



# Certificate of Compliance

**Certificate:** 80117684

**Master Contract:** 603885

**Project:** 80117684

**Date Issued:** 2022-03-23

**Issued to:** Universal Solar Americas S.A.  
Calle 49 Bella Vista, NG office center,  
Panama City  
Panama

**Attention:** John Bereckis

*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:** Qiang (Sean) Jiang  
Qiang (Sean) Jiang

## PRODUCTS

CLASS 5311 10 - POWER SUPPLIES - Photovoltaic Modules and Panels

CLASS 5311 90 - POWER SUPPLIES - Photovoltaic Modules and Panels - Certified to U.S. Standards

Photovoltaic modules with Fire class (Canada): Class C, Fire Performance (USA) Type 29, maximum system voltage of 1500 V dc, model series: UNIxxx-144BMH-DG (xxx=430-470, in steps of 5), Fuse rating 20A.

Photovoltaic modules with Fire class (Canada): Class C, Fire Performance (USA) Type 29, maximum system voltage of 1500 V dc, model series: UNIxxx-120BMH-DG (xxx=360-390, in steps of 5), Fuse rating 20A.

Photovoltaic modules with Fire class (Canada): Class C, Fire Performance (USA) Type 29, maximum system voltage of 1500 V dc, model series: UNIxxx-144BMH-DG (xxx=510-580, in steps of 5), Fuse rating 30A.

Photovoltaic modules with Fire class (Canada): Class C, Fire Performance (USA) Type 29, maximum system voltage of 1500 V dc, model series: UNIxxx-132BMH-DG (xxx=475-520, in steps of 5), Fuse rating 30A.

Photovoltaic modules with Fire class (Canada): Class C, Fire Performance (USA) Type 29, maximum system voltage of 1500 V dc, model series: UNIxxx-120BMH-DG (xxx=430-470, in steps of 5), Fuse rating 30A.

Photovoltaic modules with Fire class (Canada): Class C, Fire Performance (USA) Type 29, maximum system voltage of 1500 V dc, model series: UNIxxx-108BMH-DG (xxx=390-410, in steps of 5), Fuse rating 30A.

Photovoltaic modules with Fire class (Canada): Class C, Fire Performance (USA) Type 1 or 2, maximum system voltage of 1000 V dc, model series: UNIxxx-144M(144M-BW/144M-BB) (xxx=425-480, in steps of 5), Fuse rating 20A or maximum system voltage of 1500 V dc, model series: UNIxxx-144MH(144MH-BW) (xxx=425-480 in steps of 5), Fuse rating 20A.



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Photovoltaic modules with Fire class (Canada): Class C, Fire Performance (USA) Type 1, maximum system voltage of 1500 V dc, model series: UNIxxx-144BMH (xxx=425-470 in steps of 5), Fuse rating 20A.

Photovoltaic modules with Fire class (Canada): Class C, Fire Performance (USA) Type 1 or 2, maximum system voltage of 1000 V dc, model series: UNIxxx-144M(144M-BW/144M-BB) (xxx=510-580, in steps of 5), Fuse rating 30A or maximum system voltage of 1500 V dc, model series: UNIxxx-144MH(144MH-BW) (xxx=510-580 in steps of 5), Fuse rating 30A.

Photovoltaic modules with Fire class (Canada): Class C, Fire Performance (USA) Type 1, maximum system voltage of 1500 V dc, model series: UNIxxx-144BMH (xxx=510-580 in steps of 5), Fuse rating 30A.

Photovoltaic modules with Fire class (Canada): Class C, Fire Performance (USA) Type 1, maximum system voltage of 1500 V dc, model series: UNIxxx-132BMH (xxx=475-520 in steps of 5), Fuse rating 30A.

Photovoltaic modules with Fire class (Canada): Class C, Fire Performance (USA) Type 1, maximum system voltage of 1500 V dc, model series: UNIxxx-120BMH (xxx=355-390 in steps of 5), Fuse rating 20A.

Photovoltaic modules with Fire class (Canada): Class C, Fire Performance (USA) Type 1 or 2, maximum system voltage of 1000 V dc, model series: UNIxxx-120M(120M-BW/120M-BB) (xxx=355-400, in steps of 5), Fuse rating 20A or maximum system voltage of 1500 V dc, model series: UNIxxx-120MH(120MH-BW) (xxx=355-400 in steps of 5), Fuse rating 20A.

Photovoltaic modules with Fire class (Canada): Class C, Fire Performance (USA) Type 1 or 2, maximum system voltage of 1000 V dc, model series: UNIxxx-120M(120M-BW/120M-BB) (xxx=430-470, in steps of 5), Fuse rating 30A or maximum system voltage of 1500 V dc, model series: UNIxxx-120MH(120MH-BW) (xxx=430-470 in steps of 5), Fuse rating 30A.

Photovoltaic modules with Fire class (Canada): Class C, Fire Performance (USA) Type 1, maximum system voltage of 1500 V dc, model series: UNIxxx-120BMH (xxx=430-470 in steps of 5), Fuse rating 30A.

Photovoltaic modules with Fire class (Canada): Class C, Fire Performance (USA) Type 1 or 2, maximum system voltage of 1000 V dc, model series: UNIxxx-108M(108M-BW/108M-BB) (xxx=390-410, in steps of 5), Fuse rating 30A or maximum system voltage of 1500 V dc, model series: UNIxxx-108MH(108MH-BW) (xxx=390-410 in steps of 5), Fuse rating 30A.

Photovoltaic modules with Fire class (Canada): Class C, Fire Performance (USA) Type 1, maximum system voltage of 1500 V dc, model series: UNIxxx-108BMH (xxx=390-410 in steps of 5), Fuse rating 30A.

Photovoltaic modules with Fire class (Canada): Class C, Fire Performance (USA) Type 1 or 2, maximum system voltage of 1000 V dc, model series: UNIxxx-156M(156M-BW/156M-BB) (xxx=445-500, in steps of 5), Fuse rating 20A or maximum system voltage of 1500 V dc, model series: UNIxxx-156MH(156MH-BW) (xxx=445-500 in steps of 5), Fuse rating 20A.

Photovoltaic modules with Fire class (Canada): Class C, Fire Performance (USA) Type 1, maximum system voltage of 1500 V dc, model series: UNIxxx-156BMH (xxx=465-500 in steps of 5), Fuse rating 20A.

Notes:

1. The electrical characteristics are within  $\pm 3$  percent of the indicated values of  $I_{sc}$ ,  $V_{oc}$ , and  $P_{max}$  under standard test conditions (irradiance of 100 mW/cm<sup>2</sup>, AM 1.5 spectrum, and a cell temperature of 25°C (77°F)), NOCT: 45°C.
2. The operating ambient temperature of these devices may exceed 40 °C at full load for all wire sizes if it is determined suitable in the field use application.

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### **APPLICABLE REQUIREMENTS**

CSA CAN/CSA-C22.2 NO. 61730-1:11 Photovoltaic (PV) module safety qualification - Part 1: Requirements for construction - First Edition 2011-08; Update No. 1: October 2013.

CSA CAN/CSA-C22.2 NO. 61730-1:11 Photovoltaic (PV) module safety qualification - Part 1: Requirements for construction - First Edition, Amendment 1:2013 to CAN/CSA-C22.2 No. 61730-1:11 October 2013.

CSA CAN/CSA-C22.2 NO. 61730-1:11 Photovoltaic (PV) module safety qualification - Part 1: Requirements for construction - First Edition, Amendment 2:2015 to CAN/CSA-C22.2 No. 61730-1:11 February 2015.

CSA CAN/CSA-C22.2 NO. 61730-2:11 Photovoltaic (PV) module safety qualification - Part 2: Requirements for testing - First Edition 2011-08; Update No. 1: October 2013.

CSA CAN/CSA-C22.2 NO. 61730-2:11 Photovoltaic (PV) module safety qualification - Part 2: Requirements for testing - First Edition, Amendment 1:2013 to CAN/CSA-C22.2 No. 61730-2:11 October 2013.

UL 61730-1 1st: Photovoltaic (PV) Module Safety Qualification – Part 1: Requirements for Construction, 2017-12-04, revision date 2020-04-30.

UL 61730-2 1st: Photovoltaic (PV) Module Safety Qualification – Part 2: Requirements for Testing, 2017-12-04, revision date 2020-04-30.

### **MARKINGS**

Each unit shall bear all the required markings identified in the applicable certification report(s).

### **Notes:**

Products certified under Class C531110 have been certified under CSA's ISO/IEC 17065 accreditation with the Standards Council of Canada (SCC). [www.scc.ca](http://www.scc.ca)

