

# 525~550M

STM-525-550/144-S3

### Durability Against Extreme Environmental Conditions

High salt mist and ammonia resistance certified by TUV NORD.



### PID Resistance

Excellent Anti-PID performance guarantee limited power degradation for mass production. (Potential Induced Degradation) under the test conditions.



### High Efficiency

Higher module conversion efficiency (up to 21.30%) benefit from half cell structure (low resistance characteristic).



### Low-light Performance

Advanced glass and cell surface textured design ensure excellent performance in low-light environment.



### Severe Weather Resilience

Certified to withstand: Wind load (2400 pascal) and snow load (5400 pascal).



12-year Warranty for Materials and Processing



25-year Warranty for Extra Linear Power Output



STM-525-550/144-S3

# 525-550W

Half-Cell High Efficiency PV Module

**Weight**

28.6kg±3%

**Cells Type**

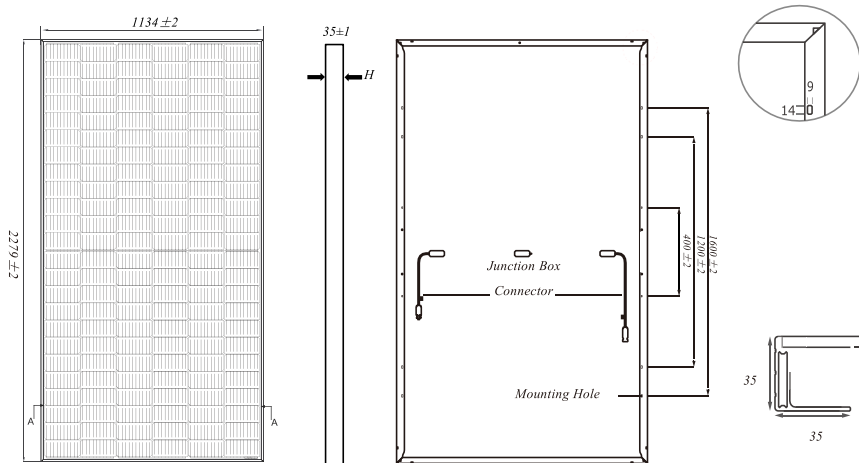
Mono 182×91mm

**Dimension (L×W×T)**

2279±2mm×1134±2mm×35±1mm

**Packaging**

31pcs/pallet, 620pcs/40HQ container



Front Side Back  
Remark: customized frame color and cable length available upon request

**MECHANICAL SPECIFICATION**

Cell	Mono
No.of cells	144(6x24)
Cable Length	300mm (+) /300mm (-)
Cable Cross Section Size	4mm <sup>2</sup> (IEC)
Junction Box	IP68,3 diodes
Connector	MC4 Compatible

**OPERATING PARAMETERS**

Maximum System Voltage	1500V DC
Operating Temperature	-40°C ~ +85°C
Maximum Series Fuse	25A
Maximum StaticLoad,Front	5400Pa(112lb/ft <sup>2</sup> )
Maximum StaticLoad,Back	2400Pa(50lb/ft <sup>2</sup> )
Safety Class	Class II

**ELECTRICAL CHARACTERISTICS**

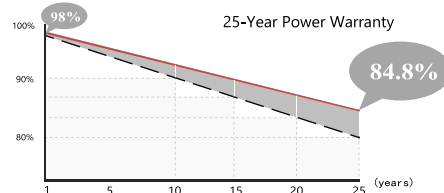
STC:AM1.5 1000W/m<sup>2</sup> 25°C NOCT:AM1.5 800W/m<sup>2</sup> 20°C 1m/s Test uncertainty for Pmax ±3%

Module Type	STM-525/144-S3		STM-530/144-S3		STM-535/144-S3		STM-540/144-S3		STM-545/144-S3		STM-550/144-S3	
	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Maximum Power (Pmax/W)	525	395.5	530	399.2	535	403.0	540	406.8	545	410.5	550	414.3
Open Circuit Voltage (Voc/V)	49.15	45.98	49.30	46.12	49.45	46.26	49.60	46.40	49.75	46.54	49.90	46.68
Short Circuit Current (Isc/A)	13.65	11.02	13.72	11.07	13.79	11.13	13.86	11.19	13.93	11.24	14.00	11.30
Voltage at Maximum Power (Vmp/V)	41.15	37.87	41.31	38.03	41.47	38.20	41.64	38.36	41.80	38.52	41.96	38.68
Current at Maximum Power (Imp/A)	12.76	10.44	12.83	10.50	12.90	10.55	12.97	10.60	13.04	10.66	13.11	10.71
Module Efficiency(%)	20.31		20.51		20.70		20.89		21.09		21.30	

**TEMPERATURE RATINGS**

Normal 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

**ADDITIONAL VALUE**



**I-V CURVE(STM-525-550/144-S3)**

