

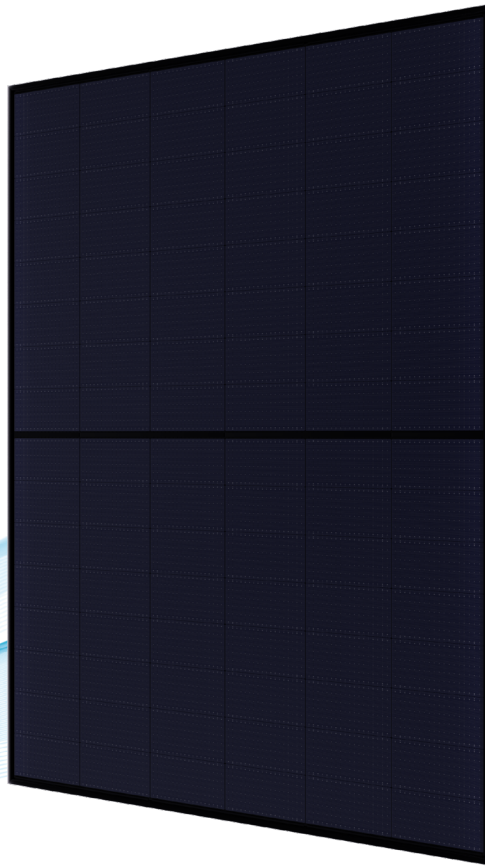
PRELIMINARY

HD HYUNDAI SOLAR MODULE

HeteroMax™ (LE-FB Series)

Premium N-Type HJT module

HiT-H435LE-FB | HiT-H440LE-FB | HiT-H445LE-FB | HiT-H450LE-FB | HiT-H455LE-FB



22.8%
High Efficiency



High-End
Heterojunction
Technology



Enhanced Power
Generation with low
Temp. Coefficient



More Power
Generation
In Low Light



For Residential
(Full Black Design)

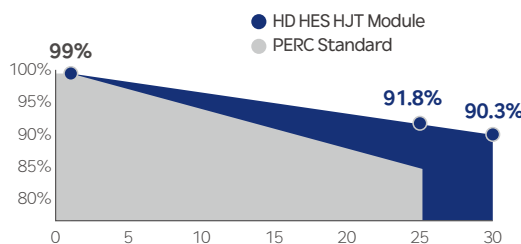
HD Hyundai's Warranty Provisions

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:ISO Quality Management System
- ISO 14001:2015:ISO Environment Management System
- ISO 45001:Occupational Health and Safety



Electrical Characteristics (STC*)

| HiT-HxxxLE-FB | | | | | | |
|---------------------------------|------|--------|-------|-------|-------|-------|
| Item | Unit | 435 | 440 | 445 | 450 | 455 |
| Nominal Output (Pmax) | W | 435 | 440 | 445 | 450 | 455 |
| Open Circuit Voltage (Voc) | V | 36.42 | 36.52 | 36.62 | 36.72 | 36.82 |
| Short Circuit Current (Isc) | A | 15.20 | 15.31 | 15.42 | 15.53 | 15.64 |
| Voltage at Pmax (Vmpp) | V | 30.50 | 30.61 | 30.72 | 30.83 | 30.94 |
| Current at Pmax (Impp) | A | 14.27 | 14.38 | 14.49 | 14.60 | 14.71 |
| Module Efficiency | % | 21.8 | 22.0 | 22.3 | 22.5 | 22.8 |
| Power Selection | W | 0 ~ +5 | | | | |
| Temperature Coefficient of Pmax | %/K | -0.24 | | | | |
| Temperature Coefficient of Voc | %/K | -0.22 | | | | |
| Temperature Coefficient of Isc | %/K | 0.04 | | | | |

*STC : Irradiance 1,000 W/m², cell temperature 25°C, AM=1.5 / Tolerance of Pmax +3%; Voc ±3%; Isc ±5%

NMOT

| Item | Unit | 435 | 440 | 445 | 450 | 455 |
|-----------------------------|------|-------|-------|-------|-------|-------|
| Nominal Output (Pmax) | W | 332 | 335 | 339 | 343 | 347 |
| Open Circuit Voltage (Voc) | V | 34.76 | 34.86 | 34.95 | 35.05 | 35.14 |
| Short Circuit Current (Isc) | A | 12.15 | 12.24 | 12.32 | 12.41 | 12.50 |
| Voltage at Pmax (Vmpp) | V | 29.12 | 29.23 | 29.34 | 29.45 | 29.55 |
| Current at Pmax (Impp) | A | 11.40 | 11.49 | 11.58 | 11.67 | 11.76 |

NMOT: Irradiance 800W/m², Ambient Temperature 20°C, Wind Speed 1m/s.

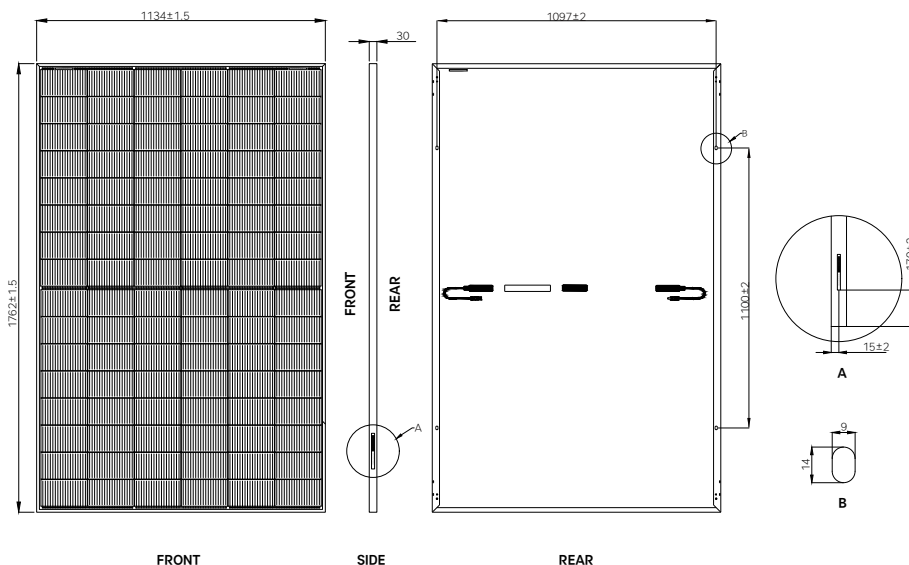
Mechanical Characteristics

| | |
|---------------|---|
| Dimensions | 1,762 mm (L) x 1,134 mm (W) x 30 mm (H) |
| Weight | 21.8 kg |
| Solar Cells | N-Type HJT, 96 (6x16) monocrystalline half-cut bifacial cells |
| Output Cables | Cable : 4mm ² / 12AWG / (+)1,250 mm, (-)1,250 mm / Customized length Connector : MC4 / MC4-Evo2A / PV-H4 / Z4S-abcd / ST4 |
| Junction Box | 3-part, 3 bypass diodes, IP68 rated |
| Construction | Front : 1.6mm semi-tempered solar glass with high cut-off and anti-reflective coating Rear : 1.6mm semi-tempered solar glass |
| Frame | Black Anodized aluminum alloy |

Shipping Configurations

| | | | |
|-----------------------|-----|-----------------------------|-----|
| Container Size (HC) | 40' | Modules Per Pallet (pcs) | 36 |
| Pallets Per Container | 26 | Modules Per Container (pcs) | 936 |

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 Rear 2,400Pa |

I-V Curves (HiT-H445LE-FB)

