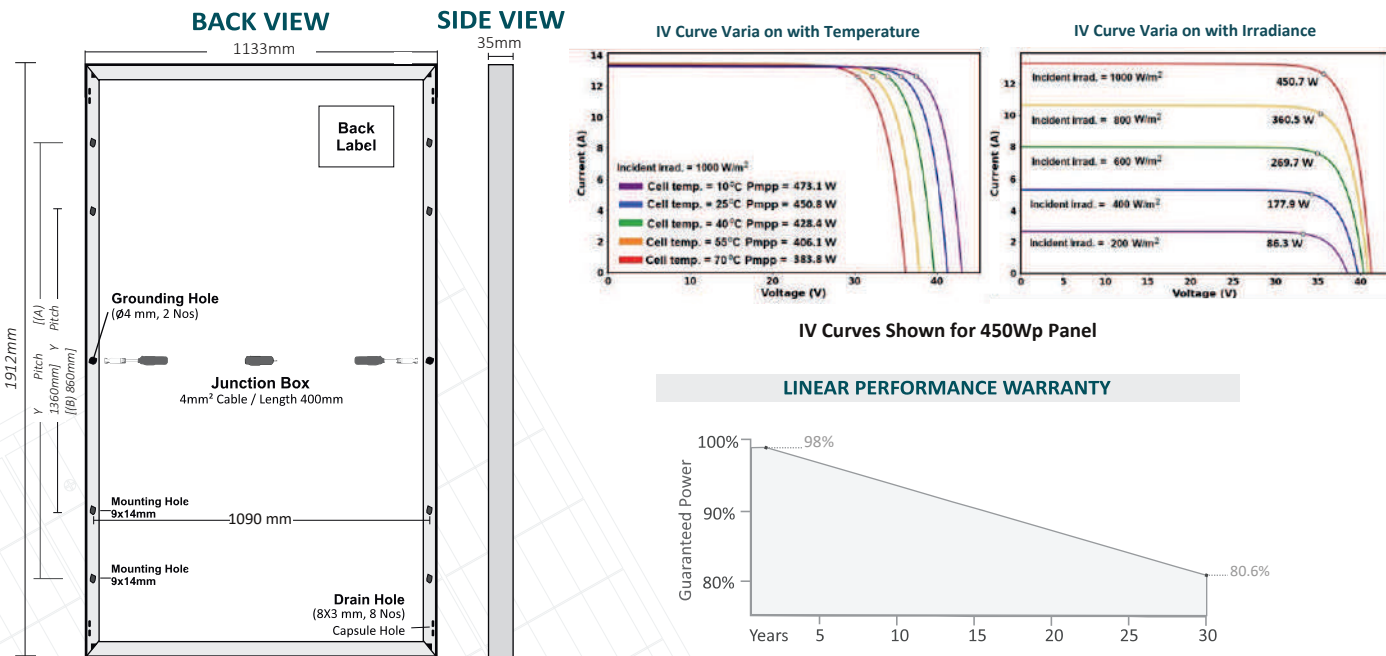
Measurement uncertainty: < ±3%

## PERFORMANCE UNDER NOCT (NOCT = 45.25°C irradiance of 800 W/m<sup>2</sup>, ambient temperature of 20°C and Wind speed 1 m/s)

Maximum Power (Pmax)	325 W	329 W	333 W
Optimum Operating Voltage (Vmp)	32.26 V	32.48 V	32.70 V
Optimum Operating Current (Imp)	10.09 A	10.14 A	10.19 A
Open Circuit Voltage (Voc)	38.48 V	38.63 V	38.82 V
Short Circuit Current (Isc)	10.68 A	10.72 A	10.77 A

## Mechanical Specifications

Dimensions (L x W x T in mm)	1912 x 1133 x 35
Weight(kg)	23.9
Cell type / No Of Cell	120 Half-cut Mono PERC Solar cells
Frame	Anodized Aluminum Alloy (6005, Temper T6, Black colour)
Front Cover	ARC coated Low Iron Tempered Glass (3.2 mm thick)
Encapsulate	Ethylene Vinly Acetate (EVA) Sheet - PID resistant and UV resistant
Back Cover	Plasma Treated Fluoro-Based polymeric Backsheet (Black colour)
Junction Box	Split Junction Box (3 nos. with individual Bypass Diode) – Weatherproof (IP68) 40 A, 45 V, 200 °C max. junction temperature
Bypass Diode	
Cable	4 sq. mm, 400 mm length (1200 mm available on request)
Connectors	MC4 compatible (MC4 original available on request)
Application Class Rating	Class A
Safety Class Rating	Class II
Mechanical Load Test (as per IEC & UL) Mounting Holes Pitch (Y)-mm	5400 Pa-Front; 2400 Pa-Back
Mounting Holes Pitch (X)-mm	[A] 1360, [B] 860
	1090



\*All dimensions are in mm with +/- 2mm tolerance.

\*graphics shown herein above are reference purpose only. Please consult Rayzon Solar Technical Team for any further clarification.

MAXIMUM OPERATING CONDITIONS	TEMPERATURE COEFFICIENTS	STACKING STANDARD	20FT	40FT
Operating Temperature: -40°C to +85°C	Current α(Isc) : 0.0297%/°C	No. of Modules	155	682
Maximum System Voltage: 1500V	Voltage β(Voc) : -0.2470%/°C	No of Pallets	522	
Maximum Series Fuse Rating: 25A	Power γ(Pmax) : -0.3303%/°C	Modules per Pallet / Weight	31Nos/790Kg	31Nos/790Kg
		Pallet dimensions	1950*1130*1275	1950*1130*1275

**Cau on:** Please read safety and installation instructions before using the product. **\*Warranty:** Linear performance warranty for 30 years, with degradation up to 2% in 1st year and 0.6 %/year from year 2 to year 30. Please read Solar4WD warranty documents thoroughly. **Disclaimer:** Specifications included in the datasheet are subject to change without prior notice owing to continuous innovation in the Product Development and R&D Activities. Solar4WD reserves the right to make any adjustment to the information described here. Dataset contained in this specification do not form a representative of a single module data. @T&C Apply.