Certificate of Compliance

Certificate:	80130899	**Master Contract:**	302892
Project:	80252507	**Date Issued:**	2025-12-05
Issued to:	**Charge Solar** **120 Ellis Drive** **Barrie, Ontario L4N 9B2** **Canada** **Attention:** Connor Duhaime	**Issued by:**	*Michael Hoffnagle* Michael Hoffnagle

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.

C US

PRODUCTS

Class 5313 02 POWER SUPPLIES - PHOTOVOLTAICS - PV Racking
Class 5313 82 POWER SUPPLIES - PHOTOVOLTAICS - PV Racking and clamping systems-Certified to US Standards

FR Avenue is a racking system for bonding and grounding of photovoltaic modules.

Model(s)
FR Avenue

The system listed is designed to provide bonding/grounding for PV modules mounted on the racking system. The modules are bonded to the racking system with anodization-piercing top-down clamps. Uses a certified grounding device for the grounding system.

Racking system has been evaluated for bonding/grounding, mechanical load ratings, and fire ratings.

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Fire ratings of Class A with Type 1 and 2 for low slope with fixed interstitial gap per design of racking system at five-degree tilt angle.

UL 2703 and TIL Mechanical Load ratings tested on modules with Glass/polymeric constructions. Module area is 27.43 ft^2

Downward Design Load (lb/ft²)	16.8
Upward Design Load (lb/ft²)	16.8
Down-Slope Load (lb/ft²)	5.0

The grounding of the system is intended to comply with the latest edition of the National Electrical Code, to include NEC 250 & 690 or in accordance with CSA C22.1, Safety Standard for Electrical Installations, Canadian Electrical Code, Part I. 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.

TO THE REQUIREMENTS OF TIL No. A-40

FR Ultra is a racking system for bonding and grounding of photovoltaic modules. Talon installation is for rafterless attachment

Model(s)
FR Ultra

The system listed is designed to provide bonding/grounding for PV modules mounted on the racking system. The modules are bonded to the racking system with anodization-piercing top-down clamps. Uses a certified grounding device for grounding system.

Racking system has been evaluated for bonding/grounding and mechanical load ratings. System is not fire rated

UL 2703 and TIL Mechanical Load ratings tested on modules with Glass/polymeric backsheet and with Glass/Glass constructions. Module area for both is 27.50 ft^2

Downward Design Load (lb/ft²)	16.8
Upward Design Load (lb/ft²)	16.8
Down-Slope Load (lb/ft²)	5.0

The grounding of the system is intended to comply with the latest edition of the National Electrical Code, to include NEC 250 & 690 or in accordance with CSA C22.1, Safety Standard for Electrical Installations, Canadian Electrical Code, Part I. 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.

APPLICABLE REQUIREMENTS

CSA TIL NO. A-40 - CSA TIL NO. A-40 - PV Module and Panel Racking Mounting System and Accessories

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ANSI/UL 2703:2015 - First Edition - Including revisions through June 11, 2025 - UL Standard for Safety Mounting Systems, Mounting Devices, Clamping/Retention Devices, and Ground Lugs for Use with Flat-Plate Photovoltaic Modules and Panels

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Notes:

Products certified under Class(es) C531302, C531382 have been certified under CSA's ISO/IEC 17065 accreditation with the Standards Council of Canada (SCC). www.scc.ca

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Supplement to Certificate of Compliance

Certificate: 80130899 **Master Contract:** 302892

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
80252507	2025-12-05	Update report 80130899 to add new black anodized coated rail and modification to rail dimensions. Bonding/Grounding testing only for anodization. Evaluation only for modification to rail dimensions.
80247696	2025-04-17	Update report 80130899 with five-degree tilt angle application and longer spans between rows. Evaluation only.
80208441	2024-07-19	Update Report 80130899 with new module clamp design. Evaluation and testing required. Quote Assumptions: • Assume same rails and clamps used on both systems, only testing one system to apply to both models • Any changes to scope or non-compliances may result in a Change Order
80181430	2024-02-06	Update report 80130899 with new model, Ballast System. Evaluation and testing.
80130899	2022-12-20	Evaluation, Testing, and Certification of PV racking with Extruded aluminum solar racking system for sloped roofs Electrical bonding and Mechanical load only.

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