

144HC M10 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 Workmanship 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

1500V System Voltage Rating

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



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Dimensions for 144HC M10 Bifacial Series Modules



I-V Curves for 144HC M10 Bifacial Series Modules





Certifications & Listing







HSPE-144HC_M10_Bifacial-Rev.09.pdf May 25th, 2022

Electrical Data (STC)

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Peak Rated Power	P _{mpp} (W)	540	535	530	525	520
Maximum Power Voltage	$V_{mpp}(V)$	42.32	42.13	41.94	41.75	41.56
Maximum Power Current	I _{mpp} (A)	12.77	12.70	12.64	12.58	12.52
Open Circuit Voltage	$V_{oc}(V)$	50.22	49.97	49.72	49.23	48.73
Short Circuit Current	lsc (A)	13.50	13.44	13.37	13.32	13.28
Module Efficiency *	Eff (%)	20.9	20.7	20.5	20.3	20.1
Maximum Series Fuse Rating	MF (A)	30	30	30	30	30
Power Output Tolerance			[- 0/+3	%]		
Bifaciality Factor			70%			

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

Electrical Data (NMOT)

Maximum Power	$P_{mpp}(W)$	400	395	390	385	380
Maximum Power Voltage	$V_{mpp}(V)$	39.19	38.58	38.58	37.97	37.96
Maximum Power Current	I _{mpp} (A)	10.21	10.24	10.11	10.14	10.01
Open Circuit Voltage	$V_{oc}(V)$	47.13	46.89	46.66	46.20	45.73
Short Circuit Current	Isc (A)	10.87	10.82	10.77	10.72	10.70

NMOT - Nominal Module Operating Temperature:

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

Mechanical Data

Solar Cells	144 Half Cut, M10, 182mm, PERC Cells
Module Construction	Framed Glass-Backsheet
Dimensions (L x W x D)	2279 x 1134 x 40 mm (89.72 x 44.65 x 1.6 inch)
Weight	29.2 kg (64.3 lbs)
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	IP-68 rated with 3 bypass diodes
Output Cables	0.3-meter Symmetrical Cables
Connectors	Multi-Contact/ Stäubli MC4

Certifications

UL Certification

Temperature Ratings

Nominal Operating Cell Temperature (NOCT)	+45°C (±2°C)
Temperature Coefficient of P _{max}	-0.36%/°C
Temperature Coefficient of $V_{_{oc}}$	-0.28%/°C
Temperature Coefficient of I _{sc}	0.034%/°C

Warranty

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

Maximum Ratings

Operational Temperature	-40°C to +85°C
Max System Voltage	1500V
Mech. Load Test (Front)	113 psf / 5400 Pa
Mech. Load Test (Back)	50 psf / 2400 Pa
Fire Type	Type 1

Packaging Configuration

Modules per box:	27 pieces
Modules per 53' trailer:	702 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. Heliene 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 Heliene website before using Heliene PV modules. For warranty details, please refer to Product Warranty Document, also available for download from Heliene website.