HYUNDAI SOLAR MODULE

UF SERIES

M3+ Shingled Techonology

HiE-S390UF HiE-S400UF

Shingled Technology

For Utility-Scale Applications

More Power Generation In Low Light

M3+ PERC Shingled

M3+ PERC Shingled Technology provides ultra-high efficiency with better performance in low irradiation. Maximizes installation capacity in limited space.

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.
(Australia and Europe Only)

UL / VDE Test Labs

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

Hyundai's Warranty Provisions

- 25-Year Product Warranty
  - On materials and workmanship
  Australia and Europe Only
- 25-Year Performance Warranty
  - Initial year: 98.0%
  - Linear warranty after second year: with 0.55%p annual degradation, 84.8% is guaranteed up to 25 years

About Hyundai Energy Solutions Co., Ltd

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

HYUNDAI ENERGY SOLUTIONS

Electrical Characteristics

		Mono-Crystalline Module (HiE-S____UF)	
		390	400
Maximum Rating Power(Pm)	W	390	400
Open Circuit Voltage(Voc)	V	49.3	49.5
Short Circuit Current(Isc)	A	10.03	10.12
Maximum Power Voltage(Vmp)	V	40.8	41
Maximum Power Current(Imp)	A	9.56	9.76
Module Efficiency	%	20.8	21.3
Maximum System Voltage	V	DC 1,500	
Temperature Coefficient of Pmax	%/°C	-0.340	
Temperature Coefficient of Voc	%/°C	-0.270	
Temperature Coefficient of Isc	%/°C	+0.040	

*All data at STC(Standard Test Conditions). Above data may be changed without prior notice.
*Tolerance of Pmax:0~+5W.
*Measuring uncertainty of power:±3%.
* Performance deviation of Voc [V], Isc [A], Vm[V] and Im[A]:±3%.

Mechanical Characteristics

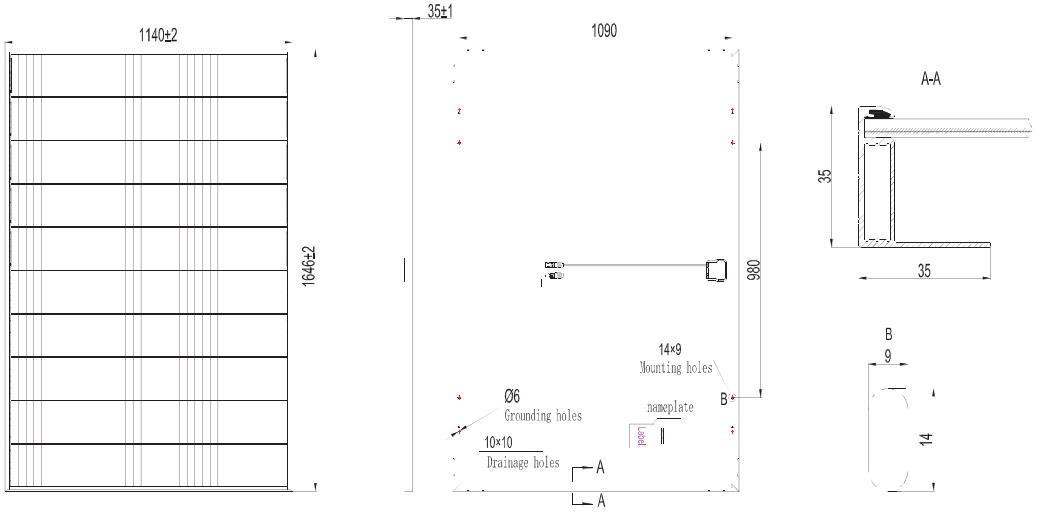
Dimensions	1646×1140×35 mm (L×W×H)	Weight	20.5kg
Back Sheet	High weatherability backsheet	Encapsulation	EVA
Cells	158.75x158.75 PERC solar cells		
Cable	Length 1500mm, 1×4mm²		
Junction Box	Rated current:15A, IP67, TUV&UL		
Frame	Anodized aluminum profile		
Front Glass	White toughened safety glass, 3.2mm		
Connector	Zhejiang Renhe Photovoltaic Technology Co., Ltd./05-8		
	Staubli Electrical Connectors AG/ PV-KST4-EVO 2/xy_UR(male); PV-KBT4-EVO 2xy_UR(female)		

Installation Safety Guide

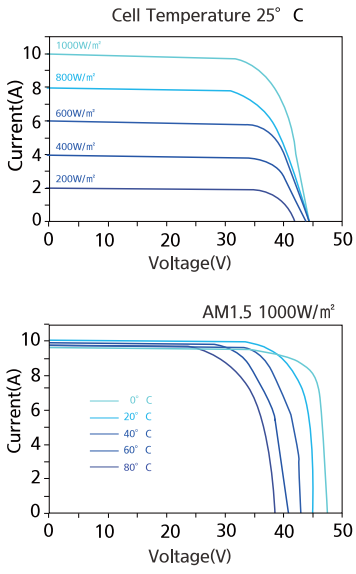
- Only qualified personnel should install or perform maintenance.
- Be aware of dangerous high DC voltage.
- Do not damage or scratch the rear surface of the module.
- Do not handle or install modules when they are wet.

Nominal Module Operating Temperature (NMOT)	42.3°C (±2°C)
Temperature Range	-40° C to +85° C
Maximum System Voltage	1500V DC(IEC)
Fire Rating	Class C
Series Fuse Rating	20A
Maximum Surface Load Capacity	5400Pa

Module Diagram (unit : mm)



I-V Curves



Manufactured in China

HYUNDAI ENERGY SOLUTIONS

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