

410-440W

TOPCON

Full Black Bifacial

Half-Cut 16BB Module



**SMBB Technology**

Better light trapping and current collection to improve module power output and reliability.



**Higher Power Output**

Module power increases 5-25% generally, bringing significantly lower LCOE and higher IRR.



**PID Resistance**

Excellent Anti-PID performance guarantee via optimized mass-production process and materials control.



**Enhanced Mechanical Load**

**Certified to withstand:**  
wind load (2400 Pascal)  
and snow load (5400 Pascal).



12  
Year

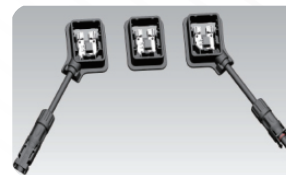
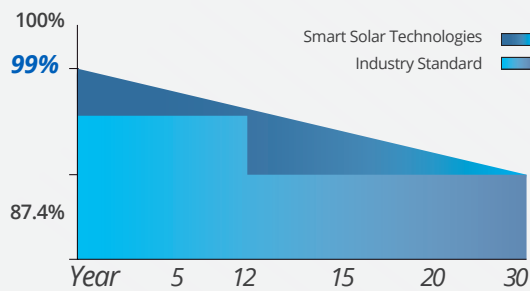
Product  
Warranty



30  
Year

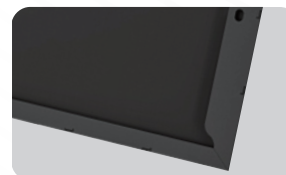
Linear  
Performance  
Warranty

Guaranteed Power



**JUNCTION BOX**

Waterproof protection grade:IP68  
Safety Level Class II  
Maximum System Voltage: 1500 V  
outstanding waterproof level  
Effectively resist harsh environments



**FRAME**

Strong mechanical load  
resistance up to 5400Pa  
Anodic oxidation layer resistant to  
chemical corrosion available



ELECTRICAL TYPICAL VALUES

Model	SS410M10GH-18/YH		SS415M10GH-18/YH		SS420M10GH-18/YH		SS425M10GH-18/YH		SS430M10GH-18/YH		SS435M10GH-18/YH		SS440M10GH-18/YH	
	STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT
Rated Power (Pmpp)	410	308	415	312	420	316	425	320	430	323	435	327	440	331
Rated Current (Imp)	13.09	10.50	13.17	10.56	13.25	10.63	13.32	10.68	13.40	10.75	13.48	10.81	13.56	10.88
Rated Voltage (Vmpp)	31.33	29.37	31.52	29.55	31.71	29.73	31.90	29.91	32.08	30.08	32.26	30.25	32.44	30.42
Short Circuit Current (Isc)	13.83±3%	11.16±3%	13.91±3%	11.23±3%	13.99±3%	11.29±3%	14.06±3%	11.35±3%	14.14±3%	11.42±3%	14.21±3%	11.49±3%	14.29±3%	11.56±3%
Open Circuit Voltage (Voc)	37.93±3%	36.03±3%	38.12±3%	36.21±3%	38.31±3%	36.39±3%	38.50±3%	36.57±3%	38.69±3%	36.75±3%	38.87±3%	36.93±3%	39.05±3%	37.11±3%
Module Efficiency (%)	21.00		21.25		21.51		21.76		22.02		22.28		22.54	

STC: irradiance 1000W/m<sup>2</sup>, AM 1.5, and cell temperature of 25°C

NMOT: irradiance 800W/m<sup>2</sup>, AM 1.5, ambient temperature 20°C, wind speed 1m/s

BIFACIALITY

Rated Power (Pmax)	454	460	465	471	476	482	488
Rated Current (Imp)	14.49	14.59	14.66	14.76	14.84	14.94	15.04
Rated Voltage (Vmpp)	31.33	31.52	31.71	31.90	32.08	32.26	32.44
Short Circuit Current (Isc)	15.30±3%	15.40±3%	15.47±3%	15.57±3%	15.65±3%	15.74±3%	15.83±3%
Open Circuit Voltage (Voc)	37.93±3%	38.12±3%	38.31±3%	38.50±3%	38.69±3%	38.87±3%	39.05±3%

BNPI: back irradiance 135W/m<sup>2</sup>, AM 1.5, and cell temperature of 25°C

TEMPERATURE RATINGS

Tolerance	0~+3w
NOCT	45±2°C
Voltage Temperature Coefficient	-0.250%/°C
Current Temperature Coefficient	+0.046%/°C
Power Temperature Coefficient	-0.300%/°C

PACKAGING CONFIGURATION

Container	20' GP	40' HQ
Pieces/Container	222	962
Pallet/Container	6	26

ABSOLUTE MAX RATING

Operating Temperature	From -40 to +85°C
Hail Diameter @ 80km/h	Up to 25mm
Front Side Maximum Static Loading	5400Pa
Rear Side Maximum Static Loading	2400Pa
Maksimum Series Fuse Rating	30A
Maksimum System Voltage	DC 1500V

MECHANICAL CHARACTERISTICS

Dimension (L x W x H)	Length: 1722mm Width: 1134mm Height: 30mm
Weight	24.70kg
Cell Type	182x91mm N Type Bifacial Mono
No. of Cells	108(12x9)
Front Glass	2.0mm AR coating tempered glass
Back Glass	2.0mm glazed glass
Frame	Anodized aluminium alloy
Cable	4mm <sup>2</sup> , cable 35cm (Including MC4 connector) <small>*The requested cable length must be specified before the offer.</small>
Junction Box	IP 68 Rated

ELECTRICAL CHARACTERISTIC

