



**HELIENE**  
PHOTOVOLTAIC  
MODULES

ÉNERGIE  
**MATRIX**  
ENERGY



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# HEE300M

## SOLAR MODULE

The HELIENE HEE300M solar modules series are made using the latest generation of mono-crystalline solar cells, designed and manufactured by leading European and North American suppliers. The absorption surface, and 3 bus bar design provide an aesthetic look and world class power output. High power rates allow designers to increase energy output with less modules with the highest cost effectiveness.

HELIENE modules only incorporate high efficiency solar cells, making it possible to obtain maximum solar yield. 4mm thick transparent and textured solar glass, and 40mm aluminium frame guarantee the best resistance and reliability. High power modules with maximum efficiency and tight tolerance are able to obtain optimum energy production in any project.

### PRODUCT DESCRIPTION

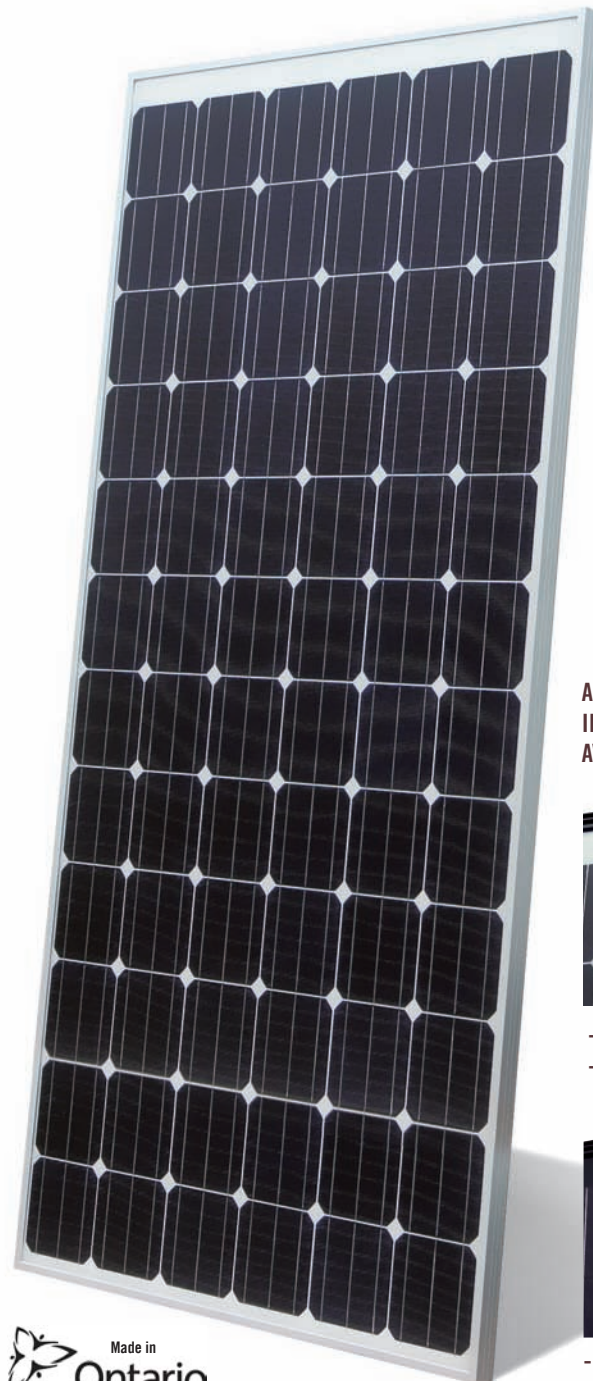
**Category:** monocrystalline textured  
**Cell Qty:** 72 cells

### MODULE SIZE

**Length x Width:** 1.984 m X 0.984 m  
**Area:** 1.95 m<sup>2</sup>  
**Thickness:** 40 mm  
**Weight:** 26 Kg

### OUTPUT CLASSES

HEE300M A78:	300 Wp
HEE300M A77:	295 Wp
HEE300M A76:	290 Wp
HEE300M A75:	285 Wp
HEE300M A74:	280 Wp
HEE300M A73:	275 Wp



ARCHITECTURAL  
INTEGRATION DESIGNS  
AVAILABLE:



- White Backsheet  
- Black Frame

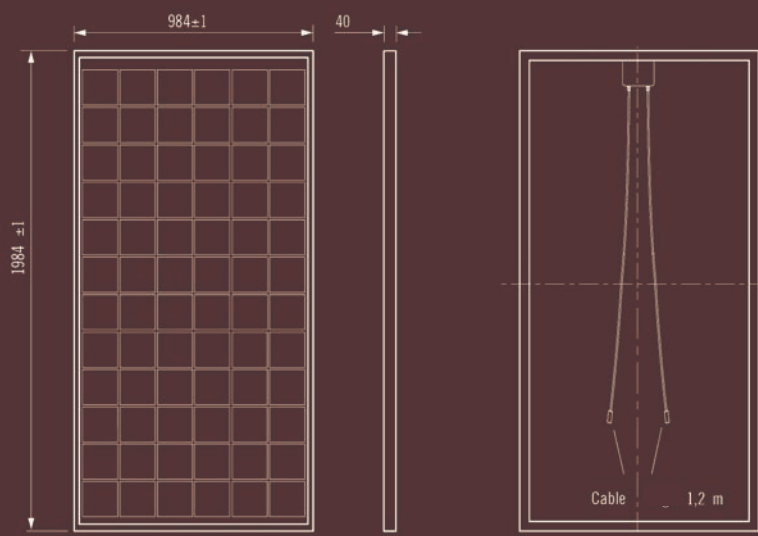


- Black Backsheet  
- Black Frame



# HEE300M

## SOLAR MODULE



\*All units are in mm, unless otherwise noted

**ARTICLE REF** HEE300MA78 HEE300MA77 HEE300MA76 HEE300MA75 HEE300MA74 HEE300MA73

### OUTPUT CLASSES

#### ELECTRICAL DATA STC

Rated Output P <sub>mp</sub> (W)	300	295	290	285	280	275
MPP voltage (V)	36.55	36.4	36.25	36.10	35.90	35.75
MPP current (A)	8.20	8.10	8.00	7.90	7.80	7.70
Open-circuit voltage (V)	44.96	44.77	44.65	44.40	44.16	43.97
Short-circuit current (A)	8.77	8.67	8.56	8.45	8.35	8.24

STC - Standard Test Conditions: Air mass AM 1.5 - irradiation 1000 W/m<sup>2</sup> - Cell temperature 25 °C

#### ELECTRICAL DATA NOCT

Rated Output P <sub>mp</sub> (W)	225	221	218	214	210	207
MPP voltage (V)	33.72	33.59	33.45	33.31	33.12	32.99
MPP current (A)	6.67	6.59	6.51	6.43	6.35	6.26
Open-circuit voltage (V)	41.48	41.31	41.20	40.97	40.74	40.57
Short-circuit current (A)	7.14	7.05	6.96	6.88	6.79	6.70

The NOCT values are typical values. NOCT: Nominal operating cell temperature (=45 °C)  
Typical cell temperature with: Irradiation 800 W/m<sup>2</sup> - Ambient temperature 20 °C - Wind speed 1 m/s

#### OTHER ELECTRICAL PARAMETERS

System voltage (V)	600	Temperature coefficient P <sub>mp</sub> (%/C)	-0.44
Temperature coefficient I <sub>sc</sub> (%/C)	0.07	Temperature coefficient U <sub>oc</sub> (%/C)	-0.34

#### LIMIT VALUES

Permissible module temperature -40 °C to + 80 °C

#### DESIGN

Cells	72 mono-crystalline solar cells, 3 bus bars
Cell dimensions	156 mm x 156 mm
Front side	4 mm solar glass, highly transparent and anti-reflective
Encapsulation	EVA - solar cells - EVA
Backside	Multilayer sheet
Frame	Anodized aluminium
Connection	2 x 1.2 m solar cables with multicontact connectors
Bypass diodes	3 pieces

**QUALIFICATIONS AND CERTIFICATES** EC 61215, IEC 61730, UL1703, ULC/ORD-C1703-01 (in process)

**WARRANTIES** 10 years for manufacturing faults, 90% of nominal output up to 10 years, and 80% of nominal output up to 25 years

**OUTPUT TOLERANCE** +/- 4 Wp