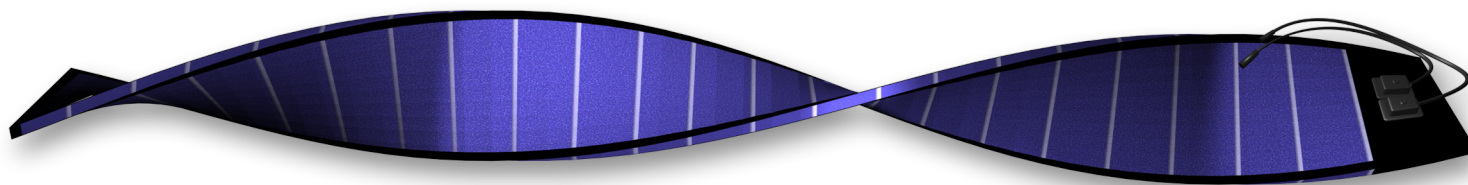




PVL-144

MODEL NUMBER



PERFORMANCE CHARACTERISTICS

- Rated Power (Pmax): 144W
- Production Tolerance: $\pm 5\%$

CONSTRUCTION CHARACTERISTICS

- 25 year warranty on power output at 80%.
- Dimensions: Length: 5486 mm (216"), Width: 394 mm (15.5"), Depth: 4 mm (0.2"), 16mm (0.6") including potted terminal housing assembly.
- Weight: 7.7 kg (17.0 lbs.). Less than one pound per square foot.
- Output Cables: 4 mm² (12 AWG) x2 cable with weatherproof DC rated quick-connect terminals, 560 mm (22") length.
- By-pass Diodes: Connected across every solar cell: this protects the solar laminate from power loss in case of partial shading or damage of individual solar cells while other cells are exposed to full sunlight.
- Laminate Encapsulation: Durable ETFE (e.g. Tefzel®) high light-transmissive polymer.
- Adhesive: Ethylene propylene copolymer adhesive-sealant with microbial inhibitor.
- Cell Type: 22 triple junction amorphous silicon solar cells 356 x 239 mm (14" x 9.4") connected in series.

FEATURES

- High Temperature and Low Light Performance
- Flexible and lightweight - Virtually unbreakable, weighs less than one pound per square foot, compared to five pounds per square foot for a traditional solar system
- Adheres directly to the roof without penetrations - approved for roofing manufacturer warranties
- Triple Junction Technology - captures the complete solar spectrum more efficiently
- Generates electricity at low light levels - produces more electricity per watt than any other system
- Approved by state revenue departments for tax incentives and rebates
- Bypass diode across every solar cell - minimizes power loss when shaded

QUALIFICATIONS AND SAFETY

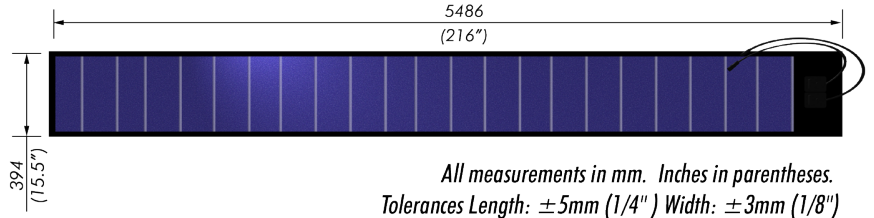
- 
 Listed by Underwriters Laboratories for electrical and fire safety (Class A Max. Slope 2/12, Class 8 Max. Slope 3/12, and Class C Unlimited Slope fire ratings) for use in systems up to 600 VDC. • Meets IEC 61646 Requirements.

PVL-144

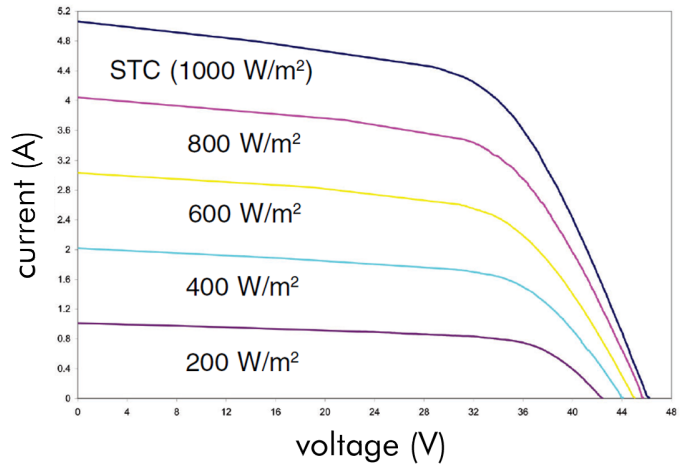
MODEL NUMBER

APPLICATION CRITERION

- For installation on approved substrates.
- Installation by certified installers only
- Installation temperature between 10°C - 40°C (50°F - 100°F)
- Maximum roof temperature 85°C (185°F)
- Minimum slope five eighth inch of fall per foot (5/8" per foot).
- Maximum slope 21:12
- Refer to manufacturers installation guide for approved substrates & installation



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



ELECTRICAL SPECIFICATIONS for one PVL-144:

Standard Test Conditions (STC) (1000 W/m ² • AM 1.5, 25° C Cell Temperature)	Nominal Operating Cell Temperature (NOCT) (800 W/m ² , AM 1.5, 1 m/sec. wind)
- Maximum Power (Pmax): 144 W	- Maximum Power (Pmax): 111 W
- Voltage at Pmax (Vmp): 33.0 V	- Voltage at Pmax (Vmp): 30.8 V
- Current at Pmax (Imp): 4.36 A	- Current at Pmax (Imp): 3.6 A
- Short-circuit Current (Isc): 5.3 A	- Short-circuit Current (Isc): 4.3 A
- Open-circuit Voltage (Voc): 46.2 V	- Open-circuit Voltage (Voc): 42.2 V
- Maximum Series Fuse Rating: 10 A	- NOCT: 46°C

TEMPERATURE COEFFICIENTS

(at AM 1.5, 1000 W/m² irradiance)

- Temperature Coefficient of Isc: 5.3 mA/K (0.10%/°C)
- Temperature Coefficient of Imp: 4.36 mA/K (0.10%/°C)
- Temperature Coefficient of Voc: -176 mV/K (-0.38%/°C)
- Temperature Coefficient of Vmp: -102 mV/K (-0.31%/°C)
- Temperature Coefficient of Pmax: -302 mW/K (-0.21%/°C)

NOTES:

1. Actual performance may vary up to 10% from rated power due to low temperature operation, spectral and other related effects. Maximum system open circuit voltage not to exceed 600 VDC per UL.
2. Electrical specifications are based on measurements performed at standard test conditions of 1000/m2 irradiance, Air Mass 1.5, and Cell Temperature of 25°C after stabilization.
3. During the first 8-10 weeks of operation, electrical output exceeds specified ratings.
4. Power output may be higher by 15%, operating voltage may be higher by 11% and operating current may be higher by 4%.
5. Specification subject to change without notice.

