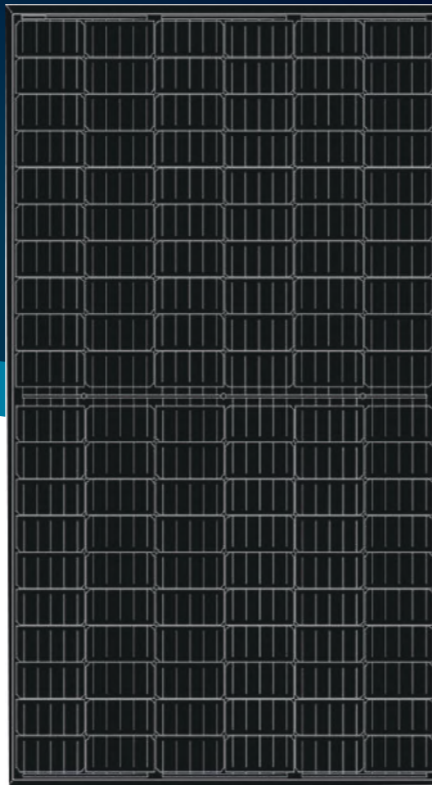


SM-72 BKHC ALL BLACK HALF CELL SERIES 144 CELLS

**390-410<sub>w</sub>**



**20.38%**  
Max efficiency

**15 YEARS**

Guarantee on product material and workmanship



**158.75mm**  
Monocrystalline solar cells

**25 YEARS**

Linear power output warranty

**KEY FEATURES**



100% double EL test enabling remarkable reduction of hidden crack rate of modules



Positive power tolerance (3 ~ +10W) guaranteed



Lower risk of hot spot effects



Significantly lower LCOE and BoS cost savings



Low Light Features  
Higher performance under low light environment.



5BB/9BB Cell  
More uniform current collection capability, reducing the current heat loss of the internal cells.



PID Protection  
Ensure the attenuation probability caused by PID phenomenon is minimized

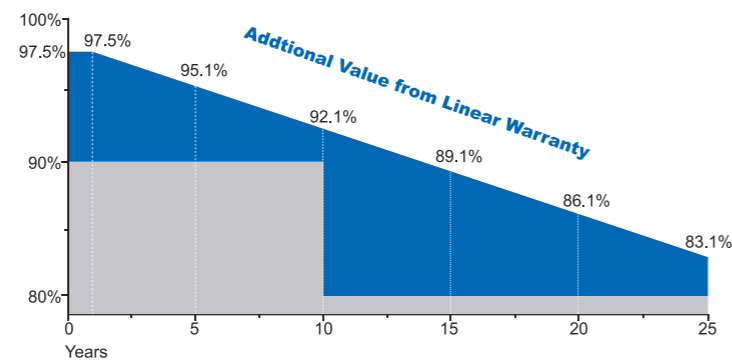
**MANAGEMENT SYSTEM**

ISO 9001: Quality management system

ISO 14001: Standard for environmental management system

OHSAS 18001: International standard for occupational health and safety assessment system

**WARRANTY**



**INSURANCE**



**PRODUCT CERTIFICATES**



**ALL BLACK MONO HALF CELL | 9BB&5BB**

**Electric Characteristics**

Model of modules	SM-390-72BKHC		SM-395-72BKHC		SM-400-72BKHC		SM-405-72BKHC		SM-410-72BKHC	
	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Maximum power— $P_{mp}$ (W)	390W	294W	395W	298W	400W	302W	405W	306W	410W	310W
Open-circuit voltage— $V_{oc}$ (V)	49.3V	48.0V	49.5V	48.2V	49.8V	48.5V	50.1V	48.7V	50.4V	48.9V
Short-circuit current— $I_{sc}$ (A)	10.12A	8.02A	10.23A	8.09A	10.36A	8.16A	10.48A	8.22A	10.60A	8.26A
Maximum power voltage— $V_{mp}$ (V)	41.1V	39.1V	41.4V	39.3V	41.7V	39.6V	42.0V	39.8V	42.3V	40.0V
Maximum power current— $I_{mp}$ (A)	9.49A	7.54A	9.55A	7.60A	9.60A	7.66A	9.65A	7.72A	9.69A	7.76A
Module efficiency— $\eta_m$ (%)	19.38%		19.63%		19.88%		20.13%		20.38%	

STC: Irradiance 1000 W/m<sup>2</sup>, 25°C, AM1.5      NOCT: Irradiance 800 W/m<sup>2</sup>, 20°C, wind velocity 1m/s

**Temperature Characteristics**

Temperature coefficient at maximum power	-0.36%/ °C
Temperature coefficient of Voc	-0.28%/ °C
Temperature coefficient of Isc	+0.048%/ °C
Current operating temperature	-40~+85 °C
Rated operating temperature of cells	45±2 °C

**Structural Characteristics**

Module dimensions	2008x1002x40mm
Weight	22.5kg
No. of Half-cells	144(6x24)
Cell	Mono crystalline 158.75x79.38mm
Glass	3.2mm AR coating tempered glass
Frame	Anodized aluminum alloy, black color
Junction box	IP68, three diodes
Output wire	4.0 mm <sup>2</sup> , wire length: 1200mm or Customized
Connector	MC4 compatible
Mechanical load	Snow load 5400Pa/Wind load 2400Pa

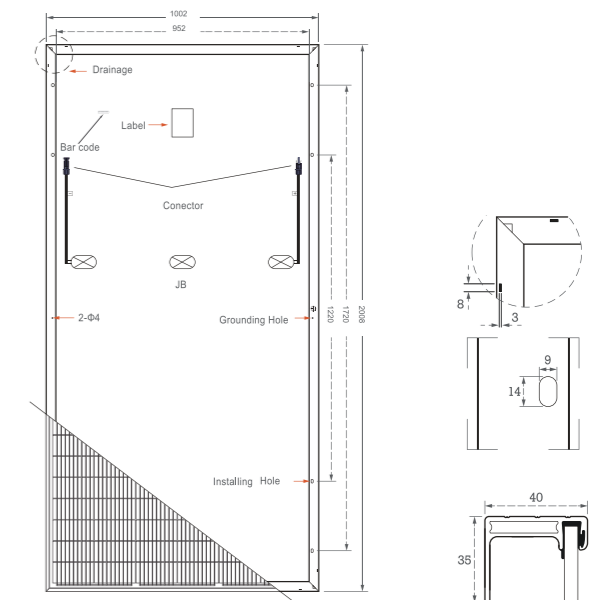
**Working Characteristics**

Power tolerance(W)	(3,+10)
Maximum system voltage(V)	1000V/1500V
Maximum rated fuse current (A)	20

**Packaging Configuration**

Container	20GP	40HQ
Quantity per pallet	26	27
Pallets per container	10	22
Quantity per container	260	660

**Engineering Drawings**



**IV Curves**

