

STM-XXX/144-S1 9BB Series 400W-420W

25
linear power
output warranty

12
years

Guarantee on
product
Material and



9 Busbar Solar Cell

9 Busbar solar cell adopts new technology to improve the efficiency of modules, offers a better aesthetic appearance, making it perfect for rooftop installation.



High Efficiency

Higher module conversion efficiency (up to 20.9%) benefit from half cell structure (low resistance characteristic).



PID Resistance

Excellent Anti-PID performance guarantee limited power degradation for mass production.



Low-light Performance

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



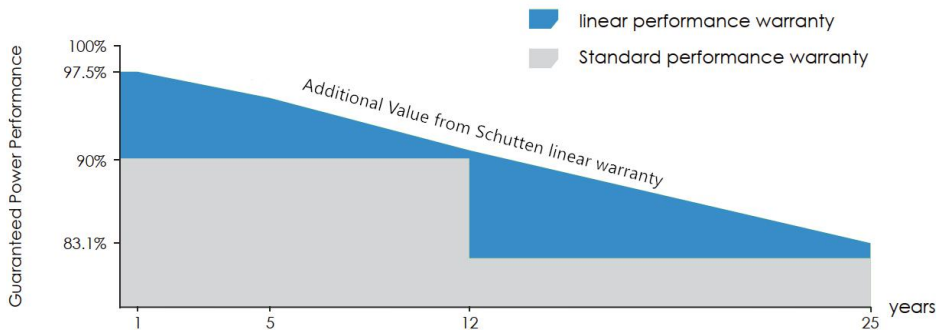
Severe Weather Resilience

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



Durability Against Extreme Environmental Conditions

High salt mist and ammonia resistance certified by TUV NORD.



Office(Changzhou): Room 1406, Block B, No. 88 Middle of Tongjiang RD (Wanda Plaza), Changzhou City, Jiangsu, China, 213001

Office(Nanjing): Room 1812, Suite A, No. 102 Jiangdong Road, Wanda Plaza, Nanjing City, Jiangsu, China, 210019

Factory(Chuzhou): Weisan Rd, Quanjiao Economic Development Area, Chuzhou City, Anhui Province, China, 239500

Factory(Thailand): 41/9 moo. 8 T. Bowin, A. Sriracha, Chonburi, Thailand, 20230



Schutten solar

Tel: +86 25-86816810

+86 550-2309825

+86 519-89886585

Mail: info@schutten.cn

Website: www.schutten-solar.com

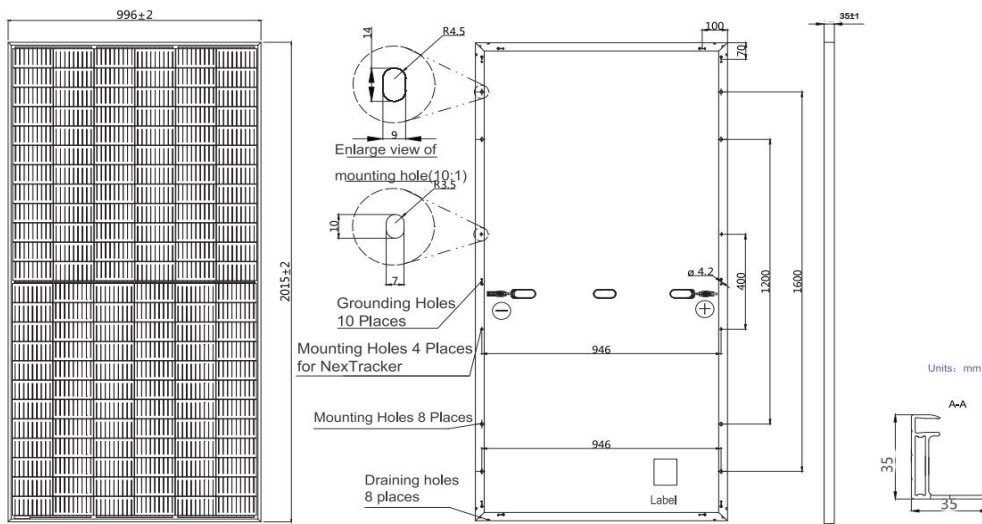
Electrical Characteristics at STC

Module Type	STM-400/144-S1	STM-405/144-S1	STM-410/144-S1	STM-415/144-S1	STM-420/144-S1
Maximum Power (Pmax)	400	405	410	415	420
Open-circuit Voltage (Voc)	49.58	49.86	50.12	50.41	50.70
Maximum Power Voltage (Vmp)	41.33	41.60	41.88	42.18	42.47
Short-circuit Current (Isc)	10.33	10.39	10.45	10.51	10.46
Maximum Power Current (Imp)	9.68	9.74	9.79	9.84	9.89
Module Efficiency STC (%)	19.90	20.20	20.40	20.70	20.90
Power Tolerance	0-+5W				
Temperature Coefficient of Isc (α -Isc)	+0.044%/°C				
Temperature Coefficient of Voc (β -Voc)	-0.272%/°C				
Temperature Coefficient of Pmax (γ -Pmp)	-0.350%/°C				
STC	☀ Irradiance 1000W/m ² 🌡 Cell Temperature 25°C 🌞 AM=1.5				

Electrical Characteristics at NOCT

Module Type	STM-400/144-S1	STM-405/144-S1	STM-410/144-S1	STM-415/144-S1	STM-420/144-S1
Rated Max Power (Pmax)	302	306	310	314	318
Open-circuit Voltage (Voc)	46.41	46.66	46.91	47.16	47.38
Maximum Power Voltage(Vmp)	38.65	38.90	39.16	39.41	39.60
Short-circuit Current (Isc)	8.25	8.31	8.36	8.41	8.46
Maximum Power Current (Imp)	7.81	7.87	7.92	7.97	# 8.03
NOCT	☀ Irradiance 800W/m ² 🌡 Cell Temperature 20°C 🌞 AM=1.5 🌬 Wind Speed=1m/s				

Mechanical Diagrams



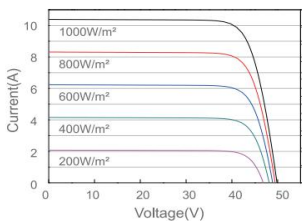
Remark: customized frame color and cable length available upon request

Specifications

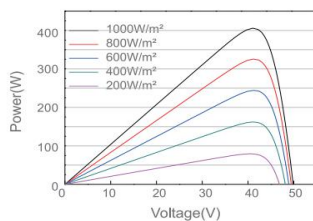
Cell		Mono
No. of cells	144(6x24)	
Dimensions	2015±2mm x996±2mm x 35±1mm	
Weight	22.7kgs±3%	
Cable Cross Section Size	4mm ² (IEC)	
Junction Box	IP67,3diodes	
Connector	MC4	
Packaging Configuration	31pcs/Pallet, 744pcs/40ft container	
Characteristics		
Maximum System Voltage	1000/1500V DC	
Operating Temperature	-40°C ~ +85°C	
Maximum Series Fuse	20A	
Maximum Static Load,Front	5400Pa(112lb/ft ²)	
Maximum Static Load,Back	2400Pa(50lb/ft ²)	
Safety Class	Class II	

Characteristics

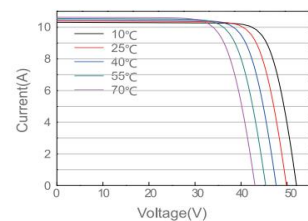
Current-Voltage Curve STM-405/144-S1



Power-Voltage Curve STM-405/144-S1



Current-Voltage Curve STM-405/144-S1



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