Certificate of Compliance

Certificate: 70043751 **Master Contract:** 264914

Project: 70046619 **Date Issued:** 2015-09-11

Issued to: **Coastal Plains Power & Battery, LLC**
1 Airport Road
Kenedy, Texas 78119
USA
Attention: Marc Fumuso

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

Issued by: *Byron Bargas*
Byron Bargas

PRODUCTS
CLASS - C531110 - POWER SUPPLIES-Photovoltaic Modules and Panels
CLASS - C531190 - POWER SUPPLIES-Photovoltaic Modules and Panels - Certified to US Standards

For details related to rating, size, configuration, etc. reference should be made to the CSA Certification Record or the descriptive report.

CLASS - C531110 - POWER SUPPLIES-Photovoltaic Modules and Panels
CLASS - C531190 - POWER SUPPLIES-Photovoltaic Modules and Panels - Certified to US Standards

Photovoltaic Modules with maximum system voltage of 30 V dc with no Fire Class performance, Model Series:

IDC-XXXW (where XXX is the power output from 135 W to 160 W, at a 5 W step), Poly- Crystalline cell type technology.

Electrical Ratings:

Model series IDC-XXXW (where XXX is the power output from 135 W to 160 W)

Model	Max. Power Pmax (W)	Voltage at Max. Power Vmax (V)	Current at Max. Power Imax (A)	Open Circuit Voltage Voc (V)	Short Circuit Current Isc (A)
IDC-135W	135	17.85	7.56	22.00	8.35
IDC-140W	140	18.01	7.77	22.23	8.45
IDC-145W	145	18.17	7.98	22.47	8.54
IDC-150W	150	18.33	8.19	22.70	8.64
IDC-155W	155	18.70	8.30	22.93	8.74
IDC-160W	160	19.01	8.40	23.16	8.83

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 cell temperature of 25 ºC.

CLASS 9098 01 - MISCELLANEOUS - For Hazardous Locations
CLASS 9098 81 - MISCELLANEOUS - For Hazardous Locations - Certified to US Standards

Class I, Division 2; Groups B, C, and D; T4

Photovoltaic Modules with maximum system voltage of 30 V dc with no Fire Class performance, Model Series:

IDC-XXXW (where XXX is the power output from 135 W to 160 W, at a 5 W step), Poly- Crystalline cell type technology.

Electrical Ratings:

Model series IDC-XXXW (where XXX is the power output from 135 W to 160 W)

Model	Max. Power Pmax (W)	Voltage at Max. Power Vmax (V)	Current at Max. Power Imax (A)	Open Circuit Voltage Voc (V)	Short Circuit Current Isc (A)
IDC-135W	135	17.85	7.56	22.00	8.35
IDC-140W	140	18.01	7.77	22.23	8.45
IDC-145W	145	18.17	7.98	22.47	8.54
IDC-150W	150	18.33	8.19	22.70	8.64
IDC-155W	155	18.70	8.30	22.93	8.74

Model	Max. Power Pmax (W)	Voltage at Max. Power Vmax (V)	Current at Max. Power Imax (A)	Open Circuit Voltage Voc (V)	Short Circuit Current Isc (A)
IDC-160W	160	19.01	8.40	23.16	8.83

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 cell temperature of 25 ºC.

Condition of Acceptability:

Wiring to and from this model must be acceptable to the local AHJ.

APPLICABLE REQUIREMENTS

ULC/ORD- C1703-01	Flat-Plate Photovoltaic Modules and Panels
CSA-C22.2 No. 213-M1987	Non-incendive Electrical Equipment for Use in Class I, Division 2 Hazardous Locations
UL 1703-3rd Edition	Flat-Plate Photovoltaic Modules and Panels
ANSI/ISA-12.12.01-2013	Non-incendive Electrical Equipment for Use in Class I and II, Division 2 and Class III, Division 1 and 2 Hazardous (Classified) Locations

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.

Nameplate adhesive label material approval information:

Pressure-sensitive labels of the permanent type that are secured by adhesive shall be CSA/UL approved labels that complies with CSA C22.2 No. 0.15 or UL 969 and suitable for the mounting surface, temperature, and environment.

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:

1. Submittor's name and/or CSA Master Contract number "264914" adjacent to the CSA Mark in lieu of manufacturer's name.;

2. Model designation;

3. Complete electrical ratings (as per product description above);

4. Date code or date-traceable serial number;

5. The products listed 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;

6. Hazardous location designation, as specified in the PRODUCTS section, above (may be abbreviated as "CL. I, DIV. 2, GRP. B, C, D", or similar).

7. Optional Hazardous location designation Class I Zone 2 IIB+H2 T4 (may be abbreviated as Cl I Zn 2 IIB+H2 T4)

8. Temperature code: As specified in the PRODUCTS section, above.

9. The output power wiring leads, connector, or other connection means of a module or panel are identified with one of the following marking statements: "+" and "−" or "POS" and "NEG" or "POSITIVE" and "NEGATIVE";

10. The following words:
    a. "WARNING - EXPLOSION HAZARD - Substitution of components may impair suitability for Class I, Division 2."
    b. "AVERTISSEMENT - RISQUE D'EXPLOSION - La substitution de composants peut rendre ce matériel inacceptable pour les emplacements de Classe I, Division 2."
    c. "WARNING - EXPLOSION HAZARD - Do not connect or disconnect while circuit is live unless area is known to be nonhazardous."
    d. "AVERTISSEMENT - RISQUE D'EXPLOSION - Ne pas brancher ou débrancher tant que le circuit est sous tension, à moins qu'il ne s'agisse d'un emplacement non dangereux."

11. 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 upon a specific mounting structure, specific spacings, or specific means of attachment to the roof or structure, details of the specific parameter or parameters are 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.

(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/cm^2, 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."

(f) The following words, or suitable equivalent:
i) This equipment is suitable for installation in Class I, Division 2, Group B, C, D hazardous locations or nonhazardous locations only.
ii) WARNING - Explosion Hazard. Do not connect or disconnect this equipment unless power has been removed or the area is known to be nonhazardous.
iii) WARNING - Explosion Hazard. Substitution of components may impair suitability for Class I, Division 2.

Supplement to Certificate of Compliance

Certificate: 70043751 **Master Contract:** 264914

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
70046619	2015-09-11	Correct Electrical Rating table - open and closed circuit columns
70044534	2015-09-08	Update to Report 70043751 to include hazloc certification to Class I Div 2.