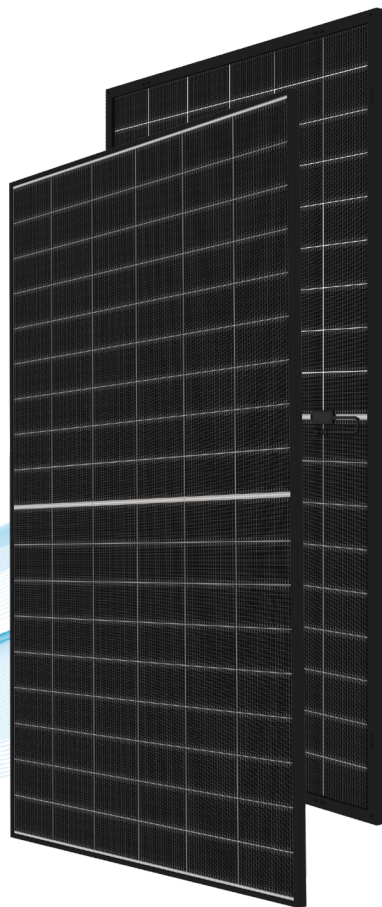


# HD HYUNDAI SOLAR MODULE

## HeteroMax™ (CF-BF(ZB) Series)

### Premium N-Type HJT module

HiT-H500CF-BF(ZB) | HiT-H505CF-BF(ZB) | HiT-H510CF-BF(ZB) | HiT-H515CF-BF(ZB) | HiT-H520CF-BF(ZB)



23.3%  
High Efficiency



High-End  
Heterojunction  
Technology



Enhanced Power  
Generation with low  
Temp. Coefficient



More Power  
Generation  
In Low Light



For Residential

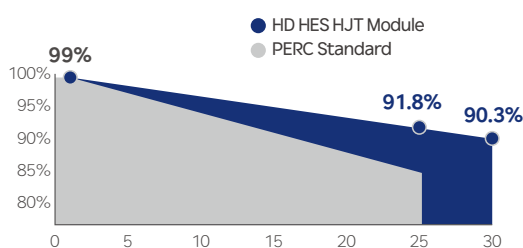
#### HD Hyundai's Warranty Provisions

30  
YEARS

- 30-Year Product Warranty
- Materials and workmanship

30  
YEARS

- 30-Year Performance Warranty
- First year degradation: 1%
- Linear warranty after initial year: with 0.3%p annual degradation, 90.3% is guaranteed up to 30years



\*Refer to HD HES standard warranty for details.

#### Certification



- ISO 9001:2015: Quality Management System
- ISO 14001:2015: Environmental Management System
- ISO 45001:2018: Occupational Health and Safety Management System
- IEC 61215, IEC 61730

## Electrical Characteristics (STC\*)

| HiT-HxxxxCF-BF(ZB)              |      |       |       |       |       |       |
|---------------------------------|------|-------|-------|-------|-------|-------|
| Item                            | Unit | 500   | 505   | 510   | 515   | 520   |
| Nominal Output (Pmax)           | W    | 500   | 505   | 510   | 515   | 520   |
| Open Circuit Voltage (Voc)      | V    | 40.63 | 40.71 | 40.79 | 40.88 | 40.96 |
| Short Circuit Current (Isc)     | A    | 15.09 | 15.18 | 15.26 | 15.33 | 15.42 |
| Voltage at Pmax (Vmpp)          | V    | 35.14 | 35.22 | 35.30 | 35.48 | 35.56 |
| Current at Pmax (Impp)          | A    | 14.31 | 14.40 | 14.49 | 14.58 | 14.67 |
| Module Efficiency               | %    | 22.4  | 22.7  | 22.9  | 23.1  | 23.3  |
| Power Selection                 | W    | 0~+5  |       |       |       |       |
| Temperature Coefficient of Pmax | %/°C | -0.24 |       |       |       |       |
| Temperature Coefficient of Voc  | %/°C | -0.22 |       |       |       |       |
| Temperature Coefficient of Isc  | %/°C | 0.04  |       |       |       |       |
| Bifaciality                     | %    | 90±5  |       |       |       |       |

\*STC : Irradiance 1,000 W/m<sup>2</sup>, cell temperature 25°C, AM=1.5 / Test uncertainty for Pmax ±3%; Voc ±3%; Isc ±4%

## BNPI\*\* (Bifacial Nameplate Irradiance)

| Item                        | Unit | 500   | 505   | 510   | 515   | 520   |
|-----------------------------|------|-------|-------|-------|-------|-------|
| Nominal Output (Pmax)       | W    | 560   | 565   | 570   | 575   | 580   |
| Open Circuit Voltage (Voc)  | V    | 40.63 | 40.71 | 40.79 | 40.88 | 40.94 |
| Short Circuit Current (Isc) | A    | 16.92 | 17.02 | 17.11 | 17.19 | 17.29 |
| Voltage at Pmax (Vmpp)      | V    | 35.14 | 35.22 | 35.30 | 35.48 | 35.54 |
| Current at Pmax (Impp)      | A    | 16.05 | 16.15 | 16.25 | 16.33 | 16.43 |

\*\*The electrical properties of BNPI are measured under the irradiance corresponding to 1000 W/m<sup>2</sup> on the module front and 135 W/m<sup>2</sup> on the module rear.

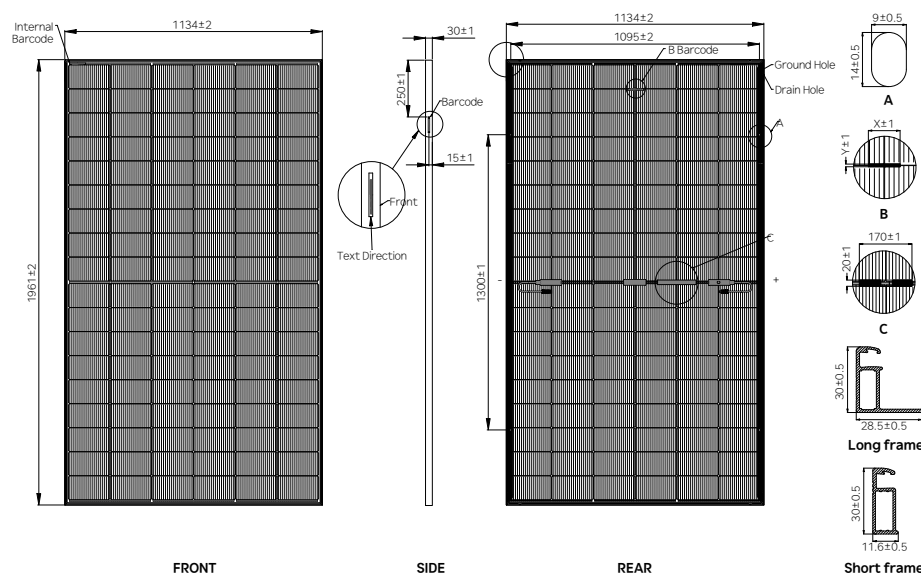
## Mechanical Characteristics

|               |                                                                                                                    |
|---------------|--------------------------------------------------------------------------------------------------------------------|
| Dimensions    | 1,961 mm (L) x 1,134 mm (W) x 30 mm (H)                                                                            |
| Weight        | 27.6 kg                                                                                                            |
| Solar Cells   | N-Type HJT, 108 (6x18) monocrystalline half-cut bifacial cells                                                     |
| Output Cables | Cable : 4mm <sup>2</sup> , (+):1,250mm, (-):1,250mm or Customized<br>Connector : Original Stäubli MC4 or MC4-EVO2A |
| Junction Box  | 3-part, 3 bypass diodes, IP68 rated                                                                                |
| Construction  | Front : 2.0mm Double-coated Rolled Toughened Glass<br>Rear : 2.0mm 3-hole_Glazing                                  |
| Frame         | Black Anodized aluminum alloy                                                                                      |

## Shipping Configurations

|                             |    |                             |     |
|-----------------------------|----|-----------------------------|-----|
| Container Size (HC)         | 40 | Modules Per Pallet (pcs)    | 36  |
| Pallets Per Container (pcs) | 24 | Modules Per Container (pcs) | 864 |

## Module Diagram (unit : mm)



## 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 Operation Temperature | 44°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<br>Rear 2,400Pa |

## I-V Curves (HiT-H510CF-BF(ZB))

