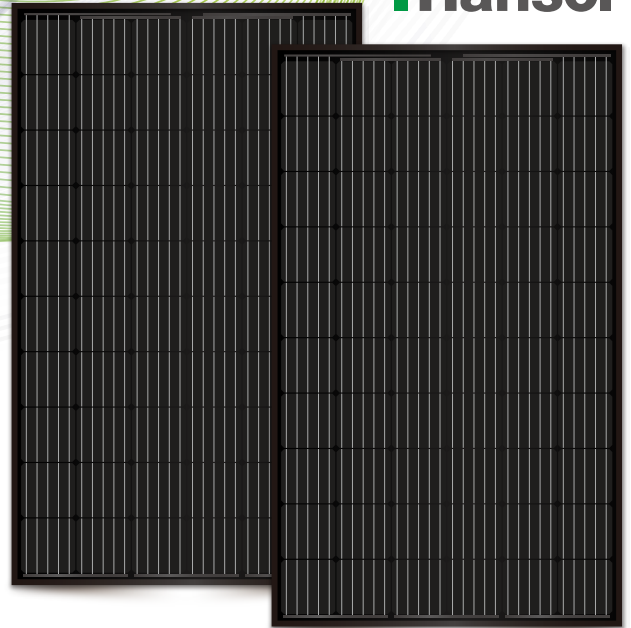


Mono Black

60cells

(280~310Watt)



Those who dream of a better future can help lead to a more meaningful and enriched world. As a leading solar module manufacturer in Korea, we never stop to achieve competitiveness through differentiation, implement the maximum value, and commit to sustainable development with customers.

Certificates



Quality

ISO 9001:2015 ISO 14001:2015
OHSAS 18001:2007 ISO/TS 16949:2009
Bankability Tier1 PV module manufacturer



Product

IEC 61215 / IEC 61730 : TUV / CE
IEC 61701 Salt Mist Corrosion Level 6
UL 1703 Fire Rating Type1

Key Features



Linear Performance Warranty

10 Years product warranty
25 Years linear performance warranty



Certified Durability

5,400 Pa snow load
2,400 Pa wind load



1,500V

Designed for UL and IEC 1,500V
Saving BoS costs



PID Free

Anti-PID Cell
Anti-PID encapsulation technology

Optional Features



Perfect Black

Black anodized frame
Black back sheet
Black string ribbon



Floating PV Installation

Module backside blocks moisture permeability

Mono- Crystalline Solar Module (UB-AN1)

60 cells (280~310 Watt)

Electrical Data / STC (UB-AN1) : Irradiance of 1000W/°C, spectrum AM 1.5 and cell temperature of 25°C

Nominal Max Power	Pmax (Wp)	280	285	290	295	300	305	310
Voltage at Pmax	Vmp (v)	30.9	31.3	31.7	32.1	32.5	32.9	33.3
Current at Pmax	Imp (A)	9.07	9.11	9.16	9.20	9.24	9.28	9.32
Open Circuit Voltage	Voc (v)	38.7	39.1	39.5	39.9	40.3	40.7	41.1
Short Circuit Current	Isc (A)	9.58	9.62	9.67	9.71	9.75	9.79	9.83
Module Efficiency	%	16.77%	17.07%	17.37%	17.66%	17.96%	18.26%	18.56%
Operating Temperature		-40°C ~ +85°C						
Max. System Voltage		1500 Vdc						
Max. Service Fuse Rating		20A						
Max. Reverse Current		20A						
Power tolerance		0 ~ +4.99W						

Electrical Data / NOCT (UB-AN1) : Irradiance of 800W/°C, spectrum AM 1.5 and Ambient Temperature of 20°C, wind speed 1m/s

Nominal Max Power	Pmax (Wp)	207.7	211.3	215.1	218.8	222.4	226.1	229.7
Voltage at Pmax	Vmp (v)	28.8	29.2	29.5	29.9	30.3	30.6	30.9
Current at Pmax	Imp (A)	7.21	7.24	7.28	7.32	7.35	7.38	7.43
Open Circuit Voltage	Voc (v)	35.9	36.2	36.6	37.0	37.3	37.7	38.0
Short Circuit Current	Isc (A)	7.74	7.78	7.82	7.85	7.88	7.91	7.95

Mechanical Data

Cell Type	Mono-crystalline
Cell Arrangement	60 (6 x 10)
Dimensions	1670 x 1000 x 35mm / (65.75x39.37x1.38in)
Weight	18.9kg (41.7 lbs)
Stand. Packaging	29pcs (vertical)
Module Pieces per Container	754pcs
Pallets per Container	26
Frame	Anodized aluminum
Front glass	3.2mm Tempered glass
J-Box	IP68, 3 diodes
Output cable	(+)1000mm(39.37in), (-)1000mm(39.37in), 12AWG
Connectors	MC4 compatible
Module Fire Performance	Type 1

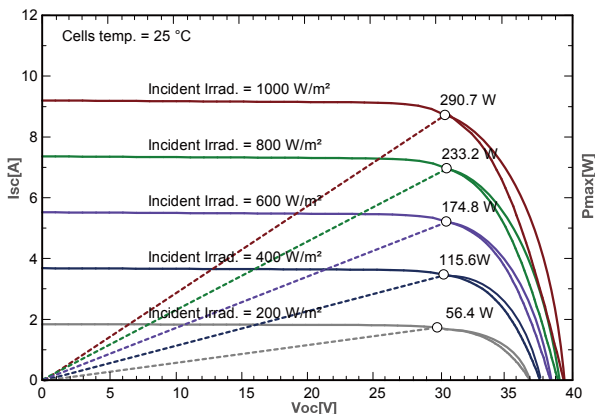
Warranties

Product	10 years
Performance	10 years performance warranty (>90%)
	25 years linear power warranty (>80%)

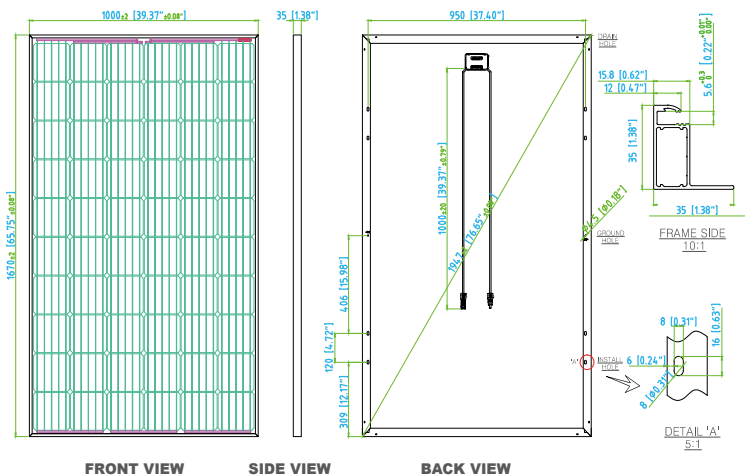
Temperature Characteristics

Specifications	Data
Temperature coefficient (Pmax)	-0.37
Temperature coefficient (Voc)	-0.28
Temperature coefficient (Isc)	0.05
Normal Operating Cell Temperature	46.0 ± 2°C

I-V Curve according to Irradiance



MODULE DIAGRAM unit : mm (inch)



Hansol
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