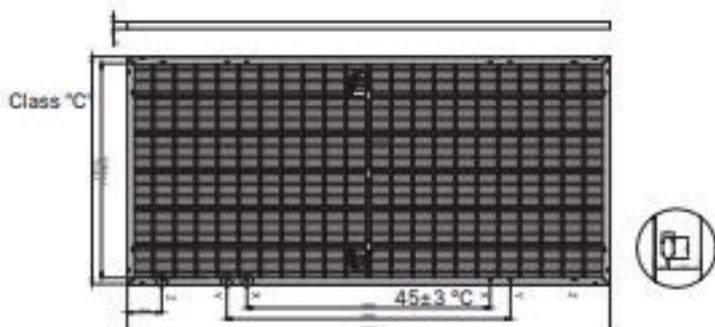


# N-TOPCon G12R 600W ~ 620W

## Mechanical Specifications



Size	2382 x 1134 x 35 mm
Weight	Approximately 33.5kg
Solar Cell	N-TOPCon double-sided single crystal, (182 x 105mm) 132Cell
Front	3.2mm high transmittance tempered glass (anti-reflective coating)
Back	Transparent grid backsheet
Frame	Anodized aluminum alloy
Junction Box	IP68, 3 bypass diodes
Cable	4mm <sup>2</sup> Solar cable, 1200mm
Connector	MC4 compatible

## Electrical Specifications

Items	SS-CM600TG		SS-CM605TG		SS-CM610TG		SS-CM615TG		SS-CM620TG	
	STC <sup>1</sup>	BNPI <sup>2</sup>								
Maximum Power Point Power (P <sub>max</sub> ) (W)	600	628.58	605	633.97	610	639.03	615	644.69	620	649.95
Open-Circuit Voltage (V <sub>oc</sub> ) (V)	47.04	47.20	47.19	47.35	47.33	47.49	47.48	47.64	47.63	47.79
Short-Circuit Current (I <sub>sc</sub> ) (A)	15.92	16.72	15.96	16.76	15.99	16.79	16.03	16.83	16.07	16.87
Maximum Power Point Voltage (V <sub>mp</sub> ) (V)	39.74	39.74	39.90	39.90	40.06	40.06	40.23	40.23	40.40	40.40
Maximum Power Point Current (I <sub>mp</sub> ) (A)	15.10	15.82	15.17	15.89	15.23	15.95	15.30	16.03	15.36	16.09
Efficiency (Eff) (%)	22.21	23.27	22.40	23.47	22.58	23.66	22.77	23.87	22.95	24.06

STC<sup>1</sup>: Irradiance 1,000W/m<sup>2</sup>, Module Temperature 25°C, AM=1.5 (IEC 60904), Measurement Tolerance: ±3%

BNPI: Irradiance 1,000W/m<sup>2</sup> + φ x 135W/m<sup>2</sup>, Module Temperature 25°C, AM=1.5 (IEC 60904-1-2), Bifacial Generation may vary depending on the surrounding environment (albedo).

## System Design Specifications

Maximum System Voltage	1500V	Rated Serial Fuse	30A
Maximum Test Load	5400 / 2400 Pa	Module Operating Temperature	-40~+85 °C
Light Reflectance (Visible Spectrum)	Testing	LID / PID TEST	Testing
Fire Safety Classification	Class C		

## Temperature Coefficients

Short-Circuit Current (I <sub>sc</sub> ) [A]	0.046 % / °C	Open-Circuit Voltage (V <sub>oc</sub> ) [V]	-0.26 % / °C
Maximum Power Point Power (P <sub>max</sub> ) [W]	-0.30 % / °C	Nominal Operating Cell Temperature (NOCT)	45±3 °C

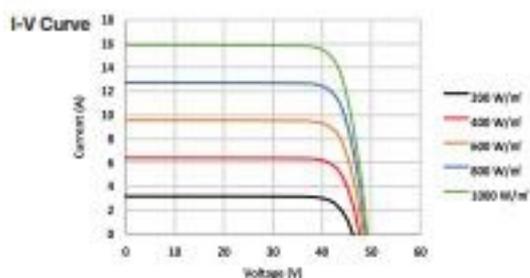
## Packaging Specifications

Packaging Size	2402 x 1154 x 1110mm	Vehicle Loading(Pallets / Loading Capacity)	
Packaging Weight	868kg	5-ton truck (Long axis)	12 pallets / 300 sheets
Pallets	25 sheets	11-ton truck	14 pallets / 350 sheets
Vehicle Loading	2-stage horizontal loading	18-ton truck	16 pallets / 400 sheets

- Note**
- This product must be installed according to Shinsung E&G's official installation manual.
  - For information regarding the official installation manual, please contact Shinsung E&G.
  - The data in this specification sheet is subject to change without prior notice.
  - The copyright of this specification sheet belongs to Shinsung ENTEC, and unauthorized reproduction and distribution are prohibited.

## Performance Guarantee

<b>Product Warranty</b>	12 years product warranty
<b>Performance Warranty</b>	99% output guaranteed for 1 year 87.4% of output guaranteed for 2 to 30 years Up to 0.4% degradation per year



If you have any inquiries about Shinsung E&G, please contact us at the following address: ● AS inquiry 063-543-7811

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