



108HC M10 NTYP SL All Black Module

108 Half-Cut Monocrystalline 415W – 440W

22.53%

Utilizes the latest M10 size super high efficiency N-type silicon solar cells. Half cut design further reduces cell to module (CTM) losses.

Stability & Looks

Enhanced frame design to withstand higher wind, snow, and other mechanical stresses. Framed Glass-Backsheet aesthetic is ideal for high visibility installation.

High Energy Yield

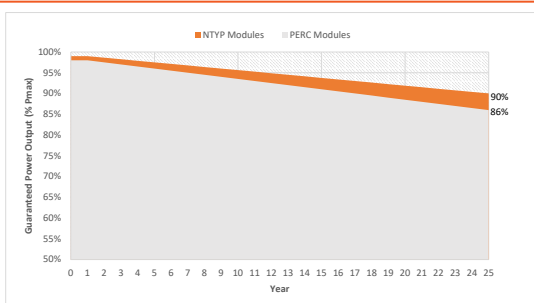
Highest efficiency & Low temperature coefficient of N-type silicon solar cells enable High Energy yield

High Reliability

N-type silicon solar cell result in low LID, reducing annual degradation and guaranteeing more power throughout the lifetime.

No Compromise Guarantee

25 Year Product Warranty
25 Year Linear Performance Guarantee



Highly efficient N-type Silicon Solar Cells

Low LCOE enabled by High Power Output & Low BOS Cost

1% First year degradation & 0.4% 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 (PV EL) 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

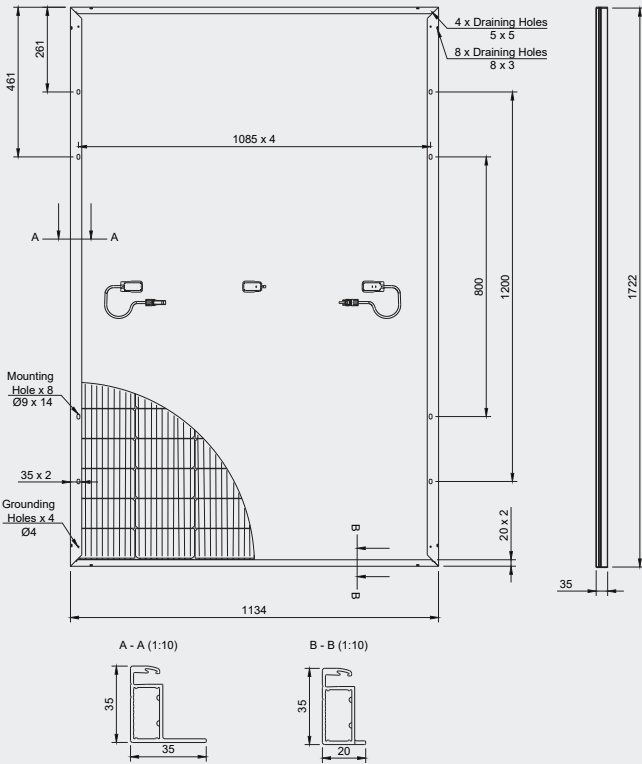
Local Sales, Service, and Support

- 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 108HC M10 NTYP SL All Black Series Modules



Electrical Data (STC)

Table with 8 columns: Parameter, Symbol, and 7 values. Parameters include Peak Rated Power*, Maximum Power Voltage, Maximum Power Current, Open Circuit Voltage*, Short Circuit Current**, Module Efficiency, Maximum Series Fuse Rating, and Power Sorting Range.

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%

Electrical Data (NMOT)

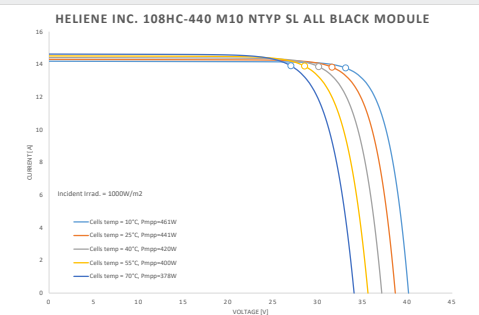
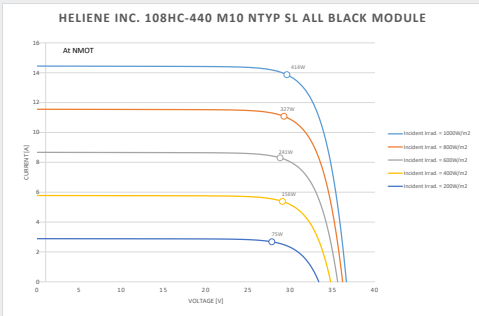
Table with 8 columns: Parameter, Symbol, and 7 values. Parameters include Maximum Power, Maximum Power Voltage, Maximum Power Current, Open Circuit Voltage, and Short Circuit Current.

NMOT - Nominal Module Operating Temperature: Irradiance at 800W/m², Ambient Temperature 20°C, Wind speed 1m/s

Mechanical Data

Table with 2 columns: Property and Value. Properties include Solar Cells, Module Construction, Dimensions (L x W x D), Weight, Frame, Glass, Junction Box, Output Cables, and Connectors.

I-V Curves for 108HC M10 NTYP SL All Black Series Modules



Certifications

UL Certification 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 Rating.

Warranty

Table with 2 columns: Warranty Type and Duration. Includes 25 Year Product Warranty and 25 Year Linear Power Guarantee.

Packaging Configuration

Table with 2 columns: Configuration and Quantity. Includes Modules per Pallet 40' Container (31 pieces), Modules per 40' Container (806 pieces), Modules per Pallet 53' Trailer (28 pieces), and Modules per 53' Trailer (672 pieces).



The specifications and key features contained in this datasheet may deviate slightly from our actual products due to the ongoing innovation and product enhancements. Helene Inc. reserves the right to make necessary adjustment to the information described herein at any time without prior notice. PV modules should be handled and installed only by qualified people. Please carefully read safety and installation instructions available for download from Helene website before using Helene PV modules. For warranty details, please refer to Product Warranty Document, also available for download from Helene website.