



OCTOPUS SERIES

Mono Facial Solar Panel

60 M10 Half Cut Cells (Mono Perc)

TYPE: AS-(440-460)-60IIMB

440W-460W

21.24% 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



DOUBLE EL TEST

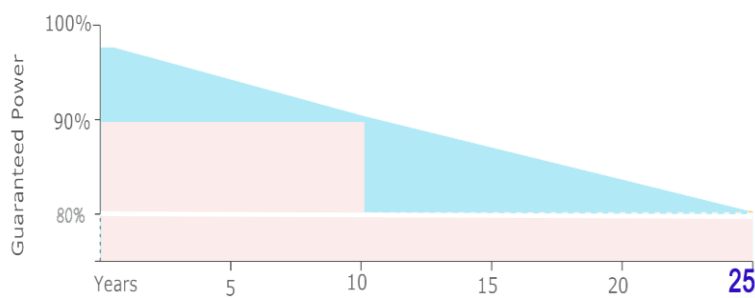
Micro crack and hotspot free, stable power output for long term



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

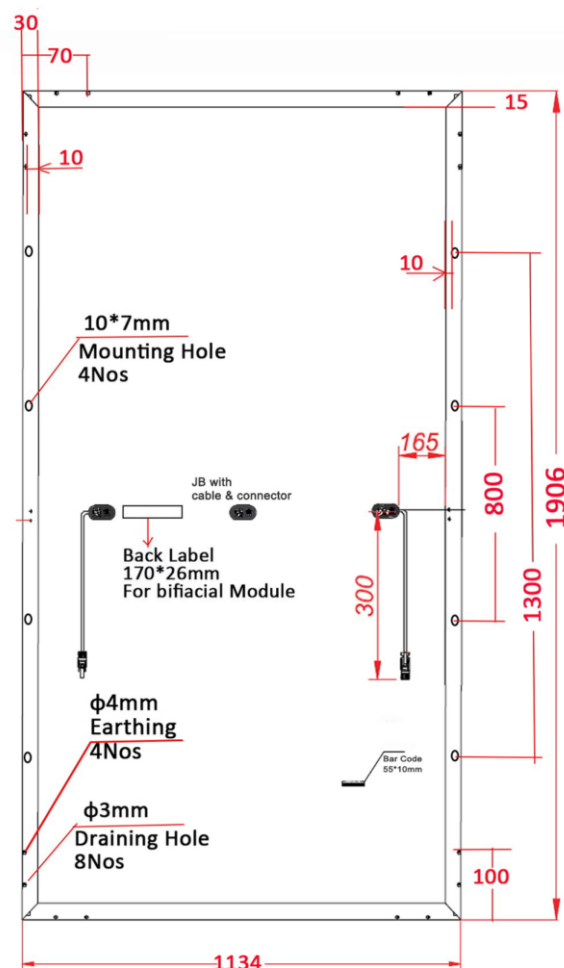
STC: 1000W/M ² , AM: 1.5, 25°C:		STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT
Max. Power (P _{max})	(W)	440W	331W	445W	335W	450W	339W	455W	343W	460W	347W
Max. Power Voltage (V _{mpp})	(V)	34.67	32.29	34.87	32.56	35.07	32.82	35.27	33.08	35.47	33.33
Max. Power Current (I _{mpp})	(A)	12.69	10.25	12.76	10.29	12.83	10.33	12.90	10.37	12.97	10.41
Open Circuit Voltage (V _{oc})	(V)	41.94	39.56	42.12	39.83	42.31	40.09	42.49	40.35	42.68	40.62
Short Circuit Current (I _{sc})	(A)	13.58	10.87	13.65	10.91	13.72	10.95	13.79	10.99	13.86	11.03
Module Efficiency	(Eff%)	20.31%		20.55%		20.78%		21.01%		21.24%	

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

*Measurement Tolerance (±3.0%)

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

DRAWING (IN MM)



TEMPERATURE COEFFICIENTS

Temp Coefficients of P _m	-0.360%/°C	Max. System Voltage	1500VDC IEC
Temp Coefficients of V _{oc}	-0.280%/°C	Operating Temp	-40°C to +85°C
Temp Coefficients of I _{sc}	+0.05%/°C	Noct	45°C±2 °C

MAX. LIMITS

MECHANICAL CHARACTERISTICS

Cell Technology and size	Mono Perc 10BB, 182mmx91mm		
Number of Cells (pcs)	120 Pcs Half Cut of M10 (60*2)		
Dimensions	1906x1134x30mm		
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 White Back Sheet		
Weight	23.2kgs		
Frame	Anodized Aluminum Alloy		
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:	38pcs	Modules per 40HQ Container:	760pcs
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IV CURVES

