



144HC M10 SL Bifacial Module

144 Half-Cut Monocrystalline 520W – 540W

21%

Utilizes the latest M10 size super high efficiency Monocrystalline PERC cells. Half cut design further reduces cell to module (CTM) losses.

Stability & Looks

Rugged, double webbed frame design withstands wind, snow, and other mechanical stresses. Framed Glass-Backsheet aesthetic is ideal for high visibility installation.

Anti-Reflective

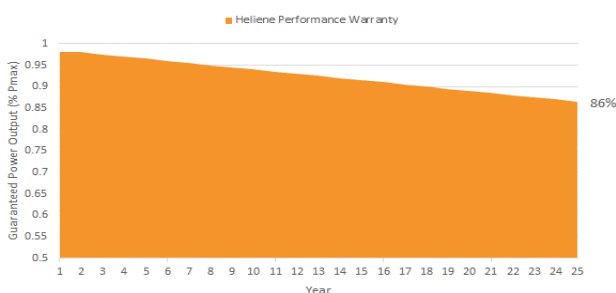
Premium solar glass with anti reflective coating delivers more energy throughout the day

High Reliability

Proven resistance to PID and reliable in high temperature and humidity environments.

No Compromise Guarantee

15 Year Product Warranty
25 Year Linear Performance Guarantee



Manufactured Using International Quality System Standards: ISO9001

Half-Cut Design with Split Junction Box Technology

Bifacial Technology Enabling Additional Energy Harvest from Rear Side

2% First Year Degradation & 0.5% Annual Power Degradation

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 (PVEL) independent quality evaluations

Bankable Reputation

- Established in 2010, Heliene is recognized as highly bankable 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

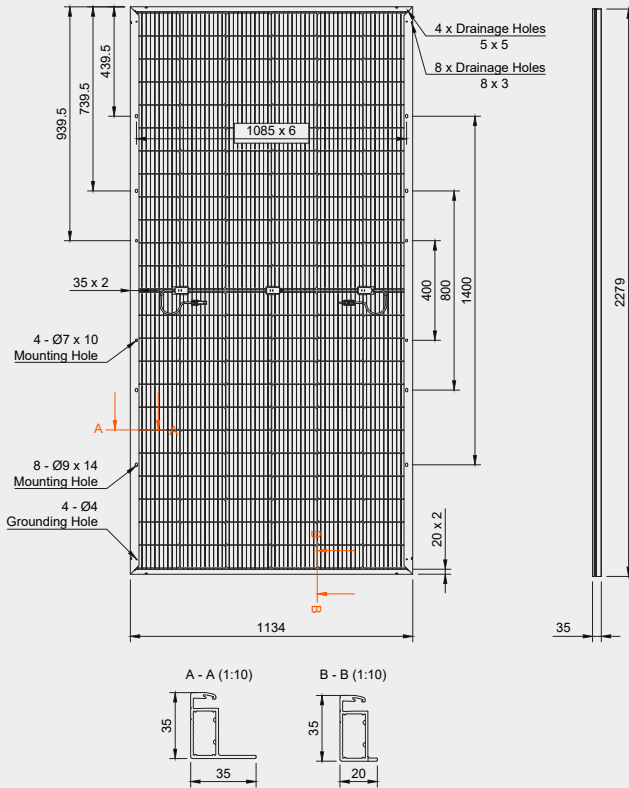
Local Sales, Service, and Support

- 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 144HC M10 SL Bifacial Series Modules



Electrical Data (STC)

Table with 6 columns: Parameter, Symbol, and five numerical values. Parameters include Peak Rated Power*, Maximum Power Voltage, Maximum Power Current, Open Circuit Voltage*, Short Circuit Current**, Module Efficiency, and Maximum Series Fuse Rating.

Bifaciality Factor*** 70 ± 5%

STC - Standard Test Conditions: Irradiation 1000 W/m² - Air mass AM 1.5 - Cell temperature 25 °C,

*P_{mpp} Production Tolerance ± 3%, *V_{oc} Production Tolerance ± 3%, **I_{sc} Production Tolerance ± 4%

***Bifaciality Factor = P_{mpprear}/P_{mppfront}, where P_{mpprear} and P_{mppfront} are tested at STC

Electrical Data (NMOT)

Table with 6 columns: Parameter, Symbol, and five numerical values. Parameters include Maximum Power, Maximum Power Voltage, Maximum Power Current, Open Circuit Voltage, and Short Circuit Current.

NMOT - Nominal Module Operating Temperature:

Irradiance at 800W/m2, Ambient Temperature 20°C, Wind speed 1m/s

Mechanical Data

Table with 2 columns: Component and Description. Components include Solar Cells, Module Construction, Dimensions, Weight, Frame, Glass, Junction Box, Output Cables, and Connectors.

Certifications

UL Certification UL61215, UL61730

Temperature Ratings

Table with 2 columns: Parameter and Value. Parameters include Nominal Module Operating Temperature (NMOT), Temperature Coefficient of P_{max}, Temperature Coefficient of V_{oc}, and Temperature Coefficient of I_{sc}.

Maximum Ratings

Table with 2 columns: Parameter and Value. Parameters include Operational Temperature, Max System Voltage, Mech. Load Test (Front), Mech. Load Test (Back), and Fire Type.

Warranty

15 Year Product Warranty

25 Year Linear Power Guarantee

Packaging Configuration

Table with 2 columns: Configuration and Quantity. Configurations include Modules per Pallet 40' Container, Modules per 40' Container, Modules per Pallet 53' Trailer, and Modules per 53' trailer.

I-V Curves for 144HC M10 SL Bifacial Series Modules

