



# HELIENE

PHOTOVOLTAIC  
MODULES

## 72<sup>M</sup> - SERIES

72-Cell Monocrystalline



### 335Wp

MAX POWER OUTPUT

### 17.5%

MAX EFFICIENCY

### 10 YEAR

PRODUCT WARRANTY

### 25 YEAR

LINEAR PERFORMANCE GUARANTEE

HELIENE INC. IS NORTH AMERICA'S PREMIER MODULE MANUFACTURER, SERVICING THE GROWING SOLAR ENERGY MARKETS OF CANADA AND THE US.

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

**Heliene Inc.**  
[www.heliene.ca](http://www.heliene.ca)

Final Assembly in USA

 Qualifies for Made in MN Incentive



THE MOST POWERFUL PRODUCT IN THE INDUSTRY



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



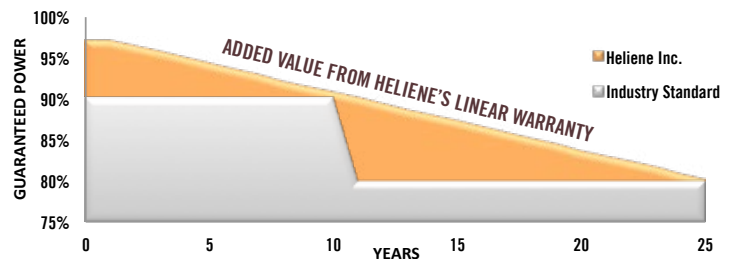
MANUFACTURED ACCORDING TO INTERNATIONAL QUALITY SYSTEM STANDARDS: **ISO9001**



EXCELLENT PERFORMANCE UNDER LOW LIGHT CONDITIONS SUCH AS CLOUDY DAYS, MORNING AND EARLY EVENING

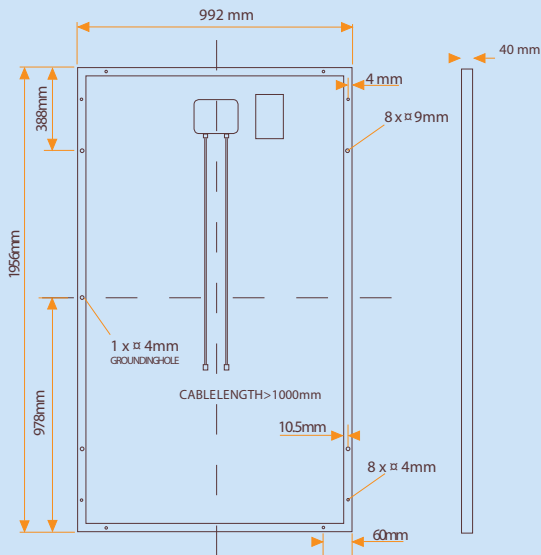
### LINEAR PERFORMANCE GUARANTEE

10 YEAR WORKMANSHIP WARRANTY • 25 YEAR LINEAR PERFORMANCE GUARANTEE

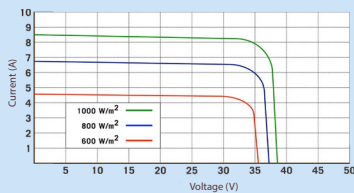
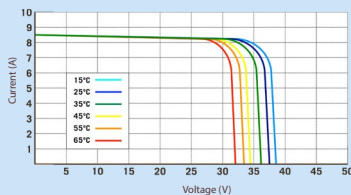


# 72<sup>M</sup> - HD SERIES

## DIMENSIONS FOR HELIENE 72M HD SERIES MODULES



## I-V CURVES FOR HELIENE 72M HD SERIES



## CERTIFICATIONS



## ELECTRICAL DATA (STC)

Peak Rated Power	$P_{mpp}$ (W)	335	330	325	320
Maximum Power Voltage	$V_{mpp}$ (V)	38.7	38.3	37.9	37.43
Maximum Power Current	$I_{mpp}$ (A)	8.73	8.68	8.66	8.655
Open Circuit Voltage	$V_{oc}$ (V)	46.2	46.1	45.9	45.74
Short Circuit Current	$I_{sc}$ (A)	9.2	9.15	9.1	9.05
Module Efficiency *	Eff (%)	17.5	17.3	17.0	16.8
Power Output Tolerance		[- 0, + 4.99] Wp			

STC - Standard Test Conditions: Irradiation 1000 W/m<sup>2</sup> - 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 992 x 40 mm (77 x 39 x 1.6 inch)
Weight	21 kg (46.3 lbs)
Output Cables	> 1.0 m (39 inch) symmetrical cables with MC4 type connectors
Junction Box	IP-65 rated with bypass diodes
Frame	Double webbed 5 micron anodized aluminum alloy
Front Glass	Low-iron content, high-transmission PV solar glass
Solar Cells	72 Monocrystalline cells (156 x 156 mm), with aluminum surface shield technology

## CERTIFICATIONS

UL Listed	ULC/ORD-C1703-1, UL1703
IEC Listed	IEC 61215, IEC 61730

## 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(IEC) / 600V(UL)
Max Series Fuse Rating	15 A

## 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:	750 pieces



www.simpleray.com  
1.800.952.3235  
email: sales@simpleray.com

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