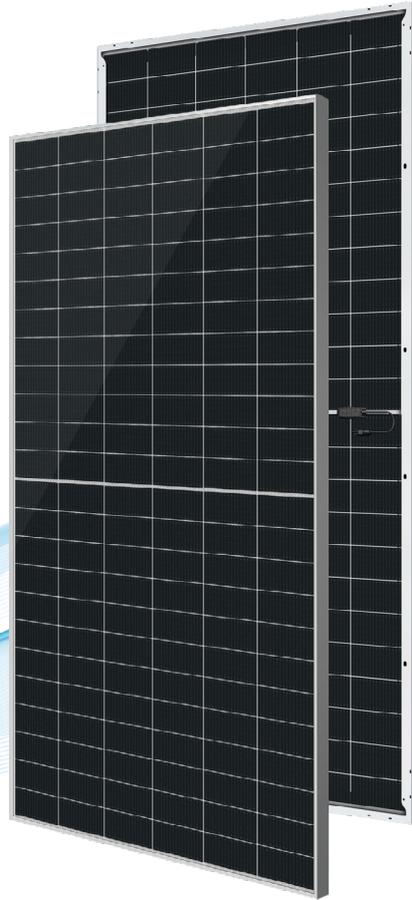


HD HYUNDAI SOLAR MODULE

NI Series

Premium N-Type TOPCon Module

HiC-T580NI | HiC-T585NI | HiC-T590NI | HiC-T595NI



23.0%
High Efficiency



High-End
TOPCon
Technology



Higher
Bifaciality



Long-Term
Reliability



For Commercial
& Utility
Applications

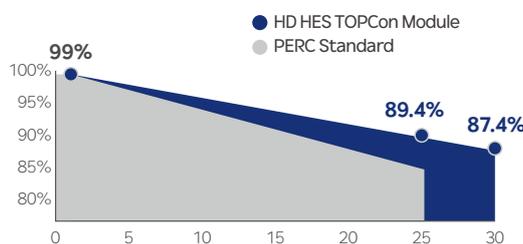
HD Hyundai's Warranty Provisions

15
YEARS

- 15-Year Product Warranty
- Materials and workmanship

30
YEARS

- 30-Year Performance Warranty
- First year degradation: 1%
- Linear warranty after initial year: with 0.4%p annual degradation, 87.4% is guaranteed up to 30years



*Refer to HD HES standard warranty for details.

Certification



- ISO 9001:2015:ISO Quality Management System
- ISO 14001:2015:ISO Environment Management System
- ISO 45001:Occupational Health and Safety
- IEC 61215, IEC 61730



Electrical Characteristics (STC*)

HiC-TxxxNI					
Item	Unit	580	585	590	595
Nominal Output (Pmax)	W	580	585	590	595
Open Circuit Voltage (Voc)	V	52.21	52.42	52.62	52.81
Short Circuit Current (Isc)	A	14.01	14.07	14.13	14.20
Voltage at Pmax (Vmpp)	V	43.70	43.88	44.05	44.21
Current at Pmax (Impp)	A	13.27	13.33	13.40	13.46
Module Efficiency	%	22.5	22.6	22.8	23.0
Power Selection	%				0 ~ +3
Temperature Coefficient of Pmax	%/°C				-0.29
Temperature Coefficient of Voc	%/°C				-0.25
Temperature Coefficient of Isc	%/°C				0.043

*STC : Irradiance 1,000 W/m², cell temperature 25°C, AM=1.5 / Test uncertainty for Pmax ±3%; Voc ±3%; Isc ±4%

BNPI** (Bifacial Nameplate Irradiance)

Item	Unit	580	585	590	595
Nominal Output (Pmax)	W	641	647	652	658
Open Circuit Voltage (Voc)	V	52.23	52.44	52.63	52.83
Short Circuit Current (Isc)	A	15.55	15.62	15.69	15.76
Voltage at Pmax (Vmpp)	V	43.71	43.89	44.06	44.23
Current at Pmax (Impp)	A	14.67	14.74	14.81	14.88

**Las propiedades eléctricas del BNPI se miden bajo la irradiancia correspondiente a 1000 W/m² en la parte frontal del módulo y 135 W/m² en la parte trasera del módulo.

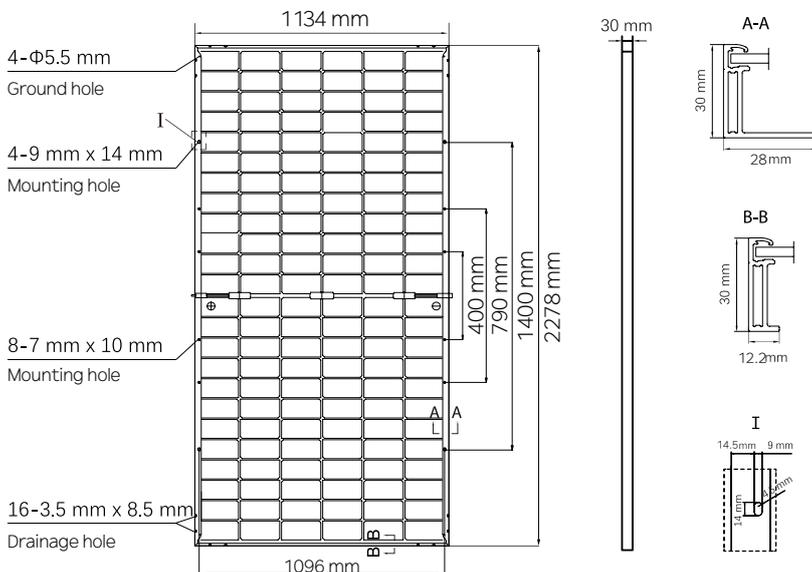
Mechanical Characteristics

Dimensions	2,278 (L) x 1,134 (W) x 30mm (H)
Weight	31.1 kg
Solar Cells	N-Type TOPCon, 144 (6x24) monocrystalline half-cut bifacial cells
Output Cables	Cable : 4mm ² / 12AWG / (+)350 mm, (-)250 mm / Customized length Connector : HCB40 (Standard) / MC4-EVO2A (Optional)
Junction Box	3-part, 3 bypass diodes, IP68 rated
Construction	Front : 2.0mm semi-tempered solar glass with anti-reflective coating Rear : 2.0mm semi-tempered solar glass
Frame	Anodized aluminum alloy

Shipping Configurations

Container Size (HC)	40'	Modules Per Pallet (pcs)	36
Pallets Per Container	20	Modules Per Container (pcs)	720

Module Diagram (unit : mm)



Installation Safety Guide

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

Nominal Module Operation Temperature	41°C ± 2°C
Operating Temperature	-40°C ~ +85°C
Maximum System Voltage	DC 1,500 V
Maximum Reverse Current	30A
Maximum Test Load	Front 5,400Pa Rear 2,400Pa

I-V Curves (HiC-T585NI)

