

MONO

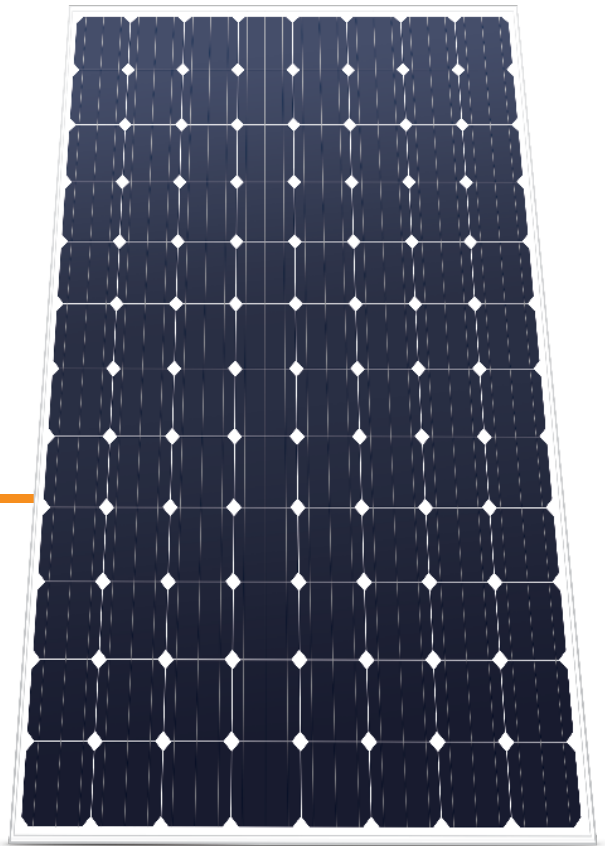
POLY



HELIENE

96^M

96-CELL MONOCRYSTALLINE MODULE



490 Wp

MAX POWER OUTPUT

19.1%

MAX EFFICIENCY

10 YEAR

PRODUCT WARRANTY

25 YEAR

LINEAR PERFORMANCE GUARANTEE



GUARANTEED POSITIVE POWER SORTING: [-0 : +4.99 WP]



AVAILABLE IN 1000V OR 1500V SYSTEM VOLTAGE RATING



MANUFACTURED ACCORDING TO INTERNATIONAL QUALITY SYSTEM STANDARDS: ISO9001



REDUCES SYSTEM TOTAL INSTALLED COST (TIC)

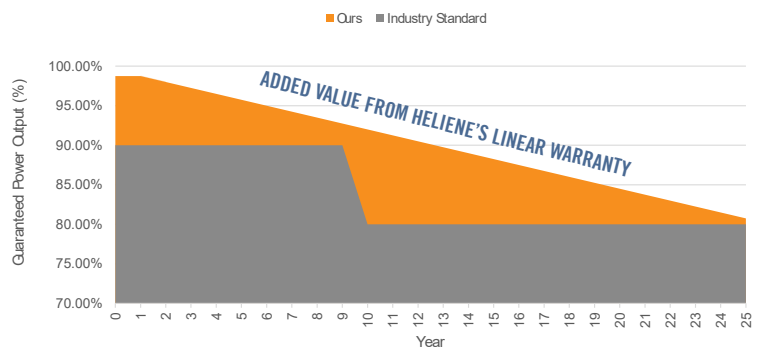
HELIENE INC. IS A PREMIER SOLAR MODULE MANUFACTURER, SERVICING THE GROWING SOLAR ENERGY MARKETS OF NORTH AMERICA.

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

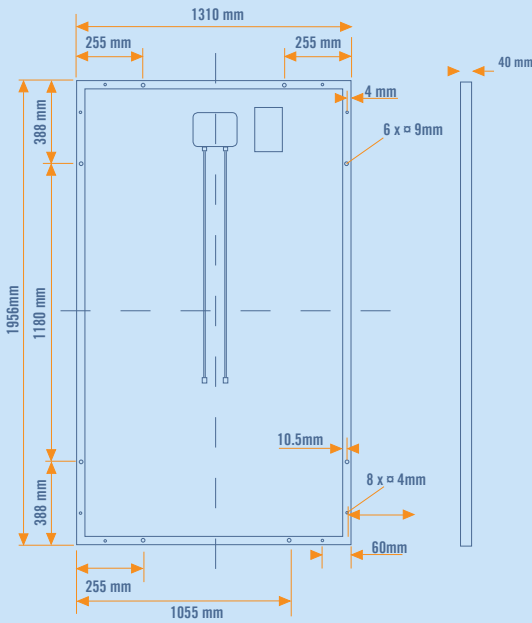
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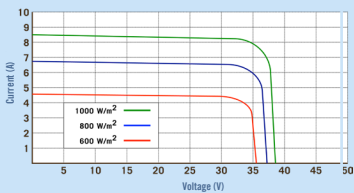
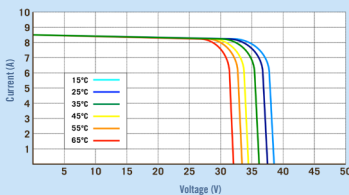
10 YEAR WORKMANSHIP WARRANTY • 25 YEAR LINEAR PERFORMANCE GUARANTEE



DIMENSIONS FOR HELIENE 96M SERIES MODULES



I-V CURVE FOR HELIENE 96M SERIES



CERTIFICATIONS



ELECTRICAL DATA (STC)

| | | | | | | |
|----------------------------|---------------|-------------------|-------|-------|-------|-------|
| Peak Rated Power | P_{mpp} (W) | 490 | 480 | 470 | 465 | 460 |
| Maximum Power Voltage | V_{mpp} (V) | 52.66 | 52.26 | 51.86 | 51.66 | 51.46 |
| Maximum Power Current | I_{mpp} (A) | 9.36 | 9.24 | 9.11 | 9.05 | 8.99 |
| Open Circuit Voltage | V_{oc} (V) | 62.99 | 62.59 | 62.19 | 61.99 | 61.79 |
| Short Circuit Current | I_{sc} (A) | 10.06 | 9.91 | 9.76 | 9.69 | 9.62 |
| Module Efficiency * | Eff (%) | 19.1 | 18.7 | 18.3 | 18.1 | 18.0 |
| Maximum Series Fuse Rating | MF (A) | 20 | 20 | 20 | 20 | 20 |
| Power Output Tolerance | | [- 0 , + 4.99] Wp | | | | |

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 [-0 , +4.99] Wp

MECHANICAL DATA

| | |
|------------------------|---|
| Dimensions (L x W x D) | 1956 x 1310 x 40 mm (77 x 51.6 x 1.6 inch) |
| Weight | 38 kg (83.7 lbs) |
| Output Cables | 1.5 m (47.2 inch) symmetrical cables with MC4 type connectors |
| Junction Box | IP-67 rated with bypass diodes |
| Frame | Double webbed 5 micron anodized aluminum alloy |
| Front Glass | Low-iron content, high-transmission PV solar glass |
| Solar Cells | 96 Monocrystalline cells (156 x 156 mm) |

CERTIFICATIONS

| | |
|-------------------|-------------------------|
| UL Certification | ULC/ORD-C1703-1, UL1703 |
| IEC Certification | Optional |

TEMPERATURE RATINGS

| | |
|---|--------------|
| Nominal Operating Cell Temperature (NOCT) | +45°C (±2°C) |
| Temperature Coefficient of P_{max} | -0.39%/°C |
| Temperature Coefficient of V_{oc} | -0.31%/°C |
| Temperature Coefficient of I_{sc} | 0.045%/°C |

MAXIMUM RATINGS

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

WARRANTY

10 Year Manufacturer's Workmanship Warranty

25 Year Linear Power Guarantee

(Refer to product warranty page for details)

PACKAGING CONFIGURATION

| | |
|--------------------------|------------|
| Modules per box: | 25 pieces |
| Modules per 53' trailer: | 550 pieces |

