

# HYUNDAI SOLAR MODULE

**RG**  
SERIES

**Mono-Crystalline Type**

HiE-S310RG HiE-S315RG



**60**

Cells



For Both  
Residential &  
Commercial  
Applications



More Power  
Generation  
In Low Light



**PERC Technology**

PERC Technology provides ultra-high efficiency with better performance in low irradiation. Maximizes installation capacity in limited space.



**Anti-LID / PID**

Both LID(Light Induced Degradation) and PID(Potential Induced Degradation) are strictly eliminated to ensure higher actual yield during lifetime.



**Mechanical Strength**

Tempered glass and reinforced frame design withstand rigorous weather conditions such as heavy snow and strong wind.



**Reliable Warranty**

Global brand with powerful financial strength provide reliable 25-year warranty.



**Corrosion Resistant**

Various tests under harsh environmental conditions such as ammonia and salt-mist passed.



**UL / VDE Test Labs**

Hyundai's R&D center is an accredited test laboratory of both UL and VDE.

## Hyundai's Warranty Provisions



- 12-Year Product Warranty
- On materials and workmanship



- 25-Year Performance Warranty
- Initial year: 97.0%
- Linear warranty after second year: with 0.7%p annual degradation, 80.2% is guaranteed up to 25 years

## About Hyundai Energy Solutions

Established in 1972, Hyundai Heavy Industries Group is one of the most trusted names in the heavy industries sector and is a Fortune 500 company. As a global leader and innovator, Hyundai Heavy Industries is committed to building a future growth engine by developing and investing heavily in the field of renewable energy.

As a core energy business entity of HHI, Hyundai Energy Solutions has strong pride in providing high-quality PV products to more than 3,000 customers worldwide.

## Certification



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## Electrical Characteristics

		Mono-Crystalline Module (HiE-S___RG)	
		310	315
Nominal Output (P <sub>mpp</sub> )	W	310	315
Open Circuit Voltage (V <sub>oc</sub> )	V	39.9	40
Short Circuit Current (I <sub>sc</sub> )	A	9.80	9.87
Voltage at P <sub>max</sub> (V <sub>mpp</sub> )	V	32.7	32.9
Current at P <sub>max</sub> (I <sub>mp</sub> )	A	9.48	9.57
Module Efficiency	%	18.94	19.24
Cell Type	-	Mono-Crystalline Silicon	
Maximum System Voltage	V	1,500	
Temperature Coefficient of P <sub>max</sub>	%/K	-0.390% / °C	
Temperature Coefficient of V <sub>oc</sub>	%/K	-0.290% / °C	
Temperature Coefficient of I <sub>sc</sub>	%/K	0.033% / °C	

\*All data at STC (Standard Test Conditions). Above data may be changed without prior notice.

## Mechanical Characteristics

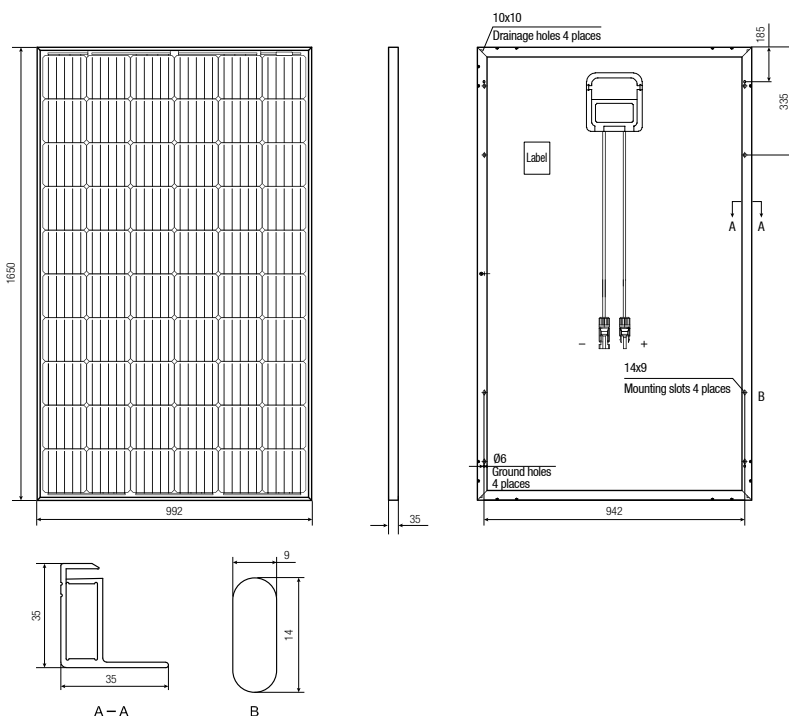
Dimensions	1,650×992×35mm (L×W×H)		
Weight	18.2kg		
Solar Cells	60pcs 156.75×156.75mm Monocrystalline solar 5BB PERC cells		
Output Cables	Length 900mm, 1×4mm <sup>2</sup>	Connector	Compatible with MC4
Junction Box	Rated current:13A, IP67, TUV&UL		
Bypass Diodes	3 bypass diodes to prevent power decrease by partial shade		
Construction	Front Glass : Transparent toughened safety glass, 3.2mm Encapsulation : EVA (Ethylene-Vinyl-Acetate) Backsheet : Composite film		
Frame	Anodized aluminum profile		

## Installation Safety Guide

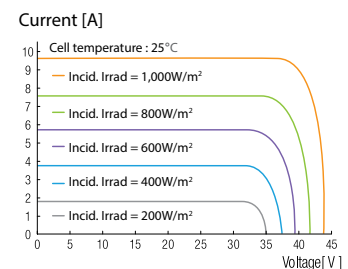
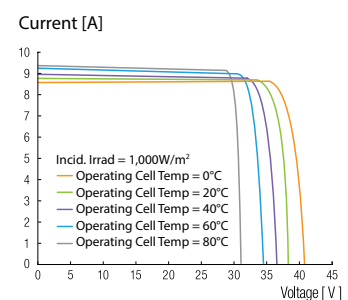
- Only qualified personnel should install or perform maintenance.
- Be aware of dangerous high DC voltage.
- Do not damage or scratch the rear surface of the module.
- Do not handle or install modules when they are wet.

Nominal Operating Cell Temperature	45 ± 2°C
Operating Temperature	-40 – 85°C
Maximum System Voltage	DC 1,500 V (IEC)
Maximum Reverse Current	20A
Maximum Surface Load Capacity	Front 5,400 Pa Rear 2,400 Pa

## Module Diagram (unit : mm)



## I-V Curves



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