

Highest-Efficiency Module Technology  
**TOPCON SOLAR TECHNOLOGY – MADE IN INDIA**

## 132 HC G12R GG BIFACIAL

# 610 – 630 Wp

## 23.30% Max. Module Efficiency

## 30 Years Linear Performance Warranty

**TOPCon Cell Technology:** Lower LID and reduced annual degradation for sustained high energy output

**Positive power tolerance:** 0 ~ +4.99 W output, assured rated power

**High Bifaciality (80 ±5%):** Enhanced rear-side power generation from reflected light

**Bifacial Design:** Dual-glass design for increased energy yield

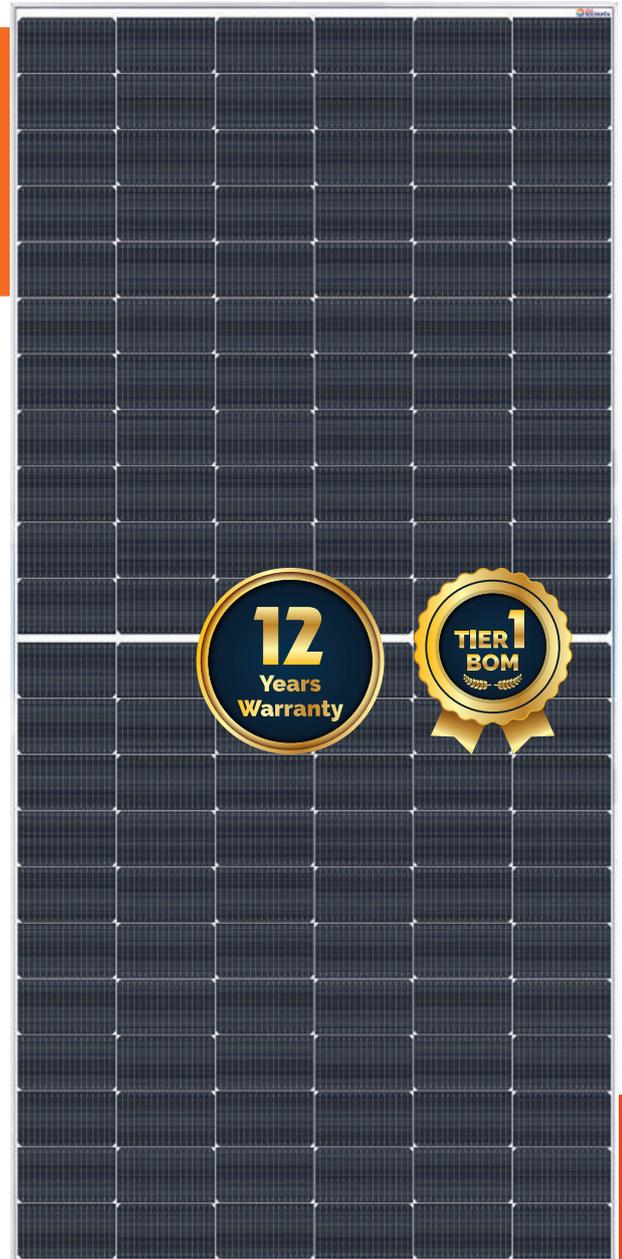
**Optimised Temperature Coefficient:** Reliable performance even under high operating temperatures.

**Strong Low-Light Performance:** Higher power generation in cloudy, foggy, and low-irradiance conditions.

**Lower LCOE & Faster ROI:** Higher energy yield with optimised BOS costs.

**Advanced Manufacturing & QA:** Fully automated, AI-integrated production with 100% inline Hi-Pot and multi-stage EL testing using a Tier-1 BOM

**Warranty:** Offering an industry-leading product and performance warranty of 30 years and 12 years product warranty



## Qualification & Certifications

IEC 61215 / IEC 61730 / IS 14286 / IS 61730

\*IEC 61701 / \*IEC 61716 / \*IEC 60068

ISO 14001 / ISO 9001 / ISO 45001



\*Under Process



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132 HC G12R GG BIFACIAL

RPSG132G12RTGXXX (XXX= 610 - 630WP)

Electrical Properties: Front Side @ STC

Peak power P <sub>mp</sub> (W)	610	615	620	625	630
V <sub>mp</sub> (V)	41.96	42.30	42.64	42.99	43.33
I <sub>mp</sub> (A)	14.69	14.81	14.93	15.05	15.17
V <sub>oc</sub> (V)	48.77	49.17	49.57	49.97	50.37
I <sub>sc</sub> (A)	15.94	16.07	16.20	16.33	16.46
Module efficiency (%)	22.6%	22.8%	23.0%	23.1%	23.3%

Bifacial Power Output

Module Type	610	615	620	625	630
+10% (BNPI) P <sub>mp</sub> (W)	671	677	682	688	693
+20% P <sub>mp</sub> (W)	732	738	744	750	756
+30% P <sub>mp</sub> (W)	793	800	806	813	819

STC: 1000 W/m<sup>2</sup>, AM 1.5, Cell 25°C; BNPI: front 1000 W/m<sup>2</sup>, rear 135 W/m<sup>2</sup>

Except P<sub>mp</sub>, all other parameters have tolerance of ± 3%. Measurement uncertainty ≤ 3%

Mechanical Properties

Cells	Cell type	Mono-crystalline, n-type TOPCon
	Amount	132 half cells
Mechanical	Dimension	2382 mm x 1134 mm x 30 mm
	Front & Rear cover	2 mm heat-strengthened glass
Data	Encapsulant	EPE/EVA
	Weight	34 kg
Mounting	Mounting holes	8pcs, 9 mm diameter & 14 mm long
	Position	700 mm, and 395 mm from center
Junction	Design	3-split, IP68
	Cable	300 mm length and can be customized
Box	Connector	MC4/MC4 compatible
	Rated current	35 A

System Properties

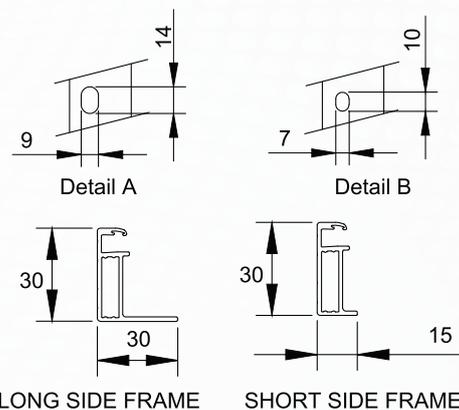
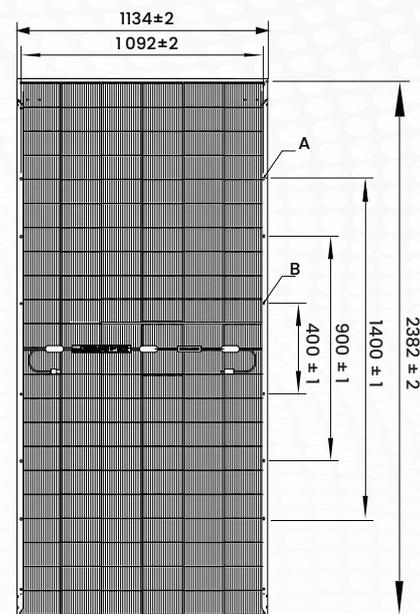
Operating Temperature	-40 to +80°C
Maximum system voltage	1500 V DC (IEC)
Maximum series fuse rating	35 A
Power tolerance	0 to +5W
Fire rating	Class C
Appliance class	II
Maximum mechanical load	-2400 Pa / +5400 Pa

Temperature Coefficient

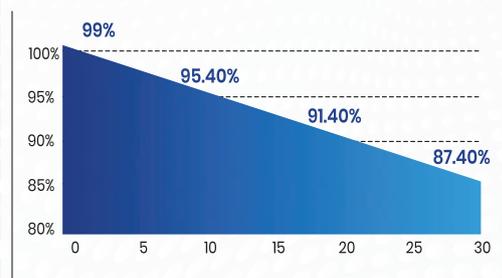
Temp. coefficient of P <sub>max</sub>	-0.30%/K
Temp. coefficient of V <sub>oc</sub> (V)	-0.25%/K
Temp. coefficient of I <sub>sc</sub> (A)	0.045%/K
Nominal operating cell temperature (NOCT)	45 ± 2

\*RPSG Solvanta reserves the right to modify the specifications and features outlined in this datasheet at any time without prior notice.

Mechanical Drawing



Linear Performance Warranty



Packaging Configuration

Module per pallet: 36 pieces,  
Module per 40'HQ container: 20 pallets, 720

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