



# Certificate of Compliance

**Certificate:** 80150682

**Master Contract:** 303403

**Project:** 80150684

**Date Issued:** 2023-06-13

**Issued To:** DualSun SAS  
2 Rue Marc Donadille  
Marseille, Bouches-du-Rhone, 13013  
France

**Attention:** Remi Heutte

*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 5311 10 - POWER SUPPLIES - Photovoltaic Modules and Panels

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

Photovoltaic Modules

- Model DSxxxG1-360SBB5, mono-crystalline silicon, 360 Cell, where xxx is the power output from 370 W to 400 W.



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Model	Rated Max @ STC (Watts)	Voltage at Rated @ Max Power (V)	Current at Rated Max Power @ STC (A)	Open Circuit Voltage @ STC (V)	Short Circuit Current @ STC (A)
	(Pmax)	(Vmp)	(Imp)	(Voc)	(Isc)
DS370G1- 360SBB5	370	40.2	9.20	48.70	9.85
DS375G1- 360SBB5	375	40.40	9.28	48.90	9.89
DS380G1- 360SBB5	380	40.6	9.36	49.10	9.93
DS385G1- 360SBB5	385	40.8	9.44	49.30	9.98
DS390G1- 360SBB5	390	41	9.51	49.50	10.03
DS395G1- 360SBB5	395	41.2	9.59	49.70	10.07
DS400G1- 360SBB5	400	41.4	9.67	49.90	10.12
Max Series Fuse Rating (A)	20				
Max System Voltage (V)	1500				
Fire Performance Rating	Class C (CSA61730:2019) or Type 4 (UL61730:2017)				

- Model DSTIxxxG1-360SBB5, mono-crystalline silicon, 360 Cell, where xxx is the power output from 370 W to 400 W.

Model	Rated Max @ STC (Watts)	Voltage at Rated @ Max Power (V)	Current at Rated Max Power @ STC (A)	Open Circuit Voltage @ STC (V)	Short Circuit Current @ STC (A)
	(Pmax)	(Vmp)	(Imp)	(Voc)	(Isc)
DSTI370G1-360SBB5	370	40.2	9.20	48.70	9.85
DSTI375G1-360SBB5	375	40.40	9.28	48.90	9.89
DSTI380G1-360SBB5	380	40.6	9.36	49.10	9.93
DSTI385G1-360SBB5	385	40.8	9.44	49.30	9.98
DSTI390G1-360SBB5	390	41	9.51	49.50	10.03
DSTI395G1-360SBB5	395	41.2	9.59	49.70	10.07
DSTI400G1-360SBB5	400	41.4	9.67	49.90	10.12
Max Series Fuse Rating (A)	20				
Max System Voltage (V)	1500				
Fire Performance Rating	Class C (CSA61730:2019) or Type 4 (UL61730:2017)				

- Model DSTNxxxG1-360SBB5, mono-crystalline silicon, 360 Cell, where xxx is the power output from 370 W to 400 W.



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Model	Rated Max @ STC (Watts)	Voltage at Rated @ Max Power (V)	Current at Rated Max Power @ STC (A)	Open Circuit Voltage @ STC (V)	Short Circuit Current @ STC (A)
	(Pmax)	(Vmp)	(Imp)	(Voc)	(Isc)
DSTN370G1- 360SBB5	370	40.2	9.20	48.70	9.85
DSTN375G1- 360SBB5	375	40.40	9.28	48.90	9.89
DSTN380G1- 360SBB5	380	40.6	9.36	49.10	9.93
DSTN385G1- 360SBB5	385	40.8	9.44	49.30	9.98
DSTN390G1- 360SBB5	390	41	9.51	49.50	10.03
DSTN395G1- 360SBB5	395	41.2	9.59	49.70	10.07
DSTN400G1- 360SBB5	400	41.4	9.67	49.90	10.12
Max Series Fuse Rating (A)	20				
Max System Voltage (V)	1500				
Fire Performance Rating	Class C (CSA61730:2019) or Type 4 (UL61730:2017)				

- Model DSxxxM12-B320SBB7, mono-crystalline silicon, 320 Cell, where xxx is the power output from 420 W to 440 W.

Model	Rated Max @ STC (Watts)	Voltage at Rated @ Max Power (V)	Current at Rated Max Power @ STC (A)	Open Circuit Voltage @ STC (V)	Short Circuit Current @ STC (A)
	(Pmax)	(Vmp)	(Imp)	(Voc)	(Isc)
DS440M12-B320SBB7	440	36.3	12.13	43.7	12.9
DS435M12-B320SBB7	435	36.2	12.02	43.6	12.79
DS430M12-B320SBB7	430	36.1	11.92	43.5	12.68
DS425M12-B320SBB7	425	36	11.81	43.4	12.56
DS420M12-B320SBB7	420	35.9	11.71	43.3	12.46
Max Series Fuse Rating (A)	25				
Max System Voltage (V)	1500				
Fire Performance Rating	Class C (CSA61730:2019) or Type 4 (UL61730:2017)				

- Model DSTNxxxM12-B320SBB7 , mono-crystalline silicon, 320 Cell, where xxx is the power output from 420 W to 440 W.



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Model	Rated Max @ STC (Watts)	Voltage at Rated @ Max Power (V)	Current at Rated Max Power @ STC (A)	Open Circuit Voltage @ STC (V)	Short Circuit Current @ STC (A)
	(Pmax)	(Vmp)	(Imp)	(Voc)	(Isc)
DSTN440M12-B320SBB7	440	36.3	12.13	43.7	12.9
DSTN435M12-B320SBB7	435	36.2	12.02	43.6	12.79
DSTN430M12-B320SBB7	430	36.1	11.92	43.5	12.68
DSTN425M12-B320SBB7	425	36	11.81	43.4	12.56
DSTN420M12-B320SBB7	420	35.9	11.71	43.3	12.46
Max Series Fuse Rating (A)	25				
Max System Voltage (V)	1500				
Fire Performance Rating	Class C (CSA61730:2019) or Type 4 (UL61730:2017)				

- Model DSTIxxxM12-B320SBB7, mono-crystalline silicon, 320 Cell, where xxx is the power output from 420 W to 440 W.

Model	Rated Max @ STC (Watts)	Voltage at Rated @ Max Power (V)	Current at Rated Max Power @ STC (A)	Open Circuit Voltage @ STC (V)	Short Circuit Current @ STC (A)
	(Pmax)	(Vmp)	(Imp)	(Voc)	(Isc)
DSTI440M12-B320SBB7	440	36.3	12.13	43.7	12.9
DSTI435M12-B320SBB7	435	36.2	12.02	43.6	12.79
DSTI430M12-B320SBB7	430	36.1	11.92	43.5	12.68
DSTI425M12-B320SBB7	425	36	11.81	43.4	12.56
DSTI420M12-B320SBB7	420	35.9	11.71	43.3	12.46
Max Series Fuse Rating (A)	25				
Max System Voltage (V)	1500				
Fire Performance Rating	Class C (CSA61730:2019) or Type 4 (UL61730:2017)				

Design Load: 3600 Pa  
 Test Load: 5400 Pa



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## APPLICABLE REQUIREMENTS

CSA C22.2 No. 61730-1:19 Photovoltaic (PV) module safety qualification — Part 1: Requirements for construction, 2019-12.

CSA C22.2 No. 61730-2:19 Photovoltaic (PV) module safety qualification — Part 2: Requirements for testing, 2019-12.

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

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.

1. The following markings appear on the enclosure by silk-screening, permanent ink stamping, on adhesive labels that appear on the CSA List of Accepted Adhesive Nameplates, or by other permanent method:  
Each PV module shall include the following clear and indelible markings:
  - a) Submitter's name and/or CSA Master Contract number "301973".
  - b) Model designation.
  - c) Complete electrical ratings at STC:
    - Open-circuit voltage (include tolerances)
    - Operating voltage
    - Maximum system voltage
    - Short-circuit current (include tolerances)
    - Current at rated operating voltage
    - Maximum power (include tolerances)
  - d) date and place of manufacture; alternatively serial number assuring traceability of date and place of manufacture;
  - e) PV module classification: Class II, as indicated
  - f) PV module application class: Class A

g) For Class II PV modules, the (IEC 60417-6042: Caution, risk of electric shock) symbol shall be applied,

the caution mark: 

- h) Maximum over-current protection rating.
- i) The CSA Monogram with the “C/US” indicators;

2. All electrical data shall be shown as relative to standard test conditions (STC) (1 000 W/m<sup>2</sup>, (25 ± 2) °C, AM 1.5 according to IEC 60904-3).
3. Polarity of terminals or leads, PV connectors shall be clearly marked indicating the terminal polarity. A module or panel may be identified with one of the following marking statements:
  - “+” and “-” or
  - “POS” and “NEG” or
  - “POSITIVE” and “NEGATIVE”
4. PV connectors or wiring shall be marked in accordance to IEC 62852 with “Do not disconnect under load”. Symbol or warning notice shall be imprinted or labelled close to connector.

The following symbols may be used to show that a PV connector shall not be disconnected under load. See Figures A.1 and A.2.

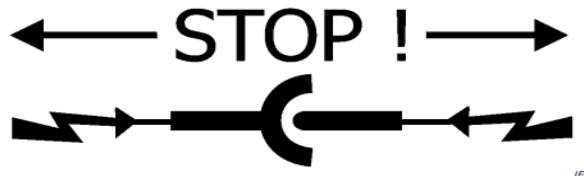


Figure A.1 – Symbol “DO NOT DISCONNECT UNDER LOAD”

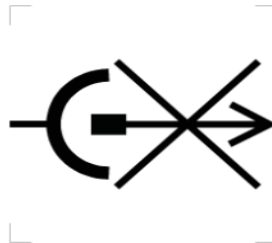



Figure A.2 – Symbol “DO NOT DISCONNECT UNDER LOAD” (IEC 60417-6070)

5. A wiring terminal or bonding location of a PV module intended to accommodate a field installed bonding conductor for equipotential bonding shall be identified with the appropriate symbol IEC 60417-5019 . Each grounding point is identified with ground symbol located adjacent to terminal.
6. PV modules provided with terminals for field wiring rated only for use with copper wire shall be marked, at or adjacent to the terminals, with the statement "Use copper wire only", "Cu only", or the equivalent.
7. PV modules provided with terminals for field wiring rated only for use with a different specific wiring material shall be marked with a similar statement referring to the rated material.



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8. PV modules provided with terminals for field wiring rated for use with all types of wiring material do not need to be marked.
  9. The recommended maximum series/ parallel module configurations shall be applied to either the module or placed into the instruction and installation manual.
  10. A module employing a nonmetallic junction box having a threaded or unthreaded opening shall be marked “for use with nonmetallic conduit systems only” or the equivalent.
  11. A module employing a nonmetallic junction box having threaded or unthreaded opening shall be marked “For use with nonmetallic conduit systems only” or the equivalent.
  12. System Fire Class Rating: See Installation Instructions for Installation Requirements to Achieve a Specified System Fire Class Rating with this Product, this statement should be marked on the label.
  13. Module Fire Performance: Type 4 (UL61730:2017).

Notes:

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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)





## *Supplement to Certificate of Compliance*

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

### **Product Certification History**

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<b>Project</b>	<b>Date</b>	<b>Description</b>
80150684	2023-06-13	Update report 80150684 to add model numbers with new components. Transferring model numbers and test data through CB Scheme. Testing for National Differences.
80150682	2023-01-11	Certification of DualSun PV modules based on data acceptance of IEC test data from CB Scheme. Obtain UL and CSA 61730 certification.