



N-Type

96cells (Bifacial)

435W - 455W



As a leading provider of integrated energy solutions in Korea,

We deliver a wide spectrum of technologies across solar generation, storage, and power management.

We are committed to innovation-driven competitiveness, long-term value creation, and sustainable growth with our customers.

Certificates



ISO

- ISO 9001:2015
- ISO 45001:2018



Test Standard

- IEC 61215
- IEC 61730
- UL 61730



Quality

- Over 50years of manufacturing experience (from 1966)
- Having own official laboratory approved by TUV SUD

Key Features



Linear Performance Warranty

- 12 years product warranty
- 30 years performance warranty (87.40%)



1500V

- Designed for UL and IEC 1,500V
- Saving BoS costs



Mechanical Load

- Front 5,400 Pa (Snow load)
- Back 2,400 Pa (Wind load)

AM-NRJA0 Series

| 435W - 455W TOPCon | Half-Cut 96Cells |

| HAxxxAM-NRJA0 | | HA435AM-NRJA0 | HA440AM-NRJA0 | HA445AM-NRJA0 | HA450AM-NRJA0 | HA455AM-NRJA0 |
|---------------------------------|----------|---------------|---------------|----------------|---------------|---------------|
| Max Power | Pmax(Wp) | 435 | 440 | 445 | 450 | 455 |
| Open Circuit Voltage | Voc(V) | 34.54 | 34.68 | 34.82 | 34.96 | 34.50 |
| Short Circuit Current | Isc(A) | 16.05 | 16.11 | 16.17 | 16.23 | 16.29 |
| Voltage at Pmax | Vmp(V) | 28.25 | 28.48 | 28.71 | 28.94 | 29.16 |
| Current at Pmax | Imp(A) | 15.40 | 15.45 | 15.50 | 15.55 | 15.60 |
| Module efficiency | % | 21.80 | 22.00 | 22.20 | 22.50 | 22.80 |
| Temperature Coefficient of Isc | | | | + 0.045 [%/°C] | | |
| Temperature Coefficient of Voc | | | | - 0.25 [%/°C] | | |
| Temperature Coefficient of Pmax | | | | - 0.29 [%/°C] | | |
| NOCT | °C | 42±2°C | | | | |

| Electrical Characteristics With Rear Side Power Gain | | | | | | |
|--|-----------|-------|-------|-------|-------|-------|
| Front power | Pmax (Wp) | 435 | 440 | 445 | 450 | 455 |
| Total power | Pmax (Wp) | 480 | 485 | 490 | 495 | 500 |
| Open Circuit Voltage | Voc(V) | 34.53 | 34.66 | 34.80 | 34.95 | 34.09 |
| Short Circuit Current | Isc(A) | 17.74 | 17.81 | 17.87 | 17.94 | 18.01 |
| Voltage at Pmax | Vmp(V) | 28.20 | 28.40 | 28.60 | 28.80 | 29.00 |
| Current at Pmax | Imp(A) | 17.02 | 17.07 | 17.13 | 17.18 | 17.24 |

All data accordance with STC of real side power generation will not guarantee as they may depending on installation location, side, angle and other things.
NOCT : Irradiance on cell surface 800 W/m2, Air Temperature 20°C, Wind Velocity 1m/s, Mounting open back side.

| Mechanical Data | |
|-----------------|--|
| Dimension | 1762 x 1134 x 30 mm |
| Weight | 24.0kg ±5% |
| Junction Box | IP68, 3diodes |
| Frame | Anodized aluminium alloy |
| Glass | 2.0mm, AR coated semi-toughened glass 2.0mm, semi-toughened glass |
| Cable | 4mm ² , + : 300mm/- : 200(Customizable) |

| System Design | |
|------------------------|---------------|
| Max.System Voltage | 1500 DC (IEC) |
| Max.Series Fuse rating | 30A |
| Max.Reverse Current | 30A |

| Operational & Testing Condition | |
|---------------------------------|------------------------------|
| Operational Temperature | -40°C ~ 85°C |
| Max.Test Load (Push) | Front 5400 Pa / Back 2400 Pa |

| Packaging | |
|----------------------------------|--|
| 36 pcs / pallet, 936 pcs / 40'HQ | |

