

## UNDERWRITERS LABORATORIES INC. CERTIFICATION REQUIREMENT DECISION

This Certification Requirement Decision is prepared by UL LLC. It is normative for the applicable UL Product Certification Program(s); however, it is currently not part of the UL Standard(s) referenced below.

**Product Category (CCN): QIJQ, QIFA**

**Standard Number: UL 6703**

**Standard Title: Standard for Connectors for Use in Photovoltaic Systems**

**Edition Date: August 28, 2014**

**Edition Number: 1**

**Section / Paragraph Reference: 3 Glossary, 9 Field assembly test, and 12.3.2 Field assembly procedure**

**Subject: Add additional requirements for field assembled PV connectors**

### DECISION:

#### 3 Glossary

3.x FACTORY ASSEMBLED CONNECTOR – A connector that is intended to be assembled and terminated to the cable under controlled conditions at a manufacturer's location.

3.y FIELD ASSEMBLED CONNECTOR – A connector that is intended to be assembled and terminated to the cable in the field.

#### 8A Field Assembled Connectors

8A.1 For field assembled connectors, the manufacturer shall provide all connector components, and any special or nonstandard tools if required for installation of the connector to the cable in the field. Field Assembled connectors shall also be provided with assembly instructions in accordance with Section 12.

### PERFORMANCE

#### 9 PV Connector Tests

##### 9.4 Field assembly test

9.4.1 Samples of field assembled connectors shall be subjected to an installation test. The assembly shall be performed with the connector components and any special or nonstandard tools as provided by the manufacturer. The installation shall be performed precisely according to the manufacturer's assembly instructions.

9.4.2 All tests required by this standard shall be conducted on samples assembled based on 9.4.1.

#### 12 Assembly Instructions

12.3.2 If the PV connector is intended to be field assembled and terminated to the cable in the field, additional procedures shall be provided as follows:

a) Torques, including any tightening torque for sealing and strain relief means. If different torque values are required for different temperatures, an equation or a table for this adjustment shall be provided;

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- b) Suitable temperature range for field assembly;
- c) Application of adhesive or sealant, if it is provided as part of the connector;
- d) A statement that "All components shall be conditioned to the same temperature prior to the assembly", or equivalent; and
- e) A statement requiring special precautions if assembly occurs in abnormal environmental conditions, such as in rain or snow, extremely hot or cold ambient, or in an area where there is excessive dust.

#### **RATIONALE FOR DECISION:**

UL 6703 was developed with a focus on PV connectors which are assembled onto cables in the factory. This Certification Requirement Decision (CRD) addresses field assembly of PV connectors onto cables to support correct installation procedures for PV installers and facilitate acceptance by Authorities Having Jurisdiction.

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