# **HYUNDAI SOLAR MODULE**



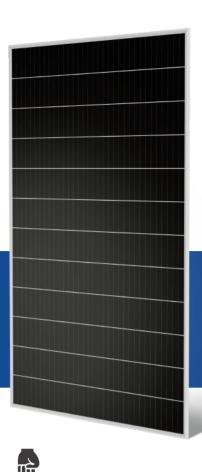
### **PERC Shingled**

HIE-S480VI HIE-S485VI HIE-S490VI HIE-S495VI HIE-S500VI HIE-S505VI











# M6 PERC Shingled

M6 PERC Shingled Technology provides ultra-high efficiency with better performance in low irradiation. Maximizes installation capacity in limited space.



#### **Reliable Warranty**

Global Brand with powerful financial strength provide reliable 25-year warranty. (Australia and Europe Only)



wind.

# **UL / VDE Test Labs**

**Mechanical Strength** 

Tempered glass and reinforced frame

conditions such as heavy snow and strong

design withstand rigorous weather

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

## **Hyundai's Warranty Provisions**



 25-Year Product Warranty
 On material 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













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<b>Electrical Characteristics</b>		Mono-Crystalline Module (HiE-SVI)					
		480	485	490	495	500	505
Nominal Output (Pmpp)	W	480	485	490	495	500	505
Open Circuit Voltage(Voc)	V	46.6	46.6	46.7	46.8	46.8	46.9
Short Circuit Voltage (Isc)	А	13.16	13.22	13.28	13.34	13.4	13.46
Voltage at Pmax (Vmpp)	V	38.8	38.8	38.9	39	39	39.1
Cuurent at Pmax (Impp)	А	12.37	12.50	12.60	12.69	12.82	12.92
Module Efficiency	%	20.5	20.7	20.9	21.1	21.3	21.5
Cell Type	-	PERC Mono-Crystalline Silicon Shingled					
Maximum System Voltage	V	1,500					
Temperature Coefficiency of Pmax	%/°C	-0.34					
Temperature Coefficiency of Voc	%/°C	-0.27					
Temperature Coefficiency of Isc	%/°C	0.04					

<sup>\*</sup>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%.

#### **Mechanical Characteristics**

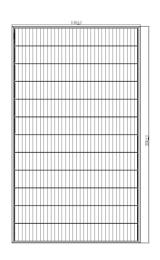
Dimensions	2,056 × 1,140 × 35mm (L × W × H)					
Weight	25kg					
Solar Cells	408 cells, PERC Mono-crystaline Shingled (166 $ imes$ 166mm)					
Output Cables	Length 1,200mm, 1×4mm² Connector Stäubli : MC4-Evo2					
Junction Box	Rated current: 20A, IP67, TUV&UL, 2 bypass diodes					
Construction	Front Glass: White toughened safety glass, 3.2mm Encapsulation: EVA (Ethylene-Vingl-Acetate)					
Frame	Anodized Aluminum					

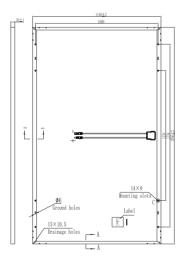
#### **Installation Safety Guide**

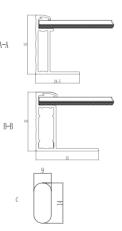
- Only qualified personnel should install or perform maintenance.
- Be aware of dangerous high DC voltage.
- $\bullet$  Do not damage or scratch the rear surface of the module.
- Do not handle or install modules when they are wet.

Nominal Operating Cell Temperature	42.3°C ( ±2°C )		
Operating Temperature	-40 ~ 85° C		
Maximum System Voltage	DC 1,500		
Fire Rating	Class C		
Series Fuse Rating	20A		
Maximum Surface Load Capacity	Front 5,400 Pa Rear 2,400 Pa		

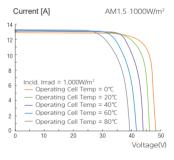
## Module Diagram (Unit: mm)

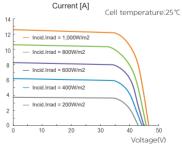






#### **I-V Curves**







Manufactured in China



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<sup>\*</sup> Performance deviation of Voc [V], Isc [A], Vm[V] and  $Im[A]:\pm 3\%$ .