

WHALE SERIES

Single Glass Bifacial Solar Panel








78 M10 Half Cut Cells (Mono Perc)

TYPE: AS-(600-620)-78IIMB

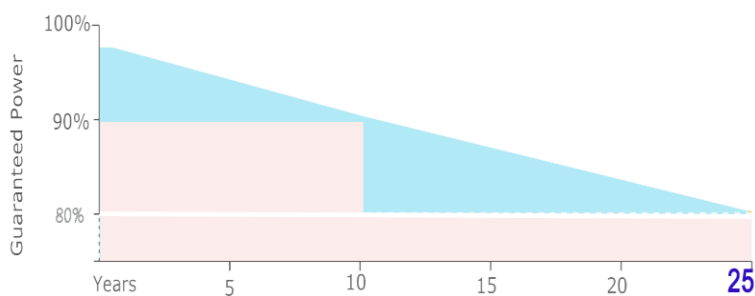
600W-620W

22.18% efficiency

ADVANTAGES & FEATURES

- 
HIGH SAVING
 Lower LCOE, reduced BOS cost shorter payback time
- 
HIGH EFFICIENCY
 Excellent module conversion efficiency of up to 21.28%
- 
LOW-LIGHT PERFORMANCE
 Advanced glass and cell surface textured design ensure excellent performance in low-light environment.
- 
PID RESISTANCE
 Excellent Anti-PID performance guarantees Limited power degradation for mass production
- 
IP68 JUNCTION BOX
 High waterproof level
- 
BIFACIAL TECHNOLOGY
 Up to 30% More Power Output than normal standard PV modules.
 Bi-Faciality Factor: 70 ± 5%
- 
PERC AND HALF CUT CELLS
 Stable and Lower Temperature coefficient

LINEAR GRAPH



Output Warranty
25 Years

Product Guarantee
12 Years

**Power Degradation: < 2% For the First Year
< 0.5% / Year in 2~25 Years**

CERTIFICATES



ELECTRICAL CHARACTERISTIC @STC

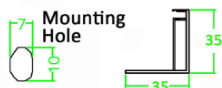
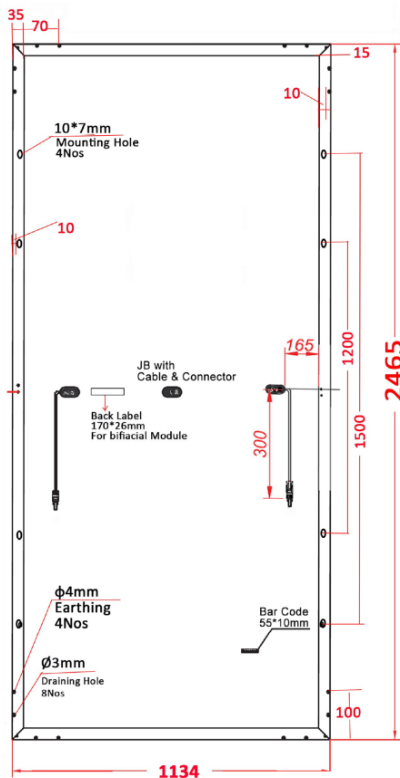
STC: 1000W/M ² , AM: 1.5, 25°C		STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Max. Power (Pmax)	(W)	600W	457W	605W	460W	610W	465W	615W	468W	620W	472W
Max. Power Voltage (Vmpp)	(V)	46.01	42.12	46.15	42.25	46.28	42.37	46.42	42.50	46.56	42.62
Max. Power Current (Impp)	(A)	13.04	10.85	13.11	10.90	13.18	10.96	13.25	11.02	13.32	11.08
Open Circuit Voltage (Voc)	(V)	54.12	50.35	54.28	50.50	54.44	50.65	54.60	50.80	54.77	50.95
Short Circuit Current (Isc)	(A)	13.94	11.47	14.01	11.53	14.09	11.59	14.16	11.65	14.24	11.71
Module Efficiency	(Eff%)	21.46%		21.64%		21.82%		22.00%		22.18%	

*STC (Standard Test Condition): Irradiance 1000W/m², Cell Temperature 25°C, Air Mass 1.5

*Measurement Tolerance (±3.0%)

*NOCT (Nominal Module Operating Temperature): Irradiance 800W/m², Ambient Temperature 20°C, Wind Speed 1m/s.

DRAWING (IN MM)



TEMPERATURE COEFFICIENTS

MAX. LIMITS

Temp Coefficients of Pm	-0.360%/°C	Max. System Voltage	1500VDC IEC
Temp Coefficients of Voc	-0.280%/°C	Operating Temp	-40°C to +85°C
Temp Coefficients of Isc	+0.05%/°C	Noct	45°C±2 °C

MECHANICAL CHARACTERISTICS

Cell Technology and size	Mono Perc 10BB, 182mmx91mm		
Number of Cells (pcs)	156 Pcs Half Cut of M10 (78*2)		
Dimensions	2465x1134x35mm		
Glass / Front Cover	3.2mm, High Transmission AR coated Safe Glass		
Encapsulation	0.55mm, PID free EVA film, UV CUT & UV THROUGH		
Rear Cover	0.32mm Transparent Back Sheet, High Light Transmission		
Weight	30.0 kgs		
Frame	Anodized Aluminum Alloy, Silver Color		
Junction Box	IP68 Certified, 3 Bypass diodes, split junction box		
Cables & Connectors	4mm ² 12AWG, Length 300mm, MC4 compatible Connectors		
Allowable Hail Load	227g steel ball dropped from 1m height		
Surface Load	Snow Load 5400pa, Wind Load 2400pa		
Series Fuse Rating:	30A	Application Class: A	Fire Rating Class: C

PACKAGING CONFIGURATION

Modules per Pallet: 31pcs

Modules per 40HQ Container: 620pcs

IV CURVES

