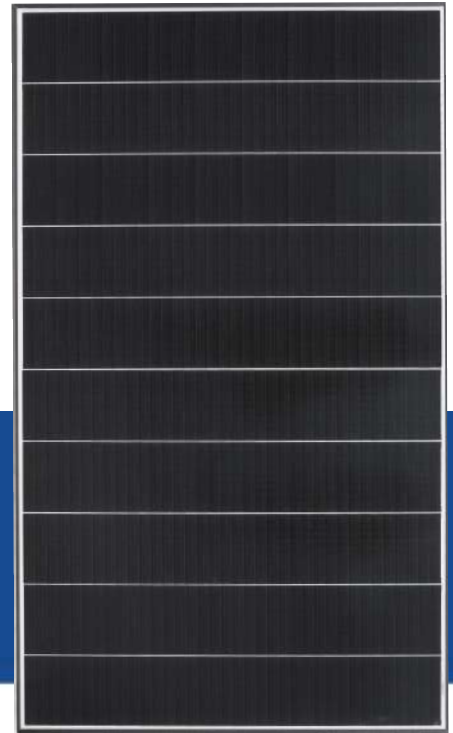


# HYUNDAI SOLAR MODULE

**UF**  
SERIES

**M3+  
Shingled  
Technology**

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



## 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

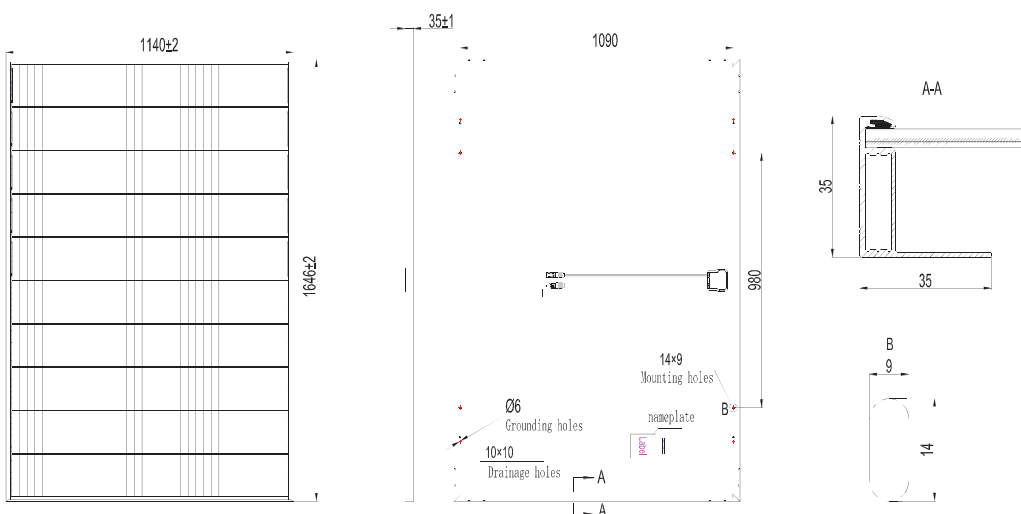
Dimensions	1646×1140×35 mm (L×W×H)	Weight	20.5kg
Back Sheet	High weatherability backsheet	Encapsulation	EVA
Cells	158.75x158.75 PERC solar cells		
Cable	Length 1500mm, 1×4mm <sup>2</sup>		
Junction Box	Rated current:15A, IP67, TUV&UL		
Frame	Anodized aluminum profile		
Front Glass	White toughened safety 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

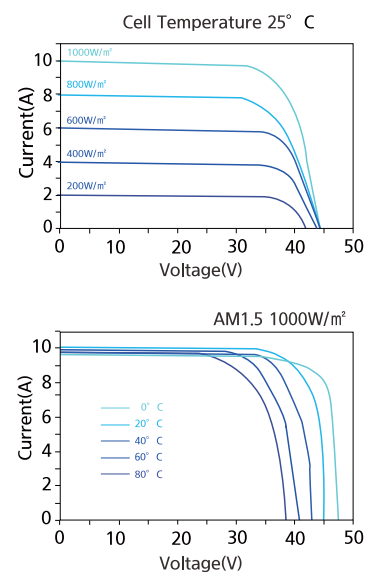
- Only qualified personnel should install or perform maintenance.
- Be aware of dangerous high DC voltage.
- Do not damage or scratch the rear surface of the module.
- Do not handle or install modules when they are wet.

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



Sales & Marketing  
sales@hyundai-es.co.kr

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