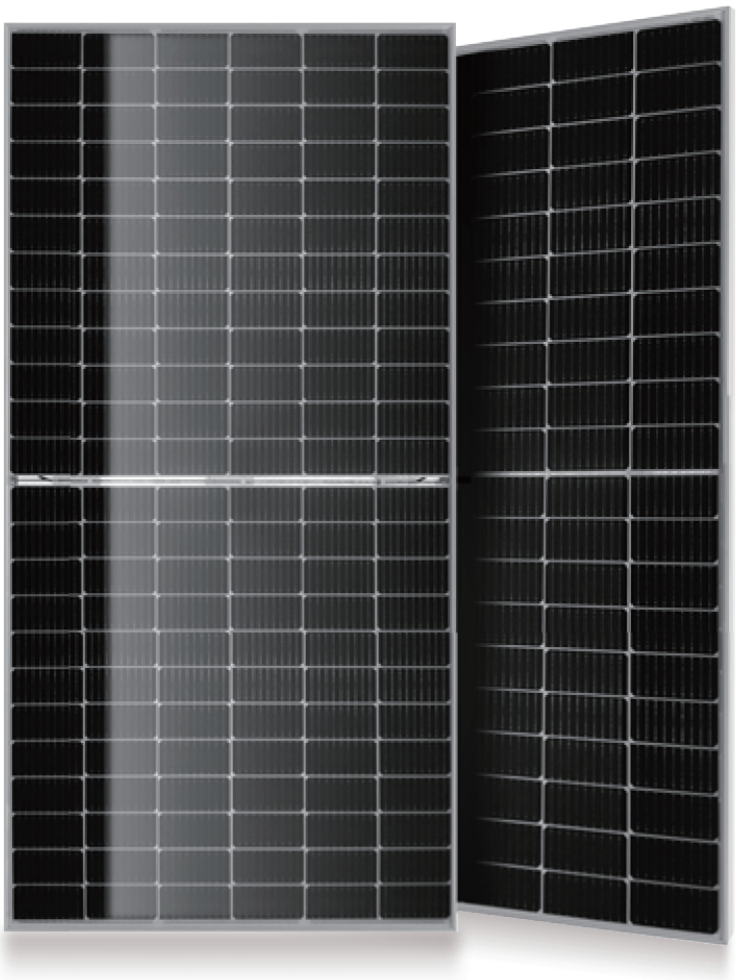
Schutten solar

166 Bifacial Solar Module



High Efficiency

Higher module conversion efficiency 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

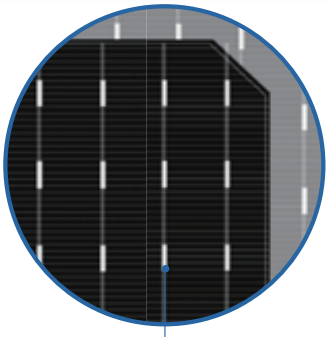
Excellent double-sided warranty promises a 30-year power warranty of 0.45% linear power attenuation.

Severe Weather Resilience

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

Double-sided power generation

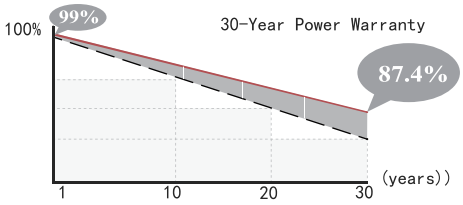
The double-sided power generation gain increases with the light received on the back side, up to 25%, which significantly reduces the LCOE.



Double-sided cell technology

12-year Warranty for Materials and Processing **12**

30-year Warranty for Extra Linear Power Output **30**



IEC61215, IEC61730, IEC61701, IEC62716,IEC62804

ISO 9001:2015: ISO Quality Management System

ISO 14001: 2015: ISO Environment Management System

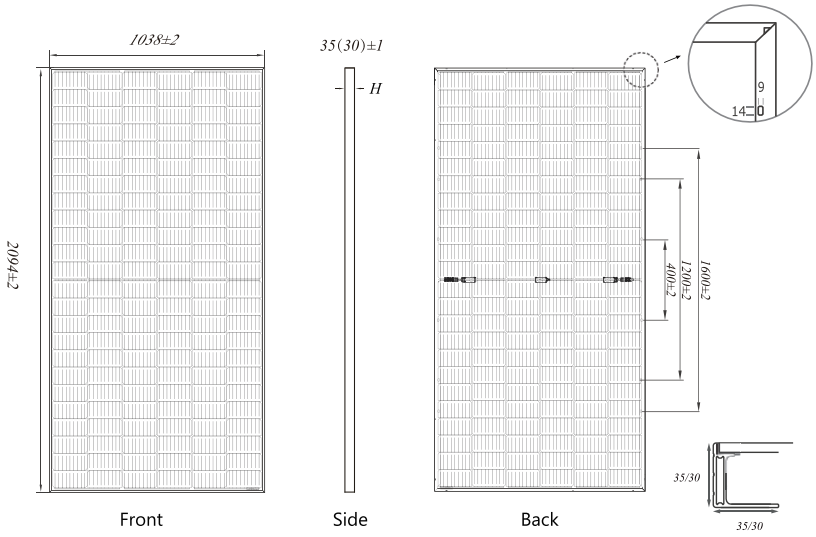
ISO 45001: 2018: ISO Occupational Health and Safety Management Systems

435-455W

STM435-455/144-S2S

Half-Cut Cell High Efficiency Bifacial PV Module

Weight	Dimension(LxWxT)
28.1kgs±3%	2094x1038x35(30)mm
Cells Type	Packaging(pcs/40HQ container)
Mono 166-9BB	31/737pcs 37/869pcs



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	4mm²(IEC)
Junction Box	IP68,3 diodes
Connector	MC4 Compatible

OPERATING PARAMETERS

Maximum System Voltage	1500VDC
Operating Temperature	-40℃~+85℃
Maximum Series Fuse	20A
Maximum StaticLoad,Front	5400Pa(112lb/ft²)
Maximum StaticLoad,Back	2400Pa(50lb/ft²)
Safety Class	Class Ⅱ

ELECTRICAL CHARACTERISTICS

STC:AM1.5 1000W/m² 25℃ NOCT:AM1.5 800W/m² 20℃ 1m/s Test uncertainty for Pmax ±3%

Module Type	STM435/144-S2S		STM440/144-S2S		STM445/144-S2S		STM450/144-S2S		STM455/144-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	49.40	46.54	49.56	46.69	49.70	46.82	49.85	46.96
Short Circuit Current(Isc/A)	11.35	9.17	11.28	9.11	11.32	9.14	11.36	9.18	11.41	9.22
Voltage at Maximum Power(Vmp/V)	40.81	37.60	40.92	38.27	41.21	38.57	41.52	38.86	41.82	39.12
Current at Maximum Power(Imp/A)	10.66	8.61	10.76	8.55	10.80	8.58	10.84	8.62	10.92	8.65
Module Efficiency(%)	20.01%		20.24%		20.47%		20.70%		20.93%	

POWER OUTPUT OF THE FRONT AND REAR SIDE

(REFERENCEDSPECIFICALLY TO 450WP FRONT)

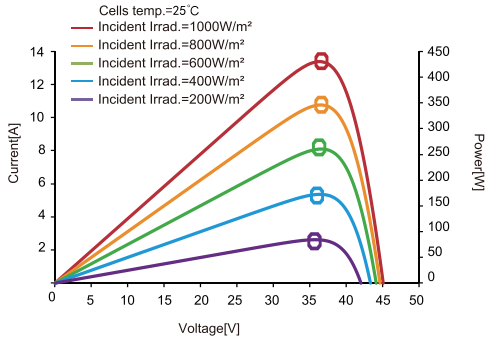
Power Gain (%)	5%	10%	15%	20%	25%
Maximum Power(Pmax/W)	473	495	518	540	563
Pmax Gain(%)	22.07%	23.16%	24.20%	25.24%	25.28%

TEMPERATURE RATINGS

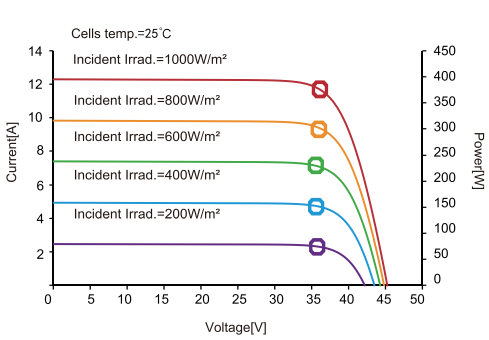
Norminal Operating Cell Temperature(NOCT)	45±2℃
Temperature Coefficient of Isc	+0.048%/℃
Temperature Coefficient of Voc	-0.280%/℃
Temperature Coefficient of Pmax	-0.350%/℃

I-V CURVE(STM435-455/144-S2S)

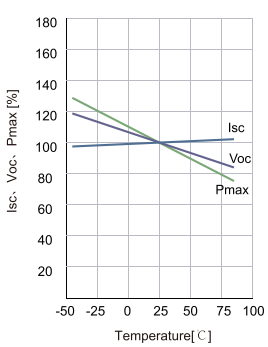
Power-Voltage Curve



Current-Voltage Curve



Isc、Voc、Pmax-Temperature Curve



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