

Solar Infinity

Hyundai Solar Module



► Multi-crystalline Type

HiS-M182SF | HiS-M185SF | HiS-M188SF
HiS-M191SF | HiS-M194SF | HiS-M197SF
HiS-M200SF | HiS-M203SF | HiS-M206SF

► Mono-crystalline Type

HiS-S188SF | HiS-S191SF | HiS-S194SF
HiS-S197SF | HiS-S200SF | HiS-S203SF
HiS-S206SF | HiS-S209SF | HiS-S212SF

Mechanical Characteristics

Dimensions	983mm(38.7")(W)×1476mm(58.11")(L)×35mm(1.38")(H)
Weight	Approx. 17.0 kg (37.5 lbs)
Solar cells	54 cells in series (6×9 matrix)
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 (UL1703), Class C Fire Rating
- Output power tolerance ±3%
- ISO 9001:2000 and ISO 14001:2004 Certified
- Advanced Mechanical Test (5,400 Pa) Passed (IEC) /Mechanical Load Test (40 lbs/ft²) Passed (UL)

Limited Warranty

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

Fast and Inexpensive Mounting

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

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.



Electrical Characteristics

► Multi-crystalline Type

		HiS-M□□□SF								
		182	185	188	191	194	197	200	203	206
Nominal output (Pmax)	W	182	185	188	191	194	197	200	203	206
Warranted minimum power	W	176.5	179.5	182.4	185.3	188.2	191.1	194.0	196.9	199.8
Voltage at Pmax (Vpm)	V	25.9	26.0	26.2	26.3	26.4	26.6	26.7	26.9	27.1
Current at Pmax (Ipm)	A	7.1	7.1	7.2	7.3	7.3	7.4	7.5	7.5	7.6
Open circuit voltage (Voc)	V	32.7	32.8	33.0	33.0	33.1	33.3	33.6	33.7	33.8
Short circuit current (Isc)	A	7.8	7.8	7.9	8.0	8.0	8.1	8.2	8.3	8.3
Output tolerance	%	±3	±3	±3	±3	±3	±3	±3	±3	±3
No. of cells & connections	pcs	54 in series								
Cell type	-	6" Multi-crystalline silicon								
Cell efficiency	%	13.9	14.1	14.3	14.5	14.8	15.0	15.2	15.4	15.6
Module efficiency	%	12.6	12.8	13.0	13.2	13.4	13.6	13.8	14.0	14.2
Temperature coefficient of Pmax	%/K	-0.43	-0.43	-0.43	-0.43	-0.43	-0.43	-0.43	-0.43	-0.43
Temperature coefficient of Voc	%/K	-0.32	-0.32	-0.32	-0.32	-0.32	-0.32	-0.32	-0.32	-0.32
Temperature coefficient of Isc	%/K	0.056	0.056	0.056	0.056	0.056	0.056	0.056	0.056	0.056

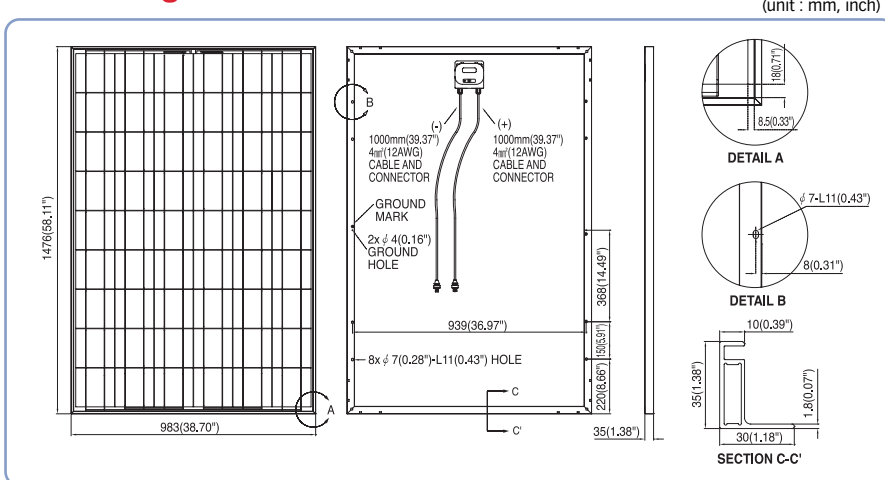
※ All data at STC(Standard Test Conditions). Above data may be changed without prior notice.

► Mono-crystalline Type

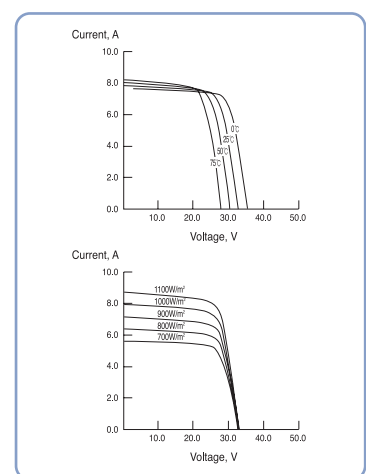
		HiS-S□□□SF								
		188	191	194	197	200	203	206	209	212
Nominal output (Pmax)	W	188	191	194	197	200	203	206	209	212
Warranted minimum power	W	182.4	185.3	188.2	191.1	194.0	196.9	199.8	202.7	205.6
Voltage at Pmax (Vpm)	V	25.0	25.2	25.6	25.9	26.3	26.5	26.8	26.9	27.0
Current at Pmax (Ipm)	A	7.5	7.6	7.6	7.6	7.6	7.7	7.7	7.8	7.9
Open circuit voltage (Voc)	V	33.0	33.2	33.2	33.3	33.4	33.4	33.5	33.5	33.5
Short circuit current (Isc)	A	8.1	8.2	8.2	8.2	8.3	8.3	8.4	8.5	8.6
Output tolerance	%	±3	±3	±3	±3	±3	±3	±3	±3	±3
No. of cells & connections	pcs	54 in series								
Cell type	-	6" Mono-crystalline silicon								
Cell efficiency	%	14.8	15.0	15.3	15.5	15.8	16.0	16.3	16.5	16.8
Module efficiency	%	13.0	13.2	13.4	13.6	13.8	14.0	14.2	14.4	14.6
Temperature coefficient of Pmax	%/K	-0.44	-0.44	-0.44	-0.44	-0.44	-0.44	-0.44	-0.44	-0.44
Temperature coefficient of Voc	%/K	-0.34	-0.34	-0.34	-0.34	-0.34	-0.34	-0.34	-0.34	-0.34
Temperature coefficient of Isc	%/K	0.052	0.052	0.052	0.052	0.052	0.052	0.052	0.052	0.052

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Module Diagram



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)



Hyundai Solar Module

[SG-Series]



▶ ▶ ▶ **Multi-crystalline Type**

- | | | |
|------------|------------|------------|
| HiS-M203SG | HiS-M206SG | HiS-M209SG |
| HiS-M212SG | HiS-M215SG | HiS-M218SG |
| HiS-M221SG | HiS-M224SG | HiS-M227SG |

Mechanical Characteristics

Dimensions	983mm(38.7") (W) × 1645mm(64.76") (L) × 35mm(1.38") (H)
Weight	Approx. 19.0 kg (41.9 lbs)
Solar cells	60 cells in series (6 × 10 matrix)
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

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- ▶ ISO 9001:2000 and ISO 14001:2004 Certified
- ▶ Advanced Mechanical Test (5,400 Pa) Passed (IEC) /Mechanical Load Test (40 lbs/ft²) Passed (UL)

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- ▶ 5 years for product defect
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Electrical Characteristics

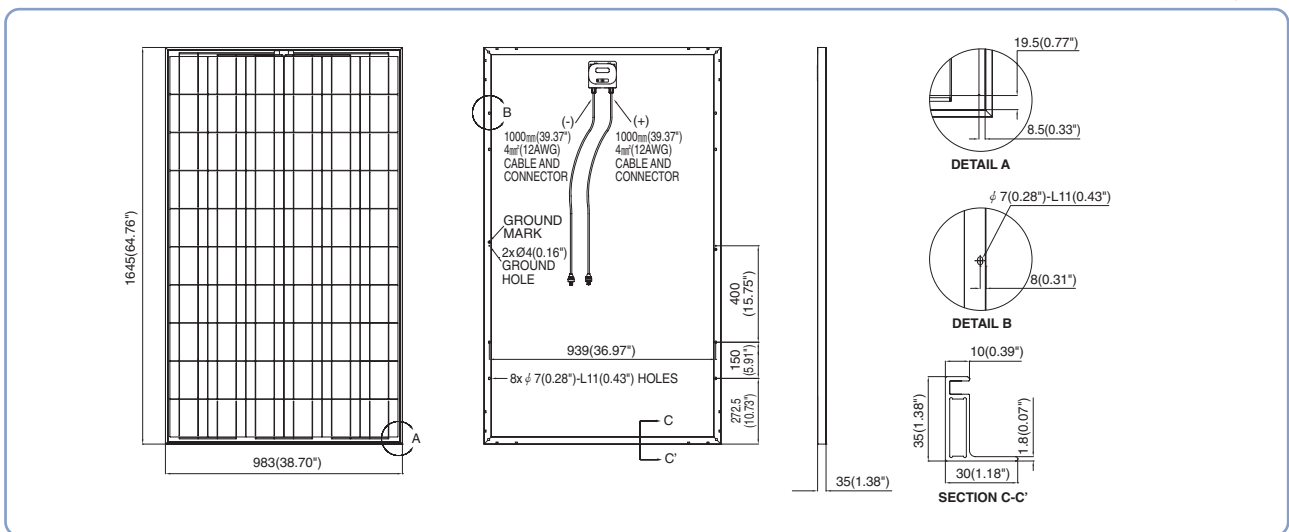
► Multi-crystalline Type

		HIS-M□□□SG								
		203	206	209	212	215	218	221	224	227
Nominal output (Pmax)	W	203	206	209	212	215	218	221	224	227
Warranted minimum power	W	196.9	199.8	202.7	205.6	208.5	211.4	214.3	217.2	220.1
Voltage at Pmax (Vpm)	V	28.6	29.0	29.4	29.6	29.8	30.0	30.2	30.2	30.3
Current at Pmax (Ipm)	A	7.1	7.1	7.1	7.2	7.2	7.3	7.3	7.4	7.5
Open circuit voltage (Voc)	V	36.3	36.3	36.4	36.4	36.5	36.7	36.9	37.1	37.2
Short circuit current (Isc)	A	7.8	7.9	8.0	8.0	8.0	8.0	8.1	8.1	8.2
Output tolerance	%	±3	±3	±3	±3	±3	±3	±3	±3	±3
No. of cells & connections	pcs	60 in series								
Cell type	-	6" Multi-crystalline silicon								
Cell efficiency	%	13.9	14.1	14.3	14.5	14.8	15.0	15.2	15.4	15.6
Module efficiency	%	12.6	12.7	12.9	13.1	13.3	13.5	13.7	13.9	14.0
Temperature coefficient of Pmax	%/K	-0.45	-0.45	-0.45	-0.45	-0.45	-0.45	-0.45	-0.45	-0.45
Temperature coefficient of Voc	%/K	-0.33	-0.33	-0.33	-0.33	-0.33	-0.33	-0.33	-0.33	-0.33
Temperature coefficient of Isc	%/K	0.049	0.049	0.049	0.049	0.049	0.049	0.049	0.049	0.049

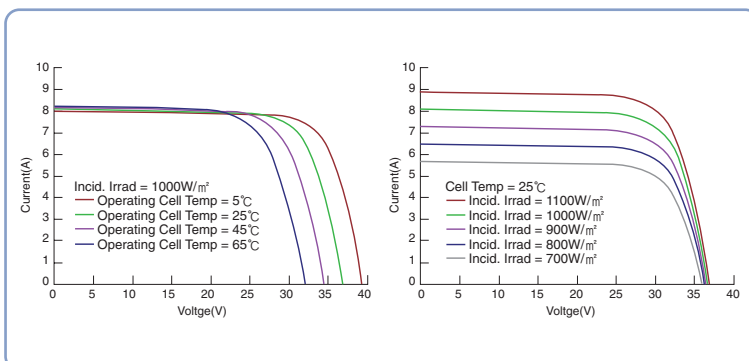
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Module Diagram

(unit : mm, inch)



I-V Curves



Nominal Operating Cell Temperature	46 °C ± 2
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Maximum System Voltage	DC 1,000 V (IEC) DC 600 V (UL)

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