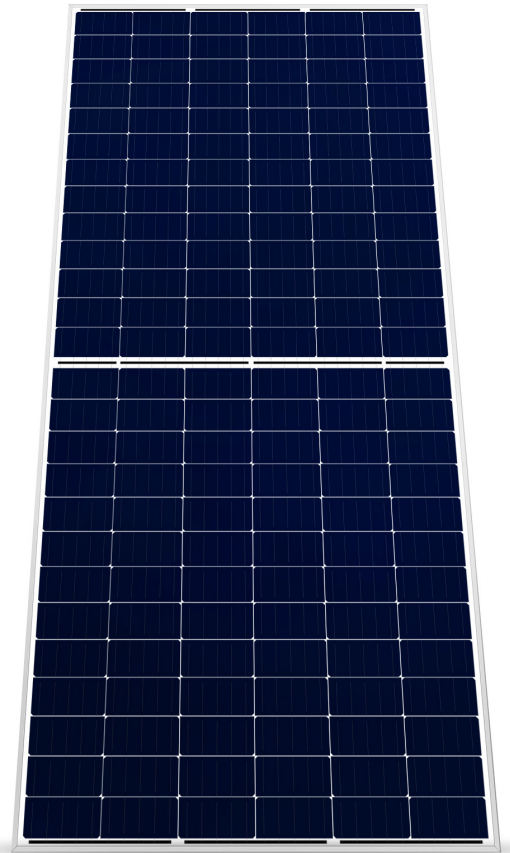




HELIENE

MAX SERIES

MONOCRYSTALLINE HALF CELL
PV MODULE



445 Wp

MAX POWER OUTPUT

20.33%

MAX EFFICIENCY

12 YEAR

PRODUCT WARRANTY

25 YEAR

LINEAR PERFORMANCE
GUARANTEE

HELIENE IS A PREMIER SOLAR MODULE MANUFACTURER, SERVICING THE GROWING SOLAR ENERGY MARKETS OF NORTH AMERICA.

COMBINING PROVEN EUROPEAN TECHNOLOGY WITH NORTH AMERICAN INGENUITY ALLOWS HELIENE TO MAKE A REAL COMMITMENT IN PROVIDING SMARTER ENERGY CHOICES FOR THE FUTURE.

HELIENE
www.heliene.com



HALF CELL DESIGN WITH SPLIT J-BOX TECHNOLOGY TO REDUCE SHADING EFFECT ON ENERGY GENERATION



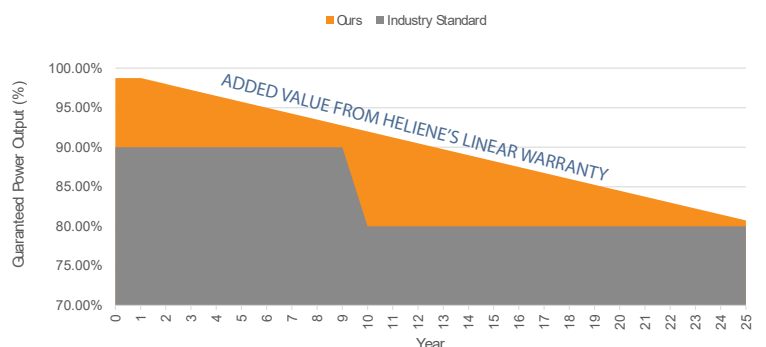
AVAILABLE IN 1000V OR 1500V SYSTEM VOLTAGE RATING



QUALITY MANAGEMENT SYSTEM FOLLOWING INTERNATIONAL STANDARD: ISO9001

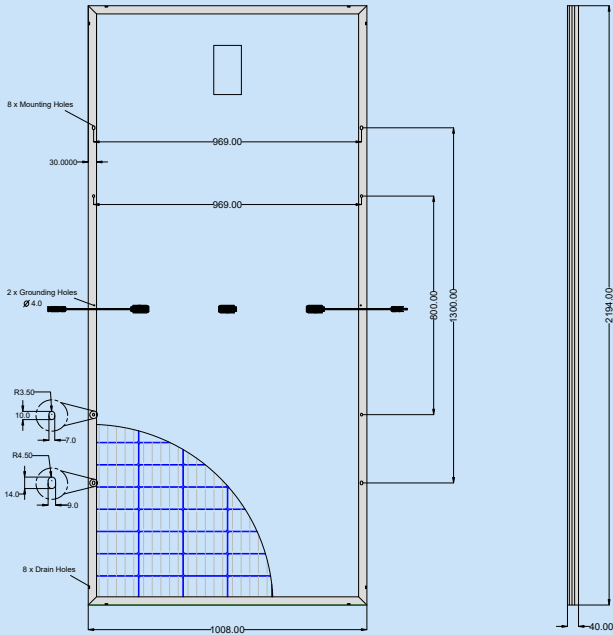
LINEAR PERFORMANCE GUARANTEE

12 YEAR WORKMANSHIP WARRANTY • 25 YEAR LINEAR PERFORMANCE GUARANTEE

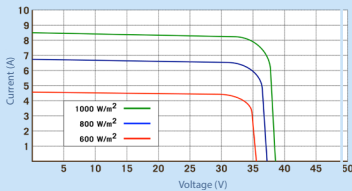
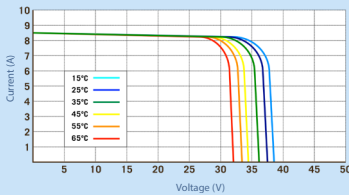


MAX SERIES

DIMENSIONS FOR HELIENE MAX SERIES MODULES



I-V CURVE FOR HELIENE MAX SERIES



CERTIFICATIONS



ELECTRICAL DATA (STC)

Peak Rated Power	P_{mpp} (W)	445	440	435	430
Maximum Power Voltage	V_{mpp} (V)	46.05	45.72	45.42	45.26
Maximum Power Current	I_{mpp} (A)	9.68	9.63	9.58	9.51
Open Circuit Voltage	V_{oc} (V)	53.19	53.09	52.85	52.69
Short Circuit Current	I_{sc} (A)	10.68	10.63	10.51	10.43
Module Efficiency *	Eff (%)	20.33	20.09	20.04	19.57
Maximum Series Fuse Rating	MF (A)	20	20	20	20
Power Output Tolerance		[- 4/+4 %]			

STC - Standard Test Conditions: Irradiation 1000 W/m² - Air mass AM 1.5 - Cell temperature 25 °C
 * Calculated using maximum power based on full positive output tolerance [-2/+2 %]

MECHANICAL DATA

Dimensions (L x W x D)	2194 x 1008 x 40 mm (86.38 x 39.68 x 1.6 inch)
Weight	25.0 kg (55.1lbs)
Output Cables	300 mm (11.8 inch) symmetrical cables with MC4 type connectors
Junction Box	3x IP-68 rated Junction Boxes
Frame	Double webbed 15 micron anodized aluminum alloy
Front Glass	Low-iron content, high-transmission PV solar glass
Solar Cells	156 Monocrystalline cells (158.75 x 79.38mm)

TEMPERATURE RATINGS

Nominal Operating Cell Temperature (NOCT)	+45°C (±2°C)
Temperature Coefficient of P_{max}	-0.35%/°C
Temperature Coefficient of V_{oc}	-0.32%/°C
Temperature Coefficient of I_{sc}	0.057%/°C

PACKAGING CONFIGURATION

Modules per box:	26 pieces
Modules per 53' trailer:	560 pieces

MAXIMUM RATINGS

Operational Temperature	-40°C - +85°C
Max System Voltage	1000V (*1500V) *Optional

WARRANTY

12 Year Manufacturer's Workmanship Warranty

25 Year Linear Power Guarantee

(Refer to product warranty page for details)