www.hhi-green.com/solar/en

Hyundai Solar Module

Hyundai Heavy Industries was founded in 1972 and is a Fortune 500 company. The company employs more than 48,000 people, and has a global leading 7 business divisions with sales of 60.2 Billion USD in 2012. As one of our core businesses of the company, Hyundai Heavy Industries is committed to develop and invest heavily in the field of renewable energy.
Hyundai Solar is the largest and the longest standing PV cell and module manufacturer in South Korea. We have 600MW of module production capacity and provide high-quality solar PV products to more than 3,000 customers worldwide. We strive to achieve one of the most efficient PV modules by establishing an R&D laboratory and investing more than 20 Million USD on innovative technologies.

MG-Series

Multi-crystalline Type
HiS-M240MG | HiS-M245MG | HiS-M250MG

Mono-crystalline Type
HiS-S255MG | HiS-S260MG | HiS-S265MG

Mechanical Characteristics

Dimensions	983 mm (38.7")(W) × 1,645 mm (64.76")(L) × 35 mm (1.38")(H)
Weight	Approx. 18.5 kg (40.8 lbs)
Solar cells	60 cells in series (6 ×10 matrix) (Hyundai cell, Made in Korea)
Output cables	4 mm^2 (12AWG) cables with polarized weatherproof connectors, IEC certified (UL listed), Length 1.0 m (39.4")
Junction box	IP65, weatherproof, IEC certified (UL listed)
Bypass diodes	3 bypass diodes to prevent power decrease by partial shade
Construction	Front : High transmission low-iron tempered glass, 3.2 mm (0.126") Encapsulant : EVA Back Sheet : Weatherproof film
Frame	Clear anodized aluminum alloy type 6063

High Quality

- IEC 61215 (Ed.2) and IEC 61730 by TÜV Rheinland
- UL listed (UL 1703), Class C Fire Rating
- Output power tolerance +3/-0 %
- ISO 9001:2000 and ISO 14001:2004 Certified
- Advanced Mechanical Test (5,400 Pa) Passed (IEC) / Mechanical Load Test (40 lbs/ft^2) Passed (UL)
- Ammonia Corrosion Resistance Test Passed
- IEC 61701 (Salt Mist Corrosion Test) Passed

Fast and Inexpensive Mounting

- Delivered ready for connection
- Pre-confectioned cables
- IEC (UL) certified and weatherproof connectors
- Integrated bypass diodes

Limited Warranty

- 10 years for product defect
- 10 years for 90 % of warranted min. power
- 25 years for 80 % of warranted min. power

※ **Important Notice on Warranty**
The warranties apply only to the PV modules with Hyundai Heavy Industries Co., Ltd.'s logo (shown below) and product serial number on it.

HYUNDAI
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Electrical Characteristics

| Multi-crystalline Type |

		HiS-M□□□MG		
		240	245	250
Nominal output (Pmpp)	W	240	245	250
Voltage at Pmax (Vmpp)	V	30.5	30.7	30.9
Current at Pmax (Impp)	A	7.9	8.0	8.1
Open circuit voltage (Voc)	V	37.7	38.0	38.2
Short circuit current (Isc)	A	8.3	8.4	8.6
Output tolerance	%	+3/-0		
No. of cells & connections	pcs	60 in series		
Cell type	-	6" Multi-crystalline silicon (Hyundai cell, Made in Korea)		
Module efficiency	%	14.8	15.2	15.5
Temperature coefficient of Pmpp	%/K	-0.43	-0.43	-0.43
Temperature coefficient of Voc	%/K	-0.32	-0.32	-0.32
Temperature coefficient of Isc	%/K	0.048	0.048	0.048

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

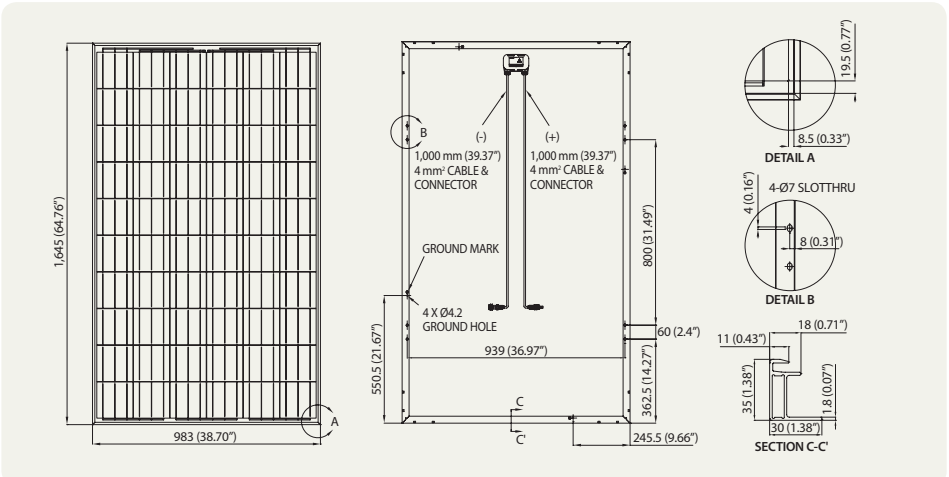
| Mono-crystalline Type |

		HiS-S□□□MG		
		255	260	265
Nominal output (Pmpp)	W	255	260	265
Voltage at Pmax (Vmpp)	V	30.8	31.0	31.2
Current at Pmax (Impp)	A	8.3	8.4	8.4
Open circuit voltage (Voc)	V	37.7	37.8	37.9
Short circuit current (Isc)	A	8.8	8.9	9.0
Output tolerance	%	+3/-0		
No. of cells & connections	pcs	60 in series		
Cell type	-	6" Mono-crystalline silicon (Hyundai cell, Made in Korea)		
Module efficiency	%	15.8	16.1	16.4
Temperature coefficient of Pmpp	%/K	-0.45	-0.45	-0.45
Temperature coefficient of Voc	%/K	-0.33	-0.33	-0.33
Temperature coefficient of Isc	%/K	0.032	0.032	0.032

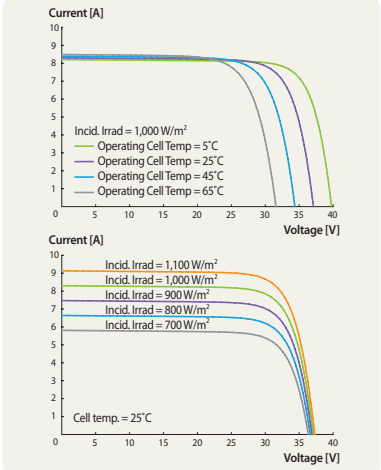
※All data at STC (Standard Test Conditions). Above data may be changed without prior notice.

| Module Diagram |

(unit : mm, inch)



| I-V Curves |



| 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 600 V (UL)
Maximum Reverse Current	15 A

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