



Certificate of Compliance

Certificate: 70025616 (LR 86)

Master Contract: 262866

Project: 70199170

Date Issued: 2018-09-30

Issued to: Changshu Friends Connector Technology Co., Ltd.
No.2, Zhongtian Road
Changshu, Jiangsu 215500
CHINA
Attention: Yifeng Wang

The products listed below 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 US Standards) 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 - C531110 - POWER SUPPLIES-Photovoltaic Modules and Panels

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

PV Junction Box, suitable for outdoor use with respect to exposure to Ultraviolet Light, Water Exposure and immersion.

Model CF1108-03, rated 600V dc, 15A;

Model CF1108-03a, rated 600V dc, 15A;

Model CF1108-03b, rated 1000V dc, 15A;

Model CF1108-03f, rated 1000V dc, 15A;

Model CF1108-05, rated 600V dc, 11A;

Model CF1108-03gb, rated 1500 or 1000 or 600V dc, 15A;

Model CF1505-01xe, rated 1500Vdc or 1000Vdc or 600Vdc, 15A, Triad type.

Model CF1505-02xe, rated 1500Vdc or 1000Vdc or 600Vdc, 15A, Triad type.

Model CF1601-01, rated 1500 or 1000Vdc, 15A

Model CF1601-01-F, rated 1500 or 1000Vdc, 15A,

Model CF1505-01xe, rated 1500 or 1000 Vdc, 15A, Triad type.

Model CF1505-01xe 002, rated 1500 or 1000 Vdc, 15A, Triad type



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Model CF1505-01xe 003, rated 1500 or 1000 Vdc, 15A, Triad type
Model CF1505-01xe 004, rated 1500 or 1000 Vdc, 15A, Triad type
Model CF1505-01xe 005, rated 1500 or 1000 Vdc, 15A, Triad type
Model CF1505-01xe 006, rated 1500 or 1000 Vdc, 15A, Triad type
Model CF1505-01xe 007, rated 1500 or 1000 Vdc, 15A, Triad type
Model CF1505-01mx, rated 1500 or 1000 Vdc, 15A, Triad type
Model CF1208-01&02, rated 1500 or 1000 Vdc, 15A, Double type.
Model CF1208-02a, rated 1500 or 1000 Vdc, 15A
Model CFSB-1606, rated 1500 Vdc, 15A

Note:

1. All models are certified as potted using, the junction box were evaluated with the potting materials, detail information shows in description report.
2. For All models, the cable and connectors are optional components, but if used with junction box or any change of the cable and connectors, they shall be evaluated by CSA international first, details information shows in description report.
3. The voltage rating is based on cable voltage rating. For 600V dc cable the maximum voltage rating for junction box is 600V, for 1000V dc cable the maximum voltage rating for junction box is 1000Vdc or 600V, for 1500V dc cable the maximum voltage rating for junction box is 1500Vdc or 1000Vdc or 600V.
4. The Rapid shutdown equipment function was evaluated on model CFSB-1606, detail information shows in the PVRSS evaluation report.

APPLICABLE REQUIREMENTS

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



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
70199170	2018-09-30	Update report 70025616 to add new CF1505-01xe 006 and CF1505-01xe 007 series, add the new diode (FRD2045) for CF1505-01xe series, multiple list the diode manufacturer name as Changshu Friends Connector Technology Co., Ltd. type “FRD3045” for “GF3045MG and SB3045DY” and add for CF1505-01xe and CF1108-03gb series, add CF1208-02a series.
70144053	2018-09-07	Update report 70025616 to add a new model CF1606-06.
70188466	2018-07-11	Update report to add new CF1505-01xe 004 and CF1505-01xe 005 series.
70143375	2017-11-29	Update report 70025616 to add a new double type model.
70135261	2017-08-28	Update report 70025616 to add new base material and new housing material for CF1108-03gb series, combined CF1108-03g, CF1108-03gb, CF1108-03ge as CF1108-03gb series; add two new housing materials, new housing design, new PV cable for CF1601-01 series, add new CF1601-01-F series; add new housing material, new base material, four new connectors, new potting material, new diode, new PV cable for CF1505-01xe series, add new CF1505-01xe 002 and CF1505-01xe 003 series.
70125547	2017-06-02	Update report 70025616 to add two new cable and a new diode for CF1108-03g & CF1108-03gb series.
70086282 70095485	2016-10-18	Update report 70025616 to add a new junction box CF1505-01xb & CF1505-01xe, change the model name from CF1505-01x to CF1505-01mx, add a new Thailand factory.
70091478	2016-09-04	Update report 70025616 to increase the rating to 15A for junction box CF1108-03, CF1108-03b, CF1108-03g, CF1108-03gb and CF1108-03ge, alternate one diode for model CF1108-03, two diodes for model CF1108-03g.
70070203	2016-08-26	Update report 70025616 to add a new junction box CF1601-01b & CF1601-01e.
70082183	2016-06-01	Alternate a new PV locking connectors, Model T4, consisting of male and female connectors, rated 1500 V dc/30 A for junction box Model CF1108-03g, rated 600V dc, 11A & Model CF1108-03gb, rated 1500V dc, 11A
70044327	2016-02-29	One type improving rated voltage and one new type full certification.
70033843	2015-12-26	Update report to including new potting materials.
70025616	2015-03-27	PV Junction Box