

- **High Temperature and Low Light Performance**
- **20 Year Warranty on Power Output at 80%**
- **Quick-Connect Terminals\***
- **Bypass Diodes for Shadow Tolerance**
- **UL Listed to 600 VDC** 
- **Meets IEC 61646 Requirements**



#### PERFORMANCE CHARACTERISTICS

Rated Power (Pmax): 136W

Production Tolerance:  $\pm 5\%$

#### CONSTRUCTION CHARACTERISTICS

Dimensions: Length: 5486mm (216"), Width: 394mm (15.5"), Depth: 4mm (0.2"), 16mm (0.6") including junction box.

Weight: 7.7 kg (17.0 lbs.).

Output Cables:  $\sim 2.5\text{mm}^2$  cable with weatherproof DC rated quick-connect terminals\* 560mm (22") length.

By-pass Diodes: Connected across every solar cell.

Laminate Encapsulation: Durable ETFE (e.g. Tefzel<sup>®</sup>) high light-transmissive polymer.

Adhesive: Ethylene propylene copolymer adhesive-sealant with microbial inhibitor.

Cell Type: 22 triple junction amorphous silicon solar cells 356 x 239mm (14" x 9.4") connected in series.



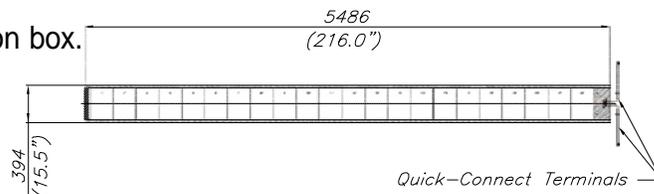
## QUALIFICATIONS AND SAFETY

Listed by Underwriter's Laboratories for electrical and fire safety (Class A Max. Slope 2/12, Class B Max. Slope 3/12, and Class C Unlimited Slope fire ratings) for use in systems up to 600 VDC.

LAMINATE STANDARD CONFIGURATION Photovoltaic laminate with potted terminal housing assembly with output cables and quick connect terminals\*.

OPTIONAL CONFIGURATION Photovoltaic laminate with junction box.

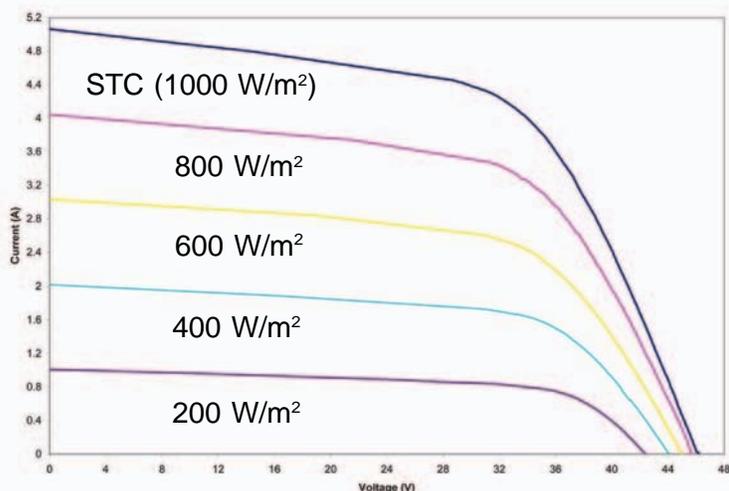
\*e.g., Multi-Contact (MC®) connectors.



## APPLICATION CRITERION

- New or other qualified roof installations
- 16" minimum steel pan width
- PVDF Coated (Galvalume® or Zinalume® steel metal pan)
- Steel pans with flat surface (without pencil beads, stiffening ribs, or decorative stippling)
- Installation by certified installers only
- Installation temperature between 10°C - 40°C (50°F - 100°F)
- Maximum roof temperature 85°C (185°F)
- Refer to manufacturer's installation guide for approved substrates & installation methods

IV Curves at various levels of irradiance at  
Air Mass 1.5 and 25° C Cell Temperature



PVL-136

All measurements in mm.  
Inches in parentheses.  
Tolerances Length: ± 5mm (1/4")  
Width: ± 3mm (1/8")

## ELECTRICAL SPECIFICATIONS: STC

(1000 W/m², AM 1.5, 25° C Cell Temperature)

Maximum Power (Pmax): 136 W

Voltage at Pmax (Vmp): 33.0 V

Current at Pmax (Imp): 4.1 A

Short-circuit Current (Isc): 5.1 A

Open-circuit Voltage (Voc): 46.2 V

Maximum Series Fuse Rating: 8 A

## NOCT

(800 W/m<sup>2</sup>, AM 1.5, 1 m/sec. wind)

Maximum Power (P<sub>max</sub>): 105 W

Voltage at P<sub>max</sub> (V<sub>mp</sub>): 30.8 V

Current at P<sub>max</sub> (I<sub>mp</sub>): 3.42 A

Short-circuit Current (I<sub>sc</sub>): 4.1 A

Open-circuit Voltage (V<sub>oc</sub>): 42.2 V

NOCT: 46° C

## TEMPERATURE COEFFICIENTS

(at AM 1.5, 1000 W/m<sup>2</sup> irradiance)

Temperature Coefficient of I<sub>sc</sub>: 5.1mA/K

Temperature Coefficient of V<sub>oc</sub>: -176mV/K

Temperature Coefficient of P<sub>max</sub>: -286mW/K

Temperature Coefficient of I<sub>mp</sub>: 4.1mA/K

Temperature Coefficient of V<sub>mp</sub>: -102mV/K