



Sunpro **Max** Series


TOPCon Bifacial Colorful Module(RAL4004 Red)


400-415W
Power Output

20.77%
Module Efficiency

 Seamless color integration

 Customized color

 Improved low-light performance

 Excellent bifacial performance

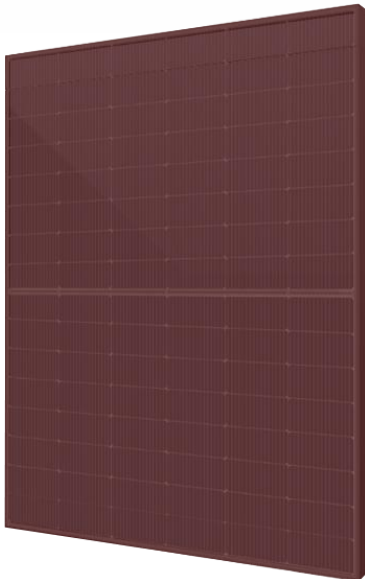
CERTIFICATE



WARRANTY

Quality Guarantee **25** years

Power Warranty **30** years

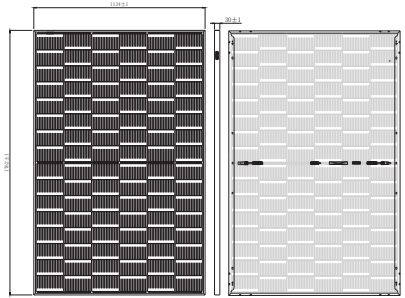


SPDG (400/415W)-N96R12

STRUCTURAL CHARACTERISTICS

Module size (L*W*H)	1762×1134×30mm
Weight	23.80kg
Cell	96 cells,N-Type Crystalline Silicon,105mm×182.2mm
Front glass	2.0mm,Anti-reflection coating colorful glass
Back glass	2.0mm,Heat strengthened glass
Frame	Anodized aluminum alloy
Junction box	IP68, 3 bypass diodes
Output wire	4mm ²
Wire length	Line length 1100mm/customized
Connector	Stäubli MC4-EVO2A
Packing Specification	37 pcs/Pallet ; 962 pcs/40' HQ

MODULE DIMENSIONS(MM)



ELECTRIC CHARACTERISTICS

Model of modules	SPDG400-N96R12		SPDG405-N96R12		SPDG410-N96R12		SPDG415-N96R12	
	STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT
Power (Pmax/W)	400	301.30	405	305.10	410	308.90	415	312.60
Maximum power voltage (Vmp)	28.39	26.60	28.69	26.80	29.00	27.10	29.31	27.30
Maximum power current (Imp)	14.09	11.34	14.12	11.38	14.14	11.41	14.16	11.45
Open circuit voltage (Voc)	34.23	32.20	34.53	32.50	34.83	32.80	35.13	33.00
Short circuit current (Isc)	14.94	12.06	14.97	12.09	15.00	12.11	15.03	12.14
Module efficiency	20.02%		20.27%		20.52%		20.77%	

STC (Electrical parameters at standard test conditions (STC:AM=1.5, 1000W/m², Cells Temperature25°C)

NMOT (Irradiance 800W/m², Ambient Temperature 20°C, AM1.5, Wind Speed 1m/s)

ELECTRICAL CHARACTERISTICS WITH 15% REAR SIDE POWER GAIN

Front power Pmax/W	440.00	445.50	451.00	456.50
Maximum power voltage (Vmp)	28.39	28.69	29.00	29.31
Maximum power current (Imp)	15.50	15.53	15.55	15.57
Open circuit voltage (Voc)	34.23	34.53	34.83	35.13
Short circuit current (Isc)	16.43	16.47	16.50	16.53

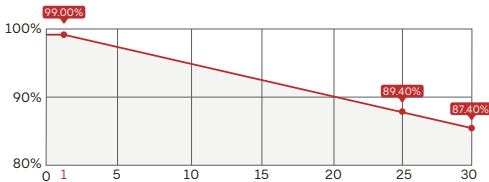
OPERATING PARAMETERS

Power tolerance (W)	(0~+5W)
Maximum system voltage (V)	1500V
Maximum rated fuse current (A)	35A
Current operating temperature (C)	-40~+85°C
Mechanical load	+5400Pa/-2400Pa

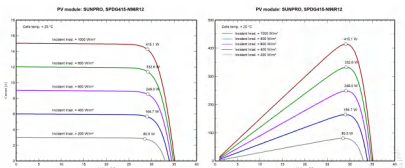
TEMPERATURE CHARACTERISTICS

Temp. Coeff. of Isc (TK Isc)	0.045% / °C
Temp. Coeff. of Voc (TK Voc)	-0.25% / °C
Temp. Coeff. of Pmax (TK Pmax)	-0.30% / °C
Normal Operating Cell Temperature	45±2°C

LINEAR PERFORMANCE GUARANTEE FOR 30 YEARS



I-V CHARACTERISTICS AT DIFFERENT IRRADIATION



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*The above parameters are for reference only, and the actual parameters of the factory shall prevail