FlexLight Photovoltaic Laminate (PVL) Series

ADVANCED GREEN TECHNOLOGIES

PVL-952

MODEL NUMBER

PERFORMANCE CHARACTERISTICS

- Rated Power (Pmax): 952W
- Production Tolerance: ±5%

CONSTRUCTION CHARACTERISTICS

- 7 PVL-136 factory applied to roofing membrane.
- 20 year warranty on power output at 80%
- Dimensions: 200 sq. ft., Length: 20 feet, Width: 10 feet
- Weight: 259lbs
- Output Cables: 2.5 mm cable with weatherproof DC rated quick-connect terminals, 560 mm (22") length for each of 7 PV laminates.
- By-pass Diodes: Connected across every solar cell: this protects the solar cell 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:154 triple junction amorphous silicon solar cells 356 x 239 mm (14" x 9.4") connected in series.

FEATURES

- Factory laminated to TPO, EPDM, or other roofing membrane
- Flexible and lightweight - Virtually unbreakable, weighs just over 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

SUBSTRATE CONFIGURATION

- 60 Mil TPO Membrane or 90 Mil EPDM Membrane- Factory Laminated. Also available on other roofing membranes. Please contact AGT for details.

QUALIFICATIONS AND SAFETY

Listed by Underwriters Laboratories Class A for:
New Construction, Non-Combustable Decks, Combustable Decks, Retrofit Over Exsisting Roof.

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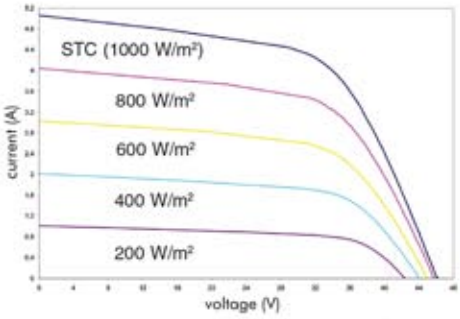
TECHNICAL SPECIFICATIONS

PVL-952

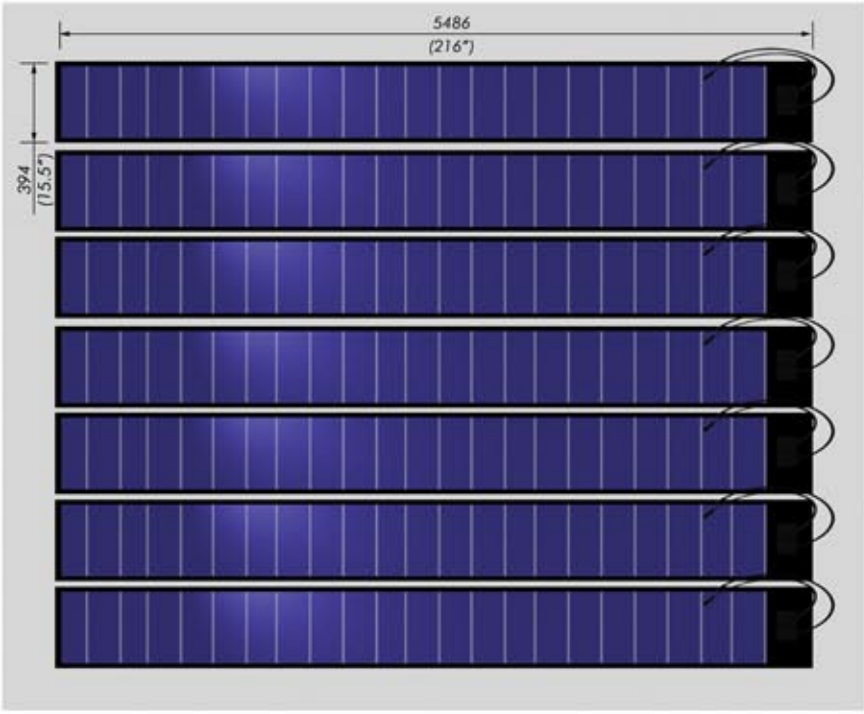
UNI-SOLAR
United Solar Ovonic

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 one eighth inch of fall per foot (1/8" per foot)
- Maximum slope 21:12
- Refer to manufacturers installation guide for approved substrates & installation



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



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

ELECTRICAL SPECIFICATIONS for each of 7 PVL-136:

Standard Test Conditions (STC)	Nominal Operating Cell Temperature (NOCT)
(1000 W/m2• AM 1.5, 25° C Cell Temperature)	(800 W/m2, AM 1.5, 1 m/sec. wind)
- Maximum Power (Pmax): 136 W	- Maximum Power (Pmax): 105 W
- Voltage at Pmax (Vmp): 33.0 V	- Voltage at Pmax (Vmp): 30.8 V
- Current at Pmax (Imp): 4.1 A	- Current at Pmax (Imp): 3.42 A
- Short-circuit Current (Isc): 5.1 A	- Short-circuit Current (Isc): 4.1 A
- Open-circuit Voltage (Voc): 46.2 V	- Open-circuit Voltage (Voc): 42.2 V
- Maximum Series Fuse Rating: 8 A	- NOCT: 46° C

TEMPERATURE COEFFICIENTS

(at AM 1.5, 1000 W/m2 irradiance)

- Temperature Coefficient of Isc: 5.1 mA/K (0.10%/°C)
- Temperature Coefficient of Imp: 4.1 mA/K (-0.38%/°C)
- Temperature Coefficient of Voc: -176 mV/K (-0.21%/°C)
- Temperature Coefficient of Vmp: -102 mV/K (0.10%/°C)
- Temperature Coefficient of Pmax: -286 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. Specification subject to change without notice.
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%.

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