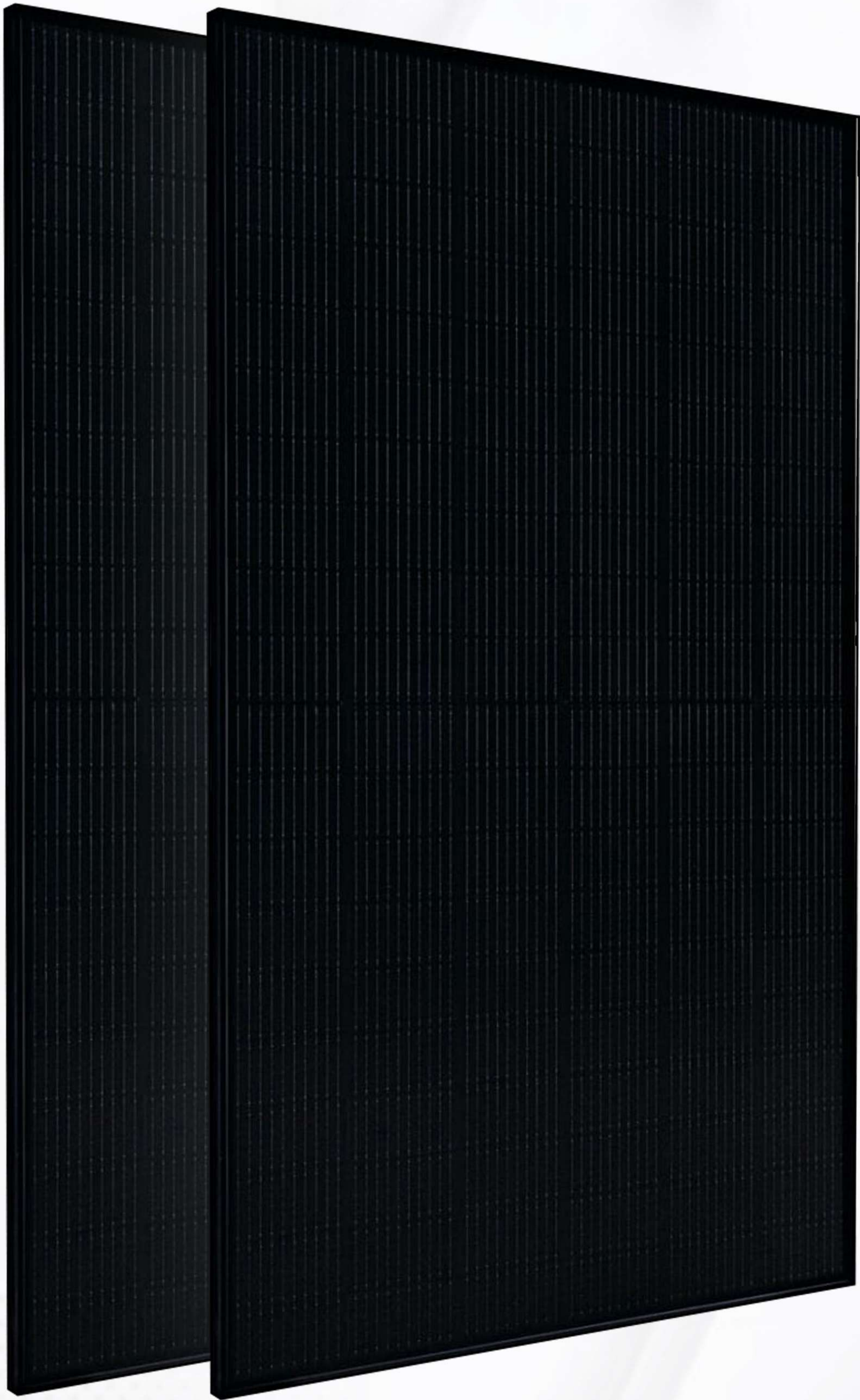


WS60M10



440-460W



Superior aesthetics, all-black design



Robust product design for harsh weather conditions



Improved performance in shaded areas




Designed & engineered in the U.S, Made in Dubai

Certifications:




Headquarter address


 2401 Fountain View Dr, #464
Houston, TX 77057

 (832) 291-3444

 info@winsolarllc.com

Manufactured at:

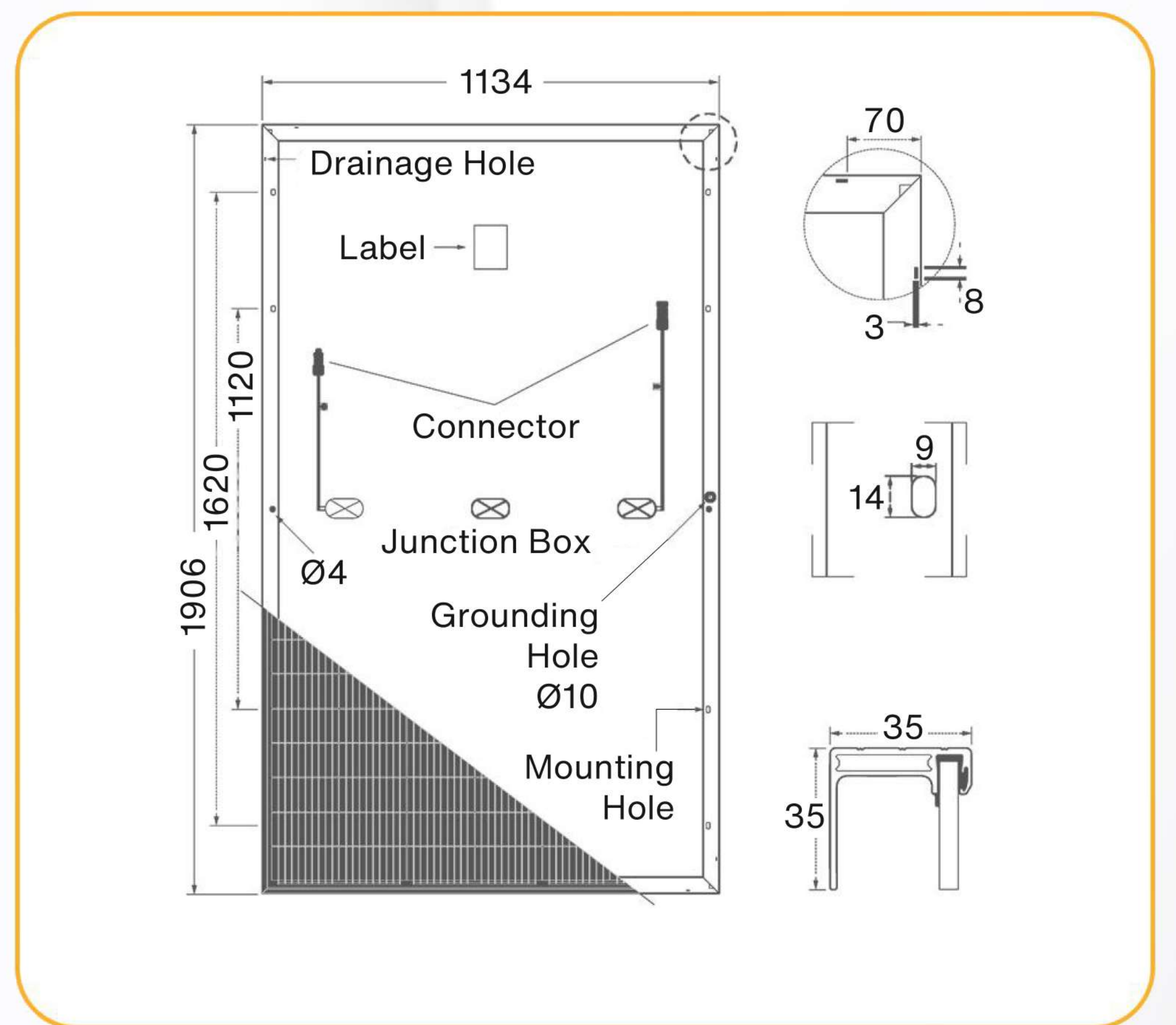
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MECHANICAL SPECIFICATIONS

Cell Type	Mono 182x91mm
Weight	24kg
Dimension	1906x1134x35mm (LxWxT)
Cables	4.0mm ² , Portrait: 300mm(+)/400mm(-) Landscape: 1200mm(+)/1200mm(-)
No. of Cells	120 (6x20)
Glass	3.2mm High Transmission, Antireflection Coating
Junction Box	IP68, 3 Bypass Diodes
Packing	31pcs/pallet, 744pcs/40HQ
Connector Type	Staubli Electrical Connectors AG (PV-KST4-EVO2/XY_UR)



Length: ±2mm, Width: ±2mm | Height: ±1mm, Pitch: ±2mm

ELECTRICAL SPECIFICATIONS

Module Type	WS60M10-440W		WS60M10-445W		WS60M10-450W		WS60M10-455W		WS60M10-460W	
	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Open-Circuit Voltage (Voc/V)	41.02	38.72	41.10	38.79	41.18	38.87	41.33	39.01	41.48	39.15
Maximum Power Voltage (Vmp/V)	33.72	31.39	33.82	31.56	33.91	31.73	34.06	31.91	34.20	32.07
Short-Circuit Current (Isc/A)	13.73	11.09	13.79	11.14	13.85	11.19	13.93	11.25	14.01	11.32
Maximum Power Current (Imp/A)	13.05	10.43	13.16	10.49	13.27	10.55	13.36	10.61	13.45	10.67
Maximum Power (Pmax/W)	440	327	445	331	450	335	455	339	460	342
Module Efficiency (%)	20.36%		20.59%		20.82%		21.05%		21.28%	
Power Tolerance	±3%									
Tolerance of Rating Pmax/Isc/Voc %	±3%/±4%/±3%									

NOCT: Irradiance 800w/m², Cell Temperature 20°C, Spectrum AM1.5, Wind Speed 1m/s STC: Irradiance 1000w/m², Cell Temperature 25°C, Spectrum AM1.5

Binning Tolerance: 0 to +5W

MAXIMUM RATINGS

Maximum System Voltage	1500V DC
Operating Temperature	-40°C to +85°C
Maximum Series Fuse	25A
Safety Class	II
Fire Rating	Class C

TEMPERATURE CHARACTERISTICS

NOCT Temperature	45°C±2°C
Temperature Coefficient (Pmax)	-0.37%/°C
Temperature Coefficient (Voc)	-0.29%/°C
Temperature Coefficient (Isc)	0.05%/°C

PERFORMANCE WARRANTY

Max Power Degradation	0.5%/Year
At The End of 1 st Year	97.5%
At The End of 10 th Year	93%
At The End of 25 th Year	85.5%

CURVE & TEMPERATURE DEPENDENCE

