

# FUSION ENERGY HIGH DENSITY SOLAR MODULE

Designed for powering the future today  
**FUSION ENERGY** high density solar module dramatically amplifies energy conversion providing the highest system efficiency and space management

Featuring a uniform cell construction the Fusion module increases the solar radiation conversion by maximising available cell space.

The Fusion module utilises rear contact connection eliminating front conventional soldered copper ribbons giving the module superior performance, reliability and a beautiful sleek appearance.



## Highest Performance

- Rear contact design for superior energy density
- More power at higher temperatures
- Increased light absorption with dark mass cell
- Parallel Circuitry maximises energy production
- Superior low light performance

## Engineered Durability

- Flexible cell connection technology
- Aerospace adhesive reinforce cell connections
- Redundant cell connections mitigate cell cracks

## Maximum Safety

- Low voltage parallel design
- Zero Potential Induced Degradation
- AC Module optimisation

Electrical Characteristics STC	
Maximum Power - Pmp	465W
Open Circuit Voltage - Voc	49.4V
Short Circuit Voltage - Isc	12.0A
Maximum Power Voltage - Vmp	40.9V
Maximum Power Current - Imp	11.0A
Module Efficiency	22%
Power Tolerance	+5W
STC: Irradiance 1000W/m2 module temperature 25°C AM = 1.5	
NOCT: Irradiance 800W/m2 ambient temperature 20°C wind speed = 1m/s	
Temperature Characteristics	
Temperature Coefficient - Pmax	-0.28 % / °C
Temperature Coefficient - Voc	-0.26 % / °C
Temperature Coefficient - Isc	+0.05 % / °C
Normal Operating Cell Temperature - NOCT	45+-°C
Mechanical Specifications	
External Dimensions	1969 x 1140 x 35mm
Weight	23kg
Solar Cells	HYUNDAI HIT FUSION
Front Glass	3.2mm AR Coating Tempered Glass
Frame	Black anodised aluminium alloy
Junction Box	IP68
Output Cables	4.0mm2 cable length 1000m
Connector	Multi-Connect Made in Germany
Operating Conditions	
Maximum System Voltage	1500VDC
Maximum Series Fuse Rating	20A
Wind / Snow Load	6000Pa Wind 2400Pa Snow
Operating Temperature	-40°C - +85°C
Certifications	
TUV Certification	IEC 61215
TUV Certification	IEC 61730 Edition 1 and 2
Country of Manufacture	Korea
Warranty	
Product	25 Years backed by Hyundai Energy Solutions
Performance	25 Years @ 90% Flash Test

AC MODULE DESIGN



PRODUCT WARRANTY COMPARISON

