

435~455M

STM-435-455/144-S2S

BIFACIAL MONO PERC

High Efficiency

Higher module conversion efficiency(up to 20.93%) benefit from half cell structure(low resistance characteristic).



Multi busbar technology

Better light utilization and current collection capabilities, effectively improving product power output and reliability.



Longer service life

Excellent double-sided warranty promises a 30-year power warranty of 0.45% linear power attenuation.



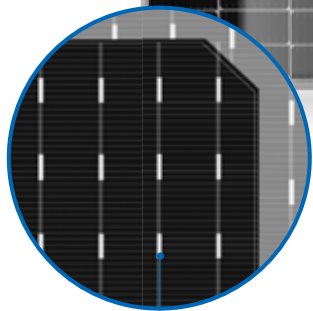
Severe Weather Resilience

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



Double-sided power generation

The double-sided power generation gain increases with the light received on the back side, up to 25%, which significantly reduces the LCOE.

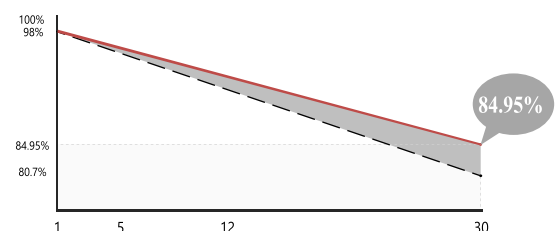


• Double-sided cell technology

12-year Warranty for Materials and Processing



30-year Warranty for Extra Linear Power Output



IEC61215, IEC61730, IEC61701, IEC62716, IEC62804

ISO 9001:2015: ISO Quality Management System

ISO 14001: 2015: ISO Environment Management System



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435-455W

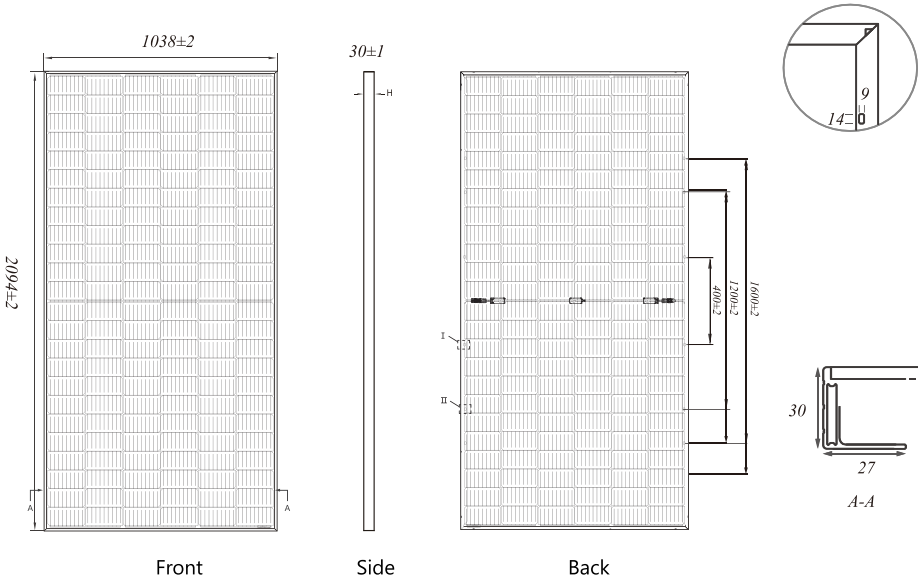
Half-Cell High Efficiency PV Module

Weight
28.1kgs±3%

Cells Type
Mono 166x83mm

Dimension(LxWxT)
2094±2mmx1038±2mmx30±1mm

Packaging
35pcs/pallet, 770pcs/40HQ container



Remark: customized frame color and cable length available upon request

MECHANICAL SPECIFICATION				OPERATING PARAMETERS			
Cell	Mono			Maximum System Voltage	1500VDC		
No.of cells	144(6x24)			Operating Temperature	-40℃~+85℃		
Cable Length	300mm(+)/300mm(-)			Maximum Series Fuse	25A		
Cable Cross Section Size	4mm²(IEC)			Maximum StaticLoad,Front	5400Pa(112lb/ft²)		
Junction Box	IP68,3 diodes			Maximum StaticLoad,Back	2400Pa(50lb/ft²)		
Connector	MC4 Compatible			Safety Class	ClassII		

ELECTRICAL CHARACTERISTICS STC:AM1.5 1000W/m² 25℃ NOCT:AM1.5 800W/m² 20℃ 1m/s Test uncertainty for Pmax ±3%											
Module Type	STM-435/144-S2S		STM-440/144-S2S		STM-445/144-S2S		STM-450/144-S2S		STM-455/144-S2S		
Testing Condition	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	
Maximum Power(Pmax/W)	435	323.6	440	327.4	445	331.1	450	334.8	455	338.5	
Open Circuit Voltage(Voc/V)	48.96	46.13	49.16	46.31	49.36	46.50	49.56	46.69	49.76	46.88	
Short Circuit Current(Isc/A)	11.35	9.17	11.42	9.22	11.49	9.28	11.56	9.34	11.63	9.39	
Voltage at Maximum Power(Vmp/V)	40.81	37.60	41.01	37.80	41.21	37.99	41.40	38.19	41.59	38.38	
Current at Maximum Power(Imp/A)	10.66	8.61	10.73	8.66	10.80	8.71	10.87	8.77	10.94	8.82	
Module Efficiency(%)	20.01		20.24		20.47		20.70		20.93		

ELECTRICAL CHARACTERISTICS WITHDIFFERENT REAR SIDE POWER GAINS						TEMPERATURE RATINGS	
(REFERENCEDSPECIFICALLY TO 450WP FRONT)						Norminal Operating Cell Temperature(NOCT)	45±2℃
Maximum Power(Pmax/W)	5%	10%	15%	20%	25%	Temperature Coefficiency of Isc	+0.048%/℃
Maximum Power(Pmax/W)	473	495	518	540	563	Temperature Coefficiency of Voc	-0.280%/℃
Pmax Gain(%)	22.07%	23.16%	24.20%	25.24%	25.28%	Temperature Coefficiency of Pmax	-0.350%/℃

I-V CURVE(STM-435-455/144-S2S)

