

# HYUNDAI SOLAR MODULE

**RG**  
**BLACK**

## Mono-Crystalline Type

HiS-S290RG(BK)

HiS-S295RG(BK)

HiS-S300RG(BK)

HiS-S305RG(BK)

**60**

Cells



For Residential  
Applications



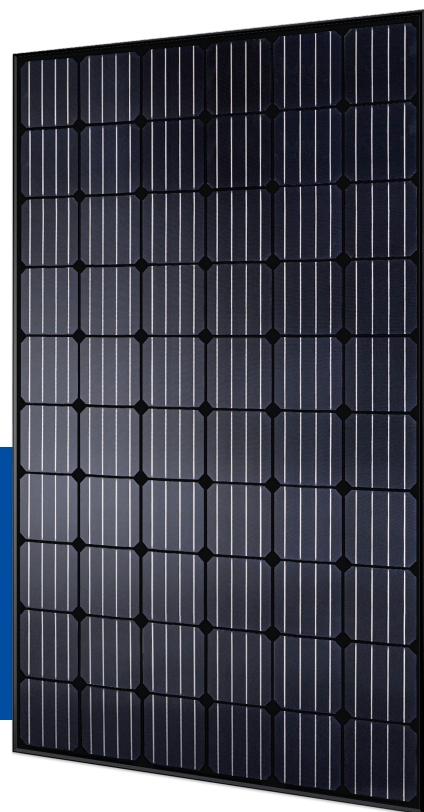
All Black Module  
For Sleek Design



More Power  
Generation  
In Low Light



Hyundai Cell



### PERL Technology

PERL 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 30-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



- 30-Year Performance Warranty
- Initial year: 97.6%
- Linear warranty after second year: with 0.6%p annual degradation, 80.2% is guaranteed up to 30 years

## About Hyundai Solar

Established in 1972, Hyundai Heavy Industries (HHI) is one of the most trusted names in the heavy industries sector with 48,000 employees and more than 40 Billion USD in annual sales (2015). 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.

Started as a core business division of HHI, Hyundai Solar (Hyundai Heavy Industries Green Energy) now stands as an independent company and an affiliate of HHI as from December 2016. We have strong pride in providing high-quality PV products to more than 3,000 customers worldwide.

## Certification



## Electrical Characteristics

		Mono-Crystalline Module (HIS-S___RG (BK))			
		290	295	300	305
Nominal Output (P <sub>mpp</sub> )	W	290	295	300	305
Open Circuit Voltage (V <sub>oc</sub> )	V	38.8	39.0	39.1	39.2
Short Circuit Current (I <sub>sc</sub> )	A	9.7	9.8	9.9	10.0
Voltage at P <sub>max</sub> (V <sub>mpp</sub> )	V	32.0	32.1	32.3	32.4
Current at P <sub>max</sub> (I <sub>mp</sub> )	A	9.1	9.2	9.3	9.4
Module Efficiency	%	17.7	18.0	18.3	18.6
Cell Type	-	6", mono-crystalline silicon			
Maximum System Voltage	V	1,000			
Temperature Coefficient of P <sub>max</sub>	%/K	-0.40			
Temperature Coefficient of V <sub>oc</sub>	%/K	-0.29			
Temperature Coefficient of I <sub>sc</sub>	%/K	0.039			

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

## Mechanical Characteristics

Dimensions	998 mm (39.29") (W) × 1,640 mm (64.57") (L) × 35 mm (1.38") (H)
Weight	Approx. 18.7 kg (41.2 lbs)
Solar Cells	60 cells in series (6 × 10 matrix) (Hyundai cell, Made in Korea)
Output Cables	4 mm <sup>2</sup> (12AWG) cables with polarized weatherproof connectors, IEC certified (UL listed), Length 1.0 m (39.4")
Junction Box	IP68, weatherproof, IEC certified (UL listed)
Bypass Diodes	3 bypass diodes to prevent power decrease by partial shade
Construction	Front : Anti-reflection coated glass, 3.2 mm (0.126") Encapsulant : EVA   Back Sheet : Weatherproof film
Frame	Clear anodized aluminum alloy type 6063 (Black Color)

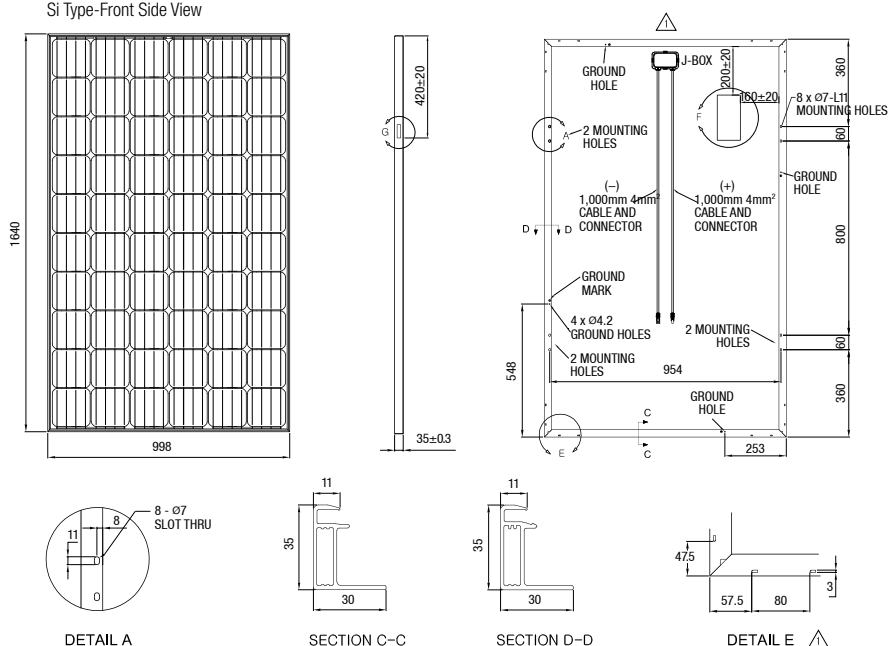
## Installation Safety Guide

- 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	46°C ± 2
Operating Temperature	-40 – 85°C
Maximum System Voltage	DC 1,000 V (IEC) DC 1,000 V (UL)
Maximum Reverse Current	15A (Up to 285W) 20A (Above 290W)

## Module Diagram (unit : mm)

Mono-Crystalline  
Si Type-Front Side View



## I-V Curves

