

# 435~455M

## STM-435-455/120-S3 FULL BLACK

### 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 21.02%) 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-435-455/120-S3

# 435-455W

Half-Cell High Efficiency PV Module

**Weight**

24.0kgs±3%

**Cells Type**

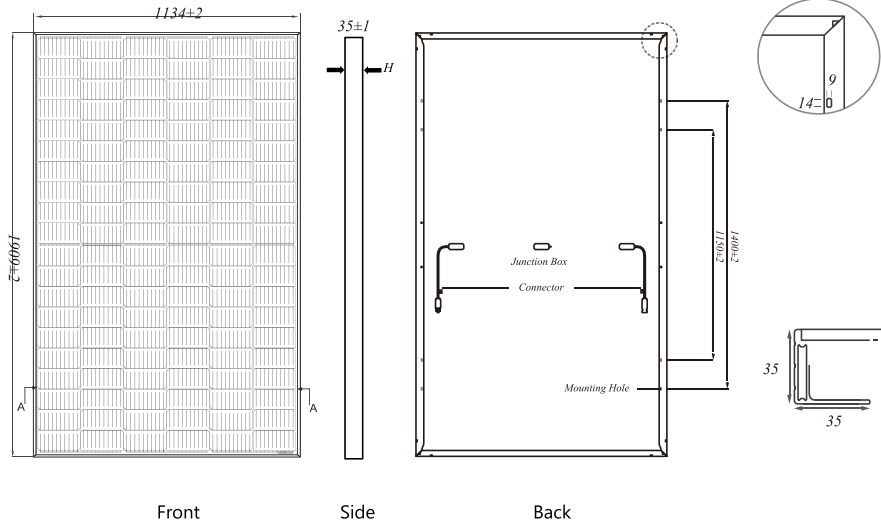
Mono 182x91mm

**Dimension(LxWxT)**

1909±2mmx1134±2mmx35±1mm

**Packaging**

31pcs/pallet, 744pcs/40HQ container



Remark: customized frame color and cable length available upon request

**MECHANICAL SPECIFICATION**

Cell	Mono
No.of cells	120(6x20)
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	1500VDC
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	ClassII

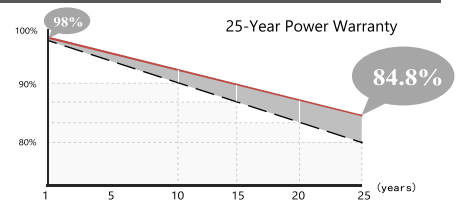
**ELECTRICAL CHARACTERISTICS** STC:AM1.5 1000W/m<sup>2</sup> 25 C NOCT:AM1.5 800W/m<sup>2</sup> 20 C 1m/s Test uncertainty for Pmax ±3%

Module Type	STM-435/120-S3		STM-440/120-S3		STM-445/120-S3		STM-450/120-S3		STM-455/120-S3	
	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Maximum Power(Pmax/W)	435	327.7	440	331.5	445	335.2	450	339	455	342.8
Open Circuit Voltage(Voc/V)	40.80	38.17	40.95	38.31	41.10	38.45	41.25	38.59	41.40	38.73
Short Circuit Current(Isc/A)	13.34	10.77	13.41	10.82	13.52	10.91	13.62	10.99	13.72	11.07
Voltage at Maximum Power(Vmp/V)	33.76	32.11	33.91	32.30	34.06	32.41	34.21	32.53	34.36	32.65
Current at Maximum Power(Imp/A)	12.89	10.21	12.98	10.26	13.07	10.34	13.16	10.42	13.25	10.50
Module Efficiency(%)	20.09		20.33		20.56		20.79		21.02	

**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

**ADDITIONAL VALUE**



**I-V CURVE(STM-435-455/120-S3)**

