

Certificate of Compliance

Certificate: 2041551

Master Contract: 243512

Project: 2041551

Date Issued: May 14, 2008

Issued to: Solartech Power, Inc.
 13811 Bentley Place
 Cerritos, CA 90703
 USA
Attention: Ms. Sherry Fu

The products listed below are eligible to bear the CSA Mark shown with adjacent indicators 'C' and 'US'



Issued by: Jocelyn Jens
 Technical Assistant



Authorized by: Terry Nagy
 Operations Manager

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 Panels with maximum system voltage of 600 V dc and Class C fire class rating, model series SPMXXXXP, where XXX is the power output from 200W to 240W (220W series), from 165W to 195W (180W series) and from 120W to 140W (130W series), with the following electrical ratings (typical at 220W, 180W and 120W output):

	Rating @ Standard Test Condition (STC)		
	220 W nominal Power	180 W nominal power	120 W nominal power
Operating Voltage	30.2 V dc	24.33 V dc	17.39 V dc
Open Circuit Voltage	36.9 V dc	29.56 V dc	21.6 V dc
Short Circuit Current	7.85 A	7.97 A	7.62 A
Current at Rated Operating Voltage	7.32 A	7.43 A	6.93 A

The 'C' and 'US' indicators adjacent to the CSA Mark signify that the product has been evaluated to the applicable CSA and ANSI/UL Standards, for use in Canada and the U.S., respectively. This 'US' indicator includes products eligible to bear the 'NRTL' indicator. NRTL, i.e. National Recognized Testing Laboratory, is a designation granted by the U.S. Occupational Safety and Health Administration (OSHA) to laboratories which have been recognized to perform certification to U.S. Standards.

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Notes:

1. Rated electrical characteristics are within +/- 10% of measured values at Standard Test Conditions of 100 mW/cm² irradiance, AM 1.5 spectrum, and 25°C.
2. The Photovoltaic Module is intended to be roof mounted on an 18 to 60 degree slope.

APPLICABLE REQUIREMENTS

ULC/ORD - C1703-01 - Flat-Plate Photovoltaic Modules and Panels
UL 1703-3rd Ed - Flat-Plate Photovoltaic Modules and Panels

MARKINGS

The following markings appear on the panel by silk-screening, permanent ink stamping, on adhesive labels that appear on the CSA List of Accepted Adhesive Nameplates, or by other permanent method:

1. Submitter's name and/or CSA File Number "243512".
2. Model designation.
3. Complete electrical ratings (as per product description above), actual measured values are marked on each panel.
4. Date code or date-traceable serial number.
5. The product may bear one of the following CSA markings: CSA, or CSAus, or cCSAus.
6. The output power wiring leads, connector, or other connection means of a module or panel shall be identified with one of the following marking statements:
"+" and "-" or
"POS" and "NEG" or
"POSITIVE" and "NEGATIVE"
7. The following marking is provided near the points where field connections will be made, and located so that it will be readily visible during installation: "For field connections, use No. 12 AWG wires insulated for a minimum of 90°C".
8. The module is marked, at or adjacent to the output terminals, with the statement "Use copper wire only", "CU only", or the equivalent.
9. The type, voltage rating, current rating, and configuration of the biasing diode is identified in the installation instructions.
10. The panel is marked relative to the maximum electrical rating of an acceptable series fuse (for protection against backfeed): Type 15 A fast blo, Voltage rating matching the maximum installed system voltage determined by system design (100-600 V dc).
11. The fire rating.

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12. Installation and Assembly Instructions:

The panel is supplied with installation instructions describing the methods of electrical and mechanical installation and the electrical ratings of the panel. When the fire rating is dependent on a specific mounting structure, specific spacings, or specific means of attachment to the roof or structure, details of the specific parameter or parameters shall be included in the instructions.

- (a) The electrical installation instructions include a detailed description of the wiring method to be used in accordance with the National Electrical Code. This description includes:
 - i) The size, type, and temperature rating of the conductors to be used,
 - ii) The type of overcurrent protection to be used,
 - iii) The minimum and maximum cable diameters when the wiring method is cable.

- (b) The mechanical installation instructions for roof mounting include:
 - i) A statement indicating the minimum mechanical means to be used for securement of the module or panel to the roof,
 - ii) A statement that the assembly is to be mounted over a fire resistant roof covering rated for the application, and
 - iii) Indication of any slope less than 5 in/ft (127 mm/305 mm) required to maintain a fire Class rating.

- (c) The electrical ratings include following statement or the equivalent: "The electrical characteristics are within ± 10 percent of the indicated values of ISC, VOC, and Pmax under standard test conditions (irradiance of 100 mW/cm², AM 1.5 spectrum, and a cell temperature of 25°C (77°F))."
 - Exception: The tolerance may be either smaller than ± 10 percent or omitted, provided the values measured during the production line tests are:
 - i) Within a tolerance indicated in the instructions when a smaller tolerance is indicated, or
 - ii) The same as the values indicated in the instructions when the tolerance is omitted.

- (d) The installation instructions include a statement advising that artificially concentrated sunlight shall not be directed on the module or panel.

- (e) "Under normal conditions, a photovoltaic module is likely to experience conditions that produce more current and/or voltage than reported at standard test conditions. Accordingly, the values of ISC and VOC marked on this module should be multiplied by a factor of 1.25 when determining component voltage ratings, conductor ampacities, fuse sizes, and size of controls connected to the PV output. Refer to Section 690-8 of the National Electrical Code for an additional multiplying factor of 125 percent (80 percent derating) which may be applicable."



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

Project	Date	Description
2041551	May 14, 2008	Multiple Listing for Ligitek / Solartech, Model LM / SPM Series (Alt. File No. 243512, Form B)

Multiple Listing Project No	Listee Models	Submittor Models	Submittor Project No.
2041551	SPM120P SPM125P SPM130P SPM165P SPM170P SPM175P SPM180P SPM200P SPM205P SPM210P SPM215P SPM220P SPM225P SPM230P	LM120BB00 LM125BB00 LM130BB00 LM165BB00 LM170BB00 LM175BB00 LM180BB00 LM200BB00 LM205BB00 LM210BB00 LM215BB00 LM220BB00 LM225BB00 LM230BB00	1896281