



# Certificate of Compliance

**Certificate:** 70131735

**Master Contract:** 266909

**Project:** 80050628

**Date Issued:** 2020-09-29

**Issued To:** Unirac  
1411 Broadway NE  
Albuquerque, New Mexico, 87102  
United States

**Attention:** Klaus Nicolaedis

*The products listed below are eligible to bear the CSA Mark shown with adjacent indicators 'C' and 'US' for Canada and US or with adjacent indicator 'US' for US only or without either indicator for Canada only.*

**Issued by:** *Michael Hoffnagle*  
Michael Hoffnagle



## PRODUCTS

CLASS - C531302 - POWER SUPPLIES - PHOTOVOLTAICS-PV Racking and clamping systems  
CLASS - C531382 - POWER SUPPLIES - PHOTOVOLTAICS-PV Racking and clamping systems -  
Certified to US Standards

**Models:** SM SOLARMOUNT Flush-to-Roof is an extruded aluminum rail PV racking system that is installed parallel to the roof in landscape or portrait orientations.

ULA Unirac Large Array is a ground mount system using the SolarMount (SM) platform for the bonding and grounding of PV modules.



**Certificate:** 70131735  
**Project:** 80050628

**Master Contract:** 266909  
**Date Issued:** 2020-09-29

## Solarmount

The system listed is designed to provide bonding/grounding, and mechanical stability for photovoltaic modules. The system is secured to the roof with the L-Foot components through the roofing material to building structure. Modules are secured to the racking system with stainless steel or aluminum mid clamps and Aluminum end clamps. The modules are bonded to the racking system with the stainless steel bonding mid clamps with piercing points. The system is grounded with 10 AWG copper wire to bonding/grounding lugs. Fire ratings of Class A with Type 1, 2, 3, or 10 for steep slope. Tested at 5" interstitial gap which allows installation at any stand-off height.

The grounding of the system is intended to comply with the latest edition of the National Electrical Code, to include NEC 250 & 690. Local codes compliance is required, in addition to national codes. All grounding/bonding connections are to be torqued in accordance with the Installation Manual and the settings used during the certification testing for the current edition of the project report.

The system may employ optimizers/micro-inverters and used for grounding when installed per installation instructions.

UL 2703 Mechanical Load ratings:

Downward Design Load (lb/ft <sup>2</sup> )	75.2
Upward Design Load (lb/ft <sup>2</sup> )	33.4
Down-Slope Load (lb/ft <sup>2</sup> )	5.0

Test Loads:

Downward Load (lb/ft <sup>2</sup> )	112.8
Upward Load (lb/ft <sup>2</sup> )	50.13
Down-Slope Load (lb/ft <sup>2</sup> )	7.5

## Unirac Large Array

ULA is a ground mount system using the SolarMount (SM) platform for the bonding and grounding of PV modules. ULA aluminum components merge with SM rails and installer-supplied steel pipe. The SM rail system is secured to the horizontal Pipe using the Rail Bracket components. The Rear and Front cap secures the horizontal Pipe to the vertical Pipe. The Front cap is also used to secure the Cross brace. A Slider is attached to the vertical Pipe to secure the Cross brace. The SM rails, caps, slider, rail brackets, and cross braces materials are 6105-T5 aluminum extrusion. Fasteners materials are 304 stainless steel. Horizontal and vertical pipe materials meet the minimum requirements of ASTM A53 for galvanized steel pipe in 2" and 3" diameter.

The mechanical load ratings from the SM test data will be applied to the ULA model.

Fire Testing is not applicable due to being a ground mount system.



**Certificate:** 70131735  
**Project:** 80050628

**Master Contract:** 266909  
**Date Issued:** 2020-09-29

### **Conditions of Acceptability:**

Installation is subject to acceptance of the local inspection authorities having jurisdiction. The certification of these products relates only to the methods of installation, bonding, and grounding as outlined in the Installation Manual for each product.

### **APPLICABLE REQUIREMENTS**

- UL 2703-1st Edition - Mounting Systems, Mounting Devices, Clamping/Retention Devices, and Ground Lugs for Use with Flat-Plate Photovoltaic Modules and Panels.
- LTR AE-001-2012 - List of Technical Requirements for Photovoltaic Module and Panel racking Systems

### **MARKINGS**

The manufacturer is required to apply the following markings:

- Products shall be marked with the markings specified by the particular product standard.
- Products certified for Canada shall have all Caution and Warning markings in both English and French.

Additional bilingual markings not covered by the product standard(s) may be required by the Authorities Having Jurisdiction. It is the responsibility of the manufacturer to provide and apply these additional markings, where applicable, in accordance with the requirements of those authorities.

The products listed are eligible to bear the CSA Mark shown with adjacent indicators 'C' and 'US' for Canada and US (indicating that products have been manufactured to the requirements of both Canadian and U.S. Standards) or with adjacent indicator 'US' for US only or without either indicator for Canada only.

The following markings appear on the rail by adhesive label:

1. Submitter's name and/or CSA Master Contract number "266909";
2. Model designation;
3. Manufacturing date;
4. System fire class rating/designation of information location in Installation Manual;
5. Design load rating/designation of information location in Installation Manual;

The following markings appear on the Mid clamp by stamping:

1. Submitter's name and/or CSA Master Contract number "266909";
2. CSA mark
3. Mil ID for factory location



## Supplement to Certificate of Compliance

Certificate: 70131735

Master Contract: 266909

*The products listed, including the latest revision described below, are eligible to be marked in accordance with the referenced Certificate.*

### Product Certification History

Project	Date	Description
80050628	2020-09-29	Update Report 70131735 to add new end and mid clamp to SM system. Evaluation from project 80044810 TIS report. Electrical and Mechanical testing only.
80038806	2020-04-11	Update Report 70131735 to update PV list with addition of 4 PV module manufacturers. Evaluation only, no testing required.
80030869	2020-01-28	Updated report 70131735 to add PV module manufacturers to approved PV list. Client supplied frame samples. Updated installation instructions PV list. Updated End Clamp torque values, evaluation only, no testing required.
80007667	2019-11-18	Updated report 70131735 to add PV module manufacturers to approved PV list. Client supplied frame samples. Updated installation instructions; PV list, images, added section of current installation of end and mid clamp, evaluation only no testing required. Updated End Clamp Assembly design, evaluation only, no testing required.
70218415	2019-05-15	Updated report 70176825 to add 13 PV module manufacturers to approved PV list. Client supplied frame samples. Updated installation instructions with PV list, no testing required.
000070185553	2018-10-08	Updated report 70131735. Project for evaluation and testing to update report with component additions and adding model numbers to PV list. Updated marking section with correct location of information. Added a model number for mid clamp.  Added modules to the list of modules after reviewing for compatibility and similarity to previously listed modules with similar characteristics. No additional testing is required. Added model ULA and new components to report. No additional testing was required. See 70187190 TIS report for evaluation. Added L Foot, Component number: P28405002. No additional testing is required.



Added splice component, evaluated and tested found to be compliant. See 70183015 TIS report for evaluation.

000070161436      2017-12-06      Updated report 70176825 to add additional modules to the list of modules after reviewing for compatibility and similarity to previously listed modules with similar characteristics. Updated a component number and client updated install manual. No testing was required.

000070131735      2017-09-21      Original transfer project from TUV Rheinland PTL to CSA.

TUV report numbers: 31440029.001, 31440029.002, 31440029.003, 31440029.004, 31440029.005, 31440029.006, CDF31440029.006, R1- URC140731-SM, R1-URC150911