



# 66M HJT All Black Module

66 Cell M2+ Heterojunction 360W - 370W

## 20.5%

Super high efficiency advanced HJT cells with Smartwire technology using 18 round microwires in place of traditional flat busbars. The round shape of the microwire creates light trapping effect which reduces shading by 25%

## Stability & Looks

HJT cells, based on N-type silicon result in extremely low LID & PID, reducing annual degradation and guaranteeing more power.

## Anti-Reflective

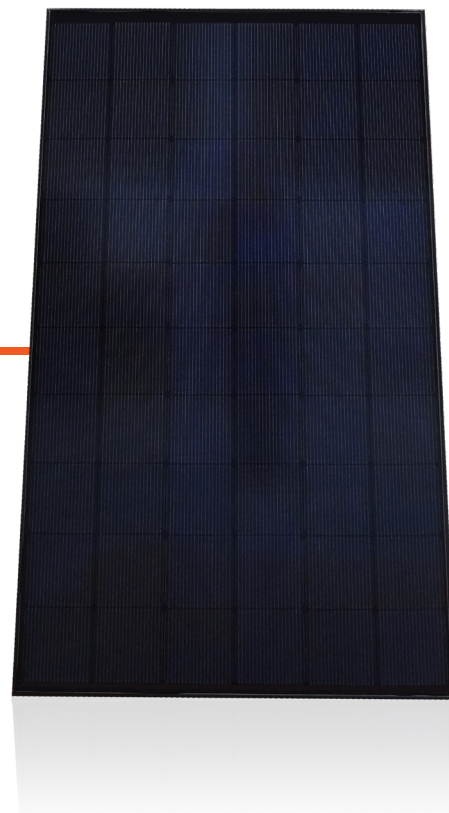
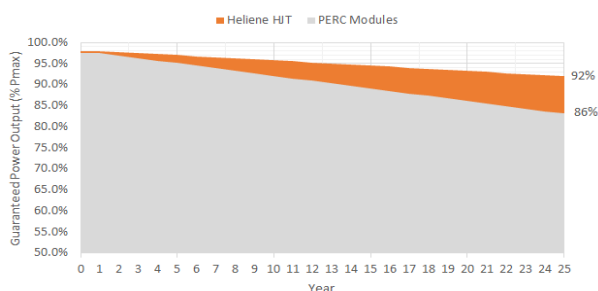
Premium solar glass with anti reflective coating delivers more energy throughout the day while the HJT cells excel in low light and high temperature conditions.

## High Reliability

HJT cell combines the advantages of N-type crystalline silicon with the excellent absorption and passivation of amorphous silicon.

## No Compromise Guarantee

15 Year Workmanship Warranty  
25 Year Linear Performance Guarantee



## Manufactured Using International Quality System Standards: ISO9001

### World-class Quality

- Heliene's fully automated manufacturing facilities with state-of-the-art robotics and computer aided inspection systems ensure the highest level of product quality and consistency
- All manufacturing locations are compliant with international quality standards and are ISO 9001 certified
- Heliene modules have received Top Performer rankings in several categories from PV Evolution Labs (PV EL) independent quality evaluations

### Bankable Reputation

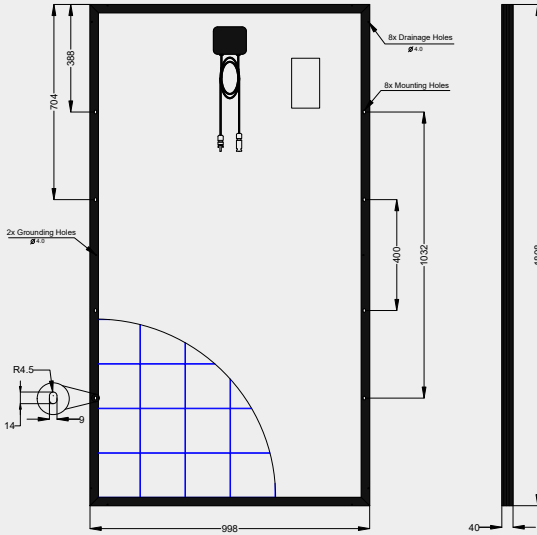
- Established in 2010, Heliene is recognized by Bloomberg New Energy Finance (BNEF) as Tier 1 manufacturer of solar modules and has been approved for use by the U.S. Department of Defense, U.S. Army Corps of Engineers and from numerous top tier utility scale project debt providers
- By investing heavily in research and development, Heliene has been able to stay on the cutting edge of advances in module technology and manufacturing efficiency

### Local Sales, Service, and Support

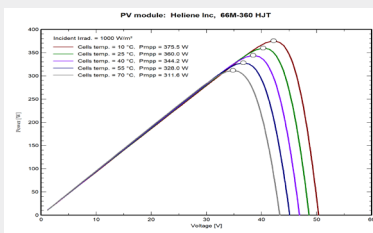
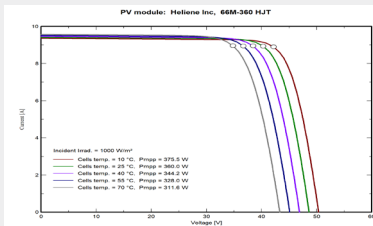
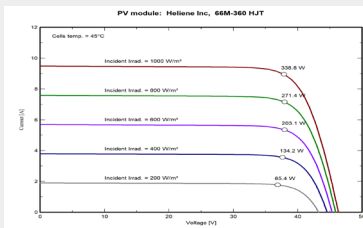
- With sales offices across the U.S. and Canada, Heliene prides itself on unsurpassed customer support for our clients. Heliene has become the brand of choice for many of the leading residential installers, developers and Independent Power Producers due to our innovative technology, product customization capability and just in time last-mile logistics support
- Local sales and customer support means answered phone calls and immediate answers to your technical and logistics questions. We understand your project schedules often change with little warning and endeavor to work with you to solve your project management challenges



Dimensions for 66M HJT All Black Series Modules



I-V Curves for 66M HJT All Black Series Modules



Certifications



Electrical Data (STC)

|                            |               |            |       |       |
|----------------------------|---------------|------------|-------|-------|
| Peak Rated Power           | $P_{mpp}$ (W) | 370        | 365   | 360   |
| Maximum Power Voltage      | $V_{mpp}$ (V) | 41.20      | 40.80 | 40.45 |
| Maximum Power Current      | $I_{mpp}$ (A) | 8.98       | 8.95  | 8.90  |
| Open Circuit Voltage       | $V_{oc}$ (V)  | 49.02      | 48.82 | 48.62 |
| Short Circuit Current      | $I_{sc}$ (A)  | 9.48       | 9.45  | 9.41  |
| Module Efficiency *        | Eff (%)       | 20.5       | 20.2  | 20.0  |
| Maximum Series Fuse Rating | MF (A)        | 15         | 15    | 15    |
| Power Output Tolerance     |               | [- 3/+3 %] |       |       |

STC - Standard Test Conditions: Irradiation 1000 W/m<sup>2</sup> - Air mass AM 1.5 - Cell temperature 25°C  
\* Calculated using maximum power based on full positive output tolerance [-3/+3%]

Electrical Data (NMOT)

|                                  |               |       |       |       |
|----------------------------------|---------------|-------|-------|-------|
| Maximum Power - Pmax (Wp)        | $P_{mpp}$ (W) | 275   | 270   | 265   |
| Maximum Power Voltage - Vmpp (V) | $V_{mpp}$ (V) | 38.28 | 37.73 | 37.22 |
| Maximum Power Current - Impp (A) | $I_{mpp}$ (A) | 7.18  | 7.16  | 7.12  |
| Open Circuit Voltage - Voc (V)   | $V_{oc}$ (V)  | 46.25 | 46.06 | 45.87 |
| Short Circuit Current - Isc (A)  | $I_{sc}$ (A)  | 7.63  | 7.60  | 7.57  |

NMOT: Irradiance at 800W/m<sup>2</sup>, Ambient Temperature 20°C, Wind speed 1m/s

Mechanical Data

|                        |  |
|------------------------|--|
| Solar Cells            | 66 Heterojunction N-type cells (157.35 x 157.35mm)                                     |
| Module Construction    | Framed Glass-Backsheet   |
| Dimensions (L x W x D) | 1808 x 998 x 40mm (71.18 x 39.29 x 1.6 inch)   |
| Weight                 | 20.4 kg (44.9lbs)  |
| Frame                  | Double Webbed 15-Micron Anodized Aluminum Alloy  |
| Glass                  | 3.2mm Low-Iron Content, High-Transmission, PV Solar Glass with Anti Reflective Coating |
| Junction Box           | IP68 Rated Junction Box with 3 Bypass Diodes   |
| Output Cables          | 1.2-meter (47.24-inch) Symmetrical Cables  |
| Connectors             | Multi-Contact (Staubli) MC4  |

Certifications

UL Certification UL61215, UL61730 Pending

Temperature Ratings

|   |              |
|---|--------------|
| Nominal Operating Cell Temperature (NOCT) | +42°C (±2°C) |
| Temperature Coefficient of $P_{max}$      | -0.294%/°C   |
| Temperature Coefficient of $V_{oc}$       | -0.257%/°C   |
| Temperature Coefficient of $I_{sc}$       | 0.0374%/°C   |

Maximum Ratings

|                         |                   |
|-------------------------|-------------------|
| Operational Temperature | -40°C - +85°C     |
| Max System Voltage      | 1000V             |
| Mech. Load Test (Front) | 113 psf / 5400 PA |
| Mech. Load Test (Back)  | 50 psf / 2400 PA  |

Warranty

15Year Manufacturer's Workmanship Warranty  
25 Year Linear Power Guarantee

Packaging Configuration

Modules per box: 26 pieces  
Modules per 53' trailer: 780 pieces

