

## MONOFACIAL HALF CUT MODULE 405-420W

MonoPERC



### Optimal Process Design

166mm+9BB+Half-cut, higher power output



### Select Grade A Crystalline Silicon Solar Cells

Grade A crystalline silicon solar cells make high-power output with cost-effective



### Stable Generation Performance

Guaranteed 0→+5W positive tolerance and slower power attenuation:  
first year ≤2%, 0.55% per year from 2-25



### Process Upgraded

Lower risk of hot spot and stronger anti-PID ability



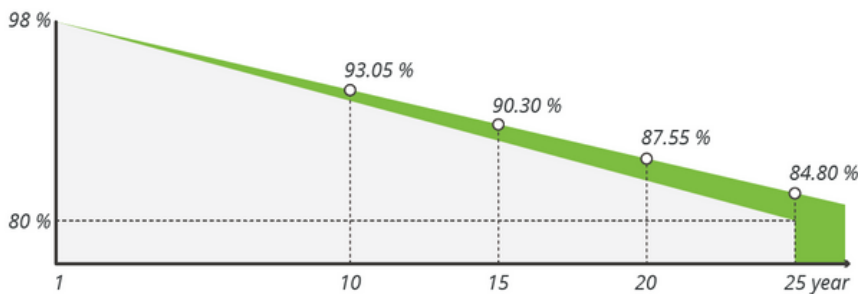
### Higher Power Gains and Lower Losses

Excellent low irradiance performance and low shadow loss



### Strong Environmental Adaptability and Great Durability

Certified by Dust-Sand, Salt-Mist, Ammonia etc. weather resistance tests and enhanced mechanical load: wind load (2400 Pa) and snow load (5400 Pa)



12 year product warranty

25 year linear performance warranty

Industry Standard

Smart Solar Technologies



**Tempered Solar Glass**  
Anti-Reflection Coating



**Backsheet Layer**  
320 / 350 Micron 3 Layers



**Junction Box**  
IP68 (Silicon Potting)



**Anodized Aluminium Frame**  
30mm Frame  
15-20 µm Eloxal Surface Coating

### STC - ELECTRICAL VALUES

Model	SS405M6H-22/WH	SS410M6H-22/WH	SS415M6H-22/WH	SS420M6H-22/WH
Type	Monocrystalline 166 x 83mm			
Rated Power ( $P_{mpp}$ )	405	410	415	420
Tolerance	0~+5W			
Rated Current ( $I_{mpp}$ )	10.83	10.90	10.98	11.05
Rated Voltage ( $V_{mpp}$ )	37.40	37.60	37.80	38.00
Short Circuit Current ( $I_{sc}$ )	11.30	11.36	11.42	11.48
Open Circuit Voltage ( $V_{oc}$ )	45.00	45.20	45.40	45.60
Module Efficiency (%)	20.28	20.53	20.78	21.03
NOCT (Nominal Operating Cell Temperature)	45±2°C			
Voltage Temperature Coefficient	-0.31%/°C			
Current Temperature Coefficient	+0.05%/°C			
Power Temperature Coefficient	-0.35%/°C			

Standard Test Environment : Irradiance 1000W/m<sup>2</sup>, Cell temperature 25°C, Spectrum AM1.5

### NOCT - ELECTRICAL VALUES

Rated Power ( $P_{mpp}$ )	301	305	309	312
Rated Current ( $I_{mpp}$ )	8.59	8.65	8.71	8.77
Rated Voltage ( $V_{mpp}$ )	35.10	35.30	35.50	35.60
Short Circuit Current ( $I_{sc}$ )	9.13	9.18	9.23	9.28
Open Circuit Voltage ( $V_{oc}$ )	42.20	42.40	42.60	42.80

Standard Test Environment : Irradiance 800W/m<sup>2</sup>, Ambient temperature 20°C, Spectrum AM1.5, Wind speed 1m/s

### MECHANICAL CHARACTERISTICS

Dimension (LxWxH)	Length: 1924mm (75,74 inch) Width: 1038mm (40,86 inch) Height: 30mm (1,18 inch)
Weight	22kg (48,50 lbs)
Glass	3.2mm High Transmission, Antireflection Coating
Cable	4.0mm <sup>2</sup> , Portrait: 300mm(+)/400mm(-) Landscape: 1400mm(+)/1400mm(-)
Junction Box	IP 68, 3 Bypass Diodes
Connector	MC4 Compatible
Number of Cells	132 (6x22)

### ABSOLUTE MAXIMUM RATING

Operating Temperature	From -40 to +85°C
Front Side Maximum Static Loading	5400Pa
Rear Side Maximum Static Loading	2400Pa
Maximum Series Fuse Rating	20A
Application level	Class A
Maximum System Voltage	DC 1500V

### PACKING CONFIGURATION

Container	Palle	40HQ
Pieces/Container	t 36	864

**Note:** This datasheet is not legally binding. Smart Solar Technologies reserves the right

### ELECTRICAL CHARACTERISTICS

