

UNI-SOLAR®

SOLAR LAMINATES PVL-SERIES



- *Power Ratings From 31W - 136W*
- *Lightweight & Flexible*
- *Easy Peel & Stick Application*
- *Virtually Unbreakable (No Glass)*
- *Shadow & High Heat Tolerant*
- *Delivers Up To 20% More Real Energy*



**More
kW Hrs**

UNI-SOLAR® PVL (photovoltaic laminates) are flexible and lightweight laminates made exceptionally durable by encapsulation in UV stabilized polymers. The polymer encapsulation is partially constructed of durable ETFE (e.g. Tefzel®, a high light-transmissive polymer).



Flexible

Why do UNI-SOLAR Products Outperform Others? All solar panels are rated in terms of peak power output (watts). Outdoors, under normally higher operating temperatures, solar panel performance changes, depending on temperature, solar spectrum (light color) and related effects. UNI-SOLAR products are less affected by temperature than monocrystalline or polycrystalline solar technology products. The result is up to 20% more delivered energy.**

** Source: Solfest, "Module Shoot Out"



**Light
Weight**

Applications

- Grid Connected Metal Roof Shade & Parking Structures
- Grid Connected Agricultural Metal Roof Structures
- Residential Grid-Connected Systems
- Schools & Institutions
- Renovation or New Construction



No Glass



Durable



**Shadow
Tolerant**



**High Temp
Performance**

UNI-SOLAR®

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SPECIFICATIONS

| Model | PVL-68 | PVL-124 | PVL-136 |
|------------------------------|---------------------|---------------------|-------------------|
| Rated Power (Watts) | 68 | 124 | 136 |
| Max Power Point VMPP (V) | 16.5 | 30 | 33 |
| Max Power Point VMPP (A) | 4.1 | 4.1 | 4.1 |
| Open Circuit Voltage | 23.1 | 42 | 46.2 |
| Short Circuit Current (Amps) | 16.5 | 30.0 | 33.0 |
| Laminate Length | 112.1 in. / 2849 mm | 197.1 in. / 5007 mm | 216 in. / 5486 mm |
| Laminate Width | 15.5 in / 394 mm | 15.5 in / 394 mm | 15.5 in / 394 mm |
| Laminate Thickness | 0.1 in. / 2.5 mm | 0.1 in. / 2.5 mm | 0.1 in. / 2.5 mm |
| Weight | 9 lbs. / 4.1 kg | 16.5lbs / 7.5 kg | 17lb ./ 7.7 kg |
| Maximum Slope | 21:12 (60°) | 21:12 (60°) | 21:12 (60°) |
| Minimum Slope | 1:12 (5°) | 1:12 (5°) | 1:12 (5°) |
| Warranty On Power Output | 20 yr. | 20 yr. | 20 yr. |

NOTES: During the first 8-10 weeks of operation, electrical output exceeds specified ratings. Power output may be higher by 15%, operating voltage may be higher by 11% and operating current may be higher by 4%. Electrical specifications (±5%) are based on measurements performed at standard test conditions of 1000 W/m² irradiance, Air Mass 1.5, and Cell Temperature of 25°C after long-term stabilization. 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. Specifications subject to change without notice.

Quality Assurance, Proven Reliability UNI-SOLAR laminates comply with the following qualification tests:

- UL Listed Up To 600 VDC
- Meets IEC 61646 Requirements
- Thermal Cycling
- Humidity-Freeze Test
- Damp Heat Test
- UV-Test
- Wet Insulation Test
- Mechanical Load Test
- Hail Impact Test
- Robustness of Terminations Test
- Quick-connect terminal housing

Refer to technical data sheet & owners manuals
for approved substrates and application criteria

Product Description and Application

Each PVL (photovoltaic laminate) utilizes the proprietary Triple Junction solar cells manufactured by UNI-SOLAR. These cells are made in a roll-to-roll deposition process on a continuous roll of stainless steel. The result is a unique, flexible, lightweight solar cell.

The UNI-SOLAR PV Laminates are encapsulated in UV stabilized polymers making them exceptionally durable.

Bypass diodes are connected across each cell, allowing the modules to produce power even when partially shaded.

These special roofing laminates are designed to be bonded on 16-inch wide (minimum), flat steel pans. They come with the bonding adhesive factory installed on the back of the laminate. Included is a rugged, weatherproof junction box and/or Quick Connect Terminals.

Distributed by:



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