

# HELIENE

PHOTOVOLTAIC  
MODULES

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

60-Cell Monocrystalline



**280Wp**

MAX POWER OUTPUT

**17.4%**

MAX EFFICIENCY

**10 YEAR**

PRODUCT WARRANTY

**25 YEAR**

LINEAR PERFORMANCE GUARANTEE



**Canadian**  
Owned & Operated



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

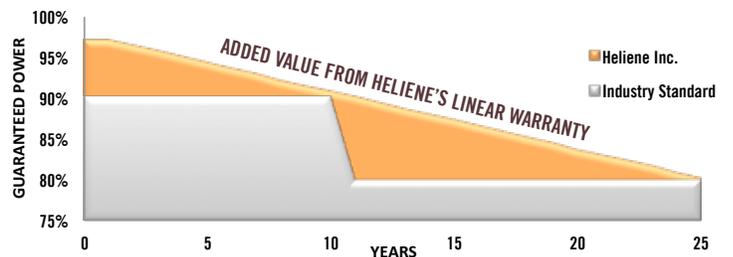
HELIENE INC. IS CANADA'S PREMIER MODULE  
MANUFACTURER, SERVICING THE GROWING  
SOLAR ENERGY MARKETS OF NORTH AMERICA.

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

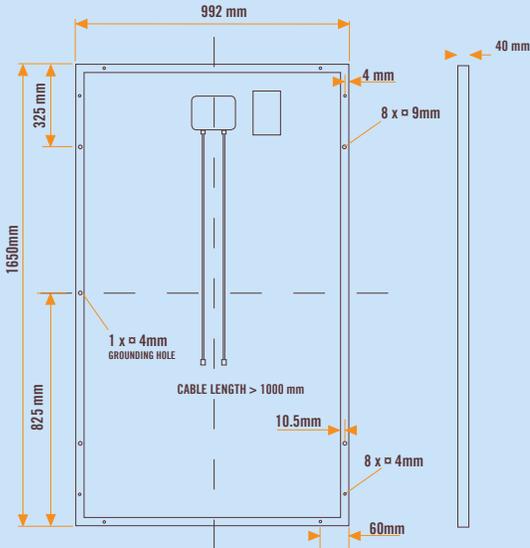
**Heliene Inc.**  
[www.heliene.ca](http://www.heliene.ca)

### LINEAR PERFORMANCE GUARANTEE

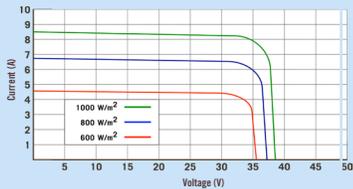
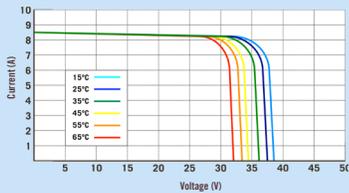
10 YEAR WORKMANSHIP WARRANTY • 25 YEAR LINEAR PERFORMANCE GUARANTEE



## DIMENSIONS FOR HELIENE 60M HD SERIES MODULES



## I-V CURVES FOR HELIENE 60M HD SERIES



## CERTIFICATIONS



## ELECTRICAL DATA (STC)

Peak Rated Power	$P_{mpp}$ (W)	280	275	270	265
Maximum Power Voltage	$V_{mpp}$ (V)	32.4	31.9	31.5	31.17
Maximum Power Current	$I_{mpp}$ (A)	8.74	8.69	8.58	8.50
Open Circuit Voltage	$V_{oc}$ (V)	38.9	38.8	38.6	38.4
Short Circuit Current	$I_{sc}$ (A)	9.06	9.04	9.02	9.00
Module Efficiency *	Eff (%)	17.4	17.1	16.8	16.5
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)	1650 x 992 x 40 mm (65 x 39 x 1.6 inch)
Weight	19 kg (42 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	60 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

## PACKAGING CONFIGURATION

Modules per box:	25 pieces
Modules per 53' trailer:	750 pieces

## 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)