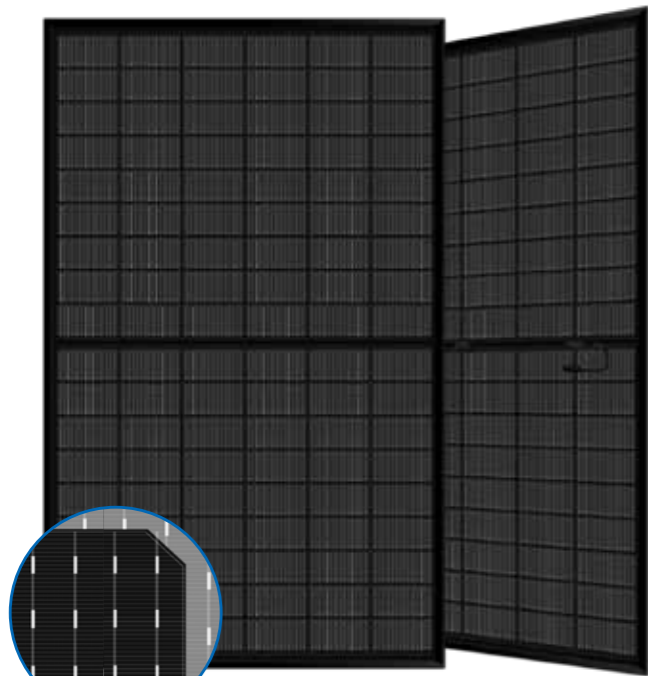


# TOPCon 191.6R1SB

## 440-460W

STM-440-460/108-R1SB



Double-sided cell technology

Higher power output **22.5%** up to

PID Resistance



Low-light Performance



Severe Weather Resilience



Durability Against Extreme Environmental Conditions



Double-sided power generation

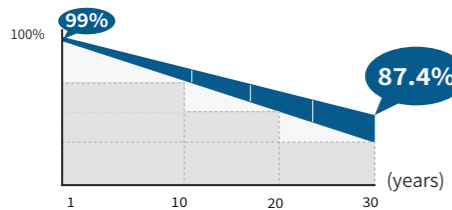


**12**  
YEARS

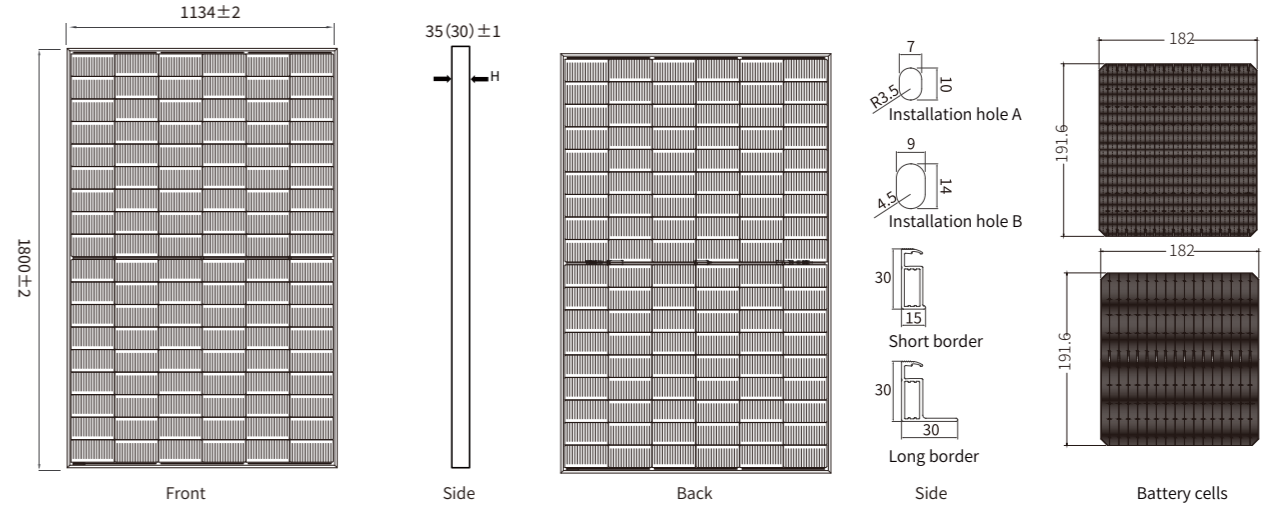
12-year Warranty for Materials and Processing

**30**  
YEARS

30-year Warranty for Extra Linear Power Output



ISO 9001:2015  
ISO 14001:2015  
ISO 45001:2018  
GB/T 29490-2013



Remark: customized frame color and cable length available upon request

Packaging(pcs/40HQ container)	13 meter semi hanging	Dimensions	Weight
31/744pcs 37/888pcs	31/868pcs 37/1036pcs	1800x1134x35(30)mm	24.5kg±3%

### MECHANICAL SPECIFICATION

Cell	N-type mono-crystalline
No.of cells	108(6x18)
Cable Length	300mm(+)/300mm(-)
Cable Cross Section Size	4mm <sup>2</sup> (IEC)
Junction Box	IP68,3 diodes
Connector	MC4 Compatible
STC:AM1.5 1000W/m <sup>2</sup> 25°C	NOCT:AM1.5 800W/m <sup>2</sup> 20°C 1m/s

### OPERATING PARAMETERS

Maximum System Voltage	1500VDC
Operating Temperature	-40°C~+85°C
Maximum Series Fuse	30A
Maximum StaticLoad,Front	5400Pa(112lb/ft <sup>2</sup> )
Maximum StaticLoad,Back	2400Pa(50lb/ft <sup>2</sup> )
Safety Class	Class II
Test Uncertainty for Pmax	±3%

### ELECTRICAL CHARACTERISTICS

Module Type	STM-440/108-R1SB		STM-445/108-R1SB		STM-450/108-R1SB		STM-455/108-R1SB		STM-460/108-R1SB	
	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Maximum Power(Pmax/W)	440	333	445	337	450	341	455	345	460	349
Open Circuit Voltage(Voc/V)	38.82	36.88	39.0	37.05	39.18	37.22	39.36	37.39	39.54	37.56
Short Circuit Current(Isc/A)	14.58	11.77	14.63	11.81	14.68	11.85	14.73	11.89	14.78	11.93
Voltage at Maximum Power(Vmp/V)	32.10	30.04	32.28	30.62	32.46	30.86	32.64	31.09	32.82	31.33
Current at Maximum Power(Impp/A)	13.71	11.10	13.79	11.02	13.87	11.05	13.95	11.09	14.03	11.13
Module Efficiency(%)	21.6		21.8		22.0		22.30		22.50	

### TEMPERATURE RATINGS

Norminal Operating Cell Temperature(NOCT)	45±2°C
Temperature Coefficient of Isc	+0.045%/°C
Temperature Coefficient of Voc	-0.275%/°C
Temperature Coefficient of Pmax	-0.350%/°C

### POWER OUTPUT OF THE FRONT AND REAR SIDE

	(REFERENCEDSPECIFICALLY TO 440WP FRONT)				
Power Gain (%)	5%	10%	15%	20%	25%
Maximum Power(Pmax/W)	462	484	506	528	550
Pmax Gain(%)	22.60%	23.70%	24.80%	25.70%	26.90%

### I-V CURVE(STM-440-460/108-R1SB)

