TO: Subscribers to UL’s Standards for Distributed Generation Power Systems – Accessory Equipment – Photovoltaic System Connectors

Subscribers to UL’s Standards Service for Distributed Generation Power Systems – Connectors for Use in Photovoltaic Systems

SUBJECT: Transfer of Photovoltaic Connectors from the Category for “Distributed Generation Power Systems Accessory Equipment” (QIIO2) to the Category for “Connectors for Use in Photovoltaic Systems” (QIJQ2)

UL issued the Outline of Investigation for Connectors for Use in Photovoltaic Systems on March 25, 2010. These requirements reflected the certification requirements used by UL for Component Recognition of Photovoltaic System Connectors under QIIO2. In conjunction with the publication of this Outline, UL has created a new category for “Connectors for Use in Photovoltaic Systems” (QIJQ2). In response to the establishment of this new category, UL will be transferring connectors for use in photovoltaic systems from QIIO2 into QIJQ2. This transfer will be completed by the end of 2010. The new category (QIJQ2) will be unique to PV Connectors whereas the accessory category (QIIO2) will continue to include certifications for other accessories intended for use with photovoltaic systems.

In order to make this transfer as transparent as possible to existing subscribers, UL will process these revisions at no cost to subscribers. In addition, these changes will be processed without any further input from subscribers. All transfers will occur over the next few months and will be completed prior to December 31, 2010.

For files that only contain Photovoltaic System Connectors, the required changes will consist of changing the category name in the respective Reports and the Listing Information Pages. The file number will remain the same.

For files that contain other photovoltaic accessories, a new file number will be established for the PV Connector. PV connectors will be relocated to the new file and new Listing Information Pages will be generated under “QIJQ2”. The creation of a new file may result in increased Annual Maintenance Fees.

A copy of the Guide Information for QIJQ2 is attached.

Any technical questions concerning the above can be directed to Mr. Jake Killinger via phone (847) 664-2018, or e-mail jacob.killinger@us.ul.com. All other questions should be directed to UL’s customer service via phone (877) 854-3577, or email cec.us@us.ul.com.

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Attachment – Guide Information for Connectors for Use in Photovoltaic Systems (QIJQ2)
[Distributed Generation Power Systems Equipment - Component] Connectors for Use in Photovoltaic Systems - Component

See General Information for Distributed Generation Power Systems Equipment - Component

April 16, 2010

The devices covered under this category are incomplete in certain constructional features or restricted in performance capabilities and are intended for use as components of complete equipment submitted for investigation rather than for direct separate installation in the field. THE FINAL ACCEPTANCE OF THE COMPONENT IS DEPENDENT UPON ITS INSTALLATION AND USE IN COMPLETE EQUIPMENT SUBMITTED TO UNDERWRITERS LABORATORIES INC.

GENERAL

This category covers latching or locking photovoltaic (PV) connectors rated 1,000 V dc or less. These connectors are intended for use in wiring methods detailed in Part IV of Article 690 of ANSI/NFPA 70, "National Electrical Code." The preferred ratings are 600 and 1,000 V dc. These connectors are intended to be used for interconnection of PV modules and panels. These types of connectors are not intended to connect downstream-system components.

PV connectors are suitable for the termination of single, insulated, stranded copper USE-2 or PV wire rated 90°C, 105°C, 125°C or 150°C dry; 90°C wet; 600, 1,000 or 2,000 V.

PRODUCT MARKINGS

PV connectors are marked with:

1. The manufacturer's name or trademark (or both)
2. The current rating (may be provided on smallest unit container)
3. The voltage rating (may be provided on smallest unit container)
4. The statement "Do Not Disconnect Under Load"

Installation instructions or an information sheet supplied with the PV connector provide the required installation information, such as the wire insulation diameter, number of conductor
strands, wire size or range, copper wire only, specific tooling to be used or tightening torque, number of crimping operations, conductor strip length, and any preliminary preparation of conductor ends.

**CONDITIONS OF ACCEPTABILITY**
Consideration is to be given to the Conditions of Acceptability specified in the individual Recognitions and/or Reports (available from the manufacturer) when these components are employed in the end-use equipment.

**RELATED PRODUCTS**
PV modules and panels are covered under Photovoltaic Modules and Panels (QIGU).
PV modules and panels intended for use in hazardous (classified) locations are covered under Photovoltaic Modules and Panels for Use in Hazardous Locations (FCIU).
PV modules and panels that are (1) intended to serve as the roof, or as a majority component of the roofing system of a building, (2) intended to serve as part of a structural component of a building, such as a curtain-wall, facade, atrium, skylight, etc., or (3) intended to serve as part of a nonstructural component of a building, such as a curtain-wall, facade, atrium, skylight, etc., which is applied extant to the primary building structure, are covered under Building-integrated Photovoltaic Modules and Panels (QHZK).
Mounting systems for building-integrated PV panels are covered under Building-integrated Photovoltaic Mounting Systems (QHZQ).
Permanently-connected PV charge controllers that control the state of charge of storage batteries used in PV power systems are covered under Photovoltaic Charge Controllers (QIBP).
Products that use lenses and reflectors to concentrate sunlight on PV cells to increase output power are covered under Concentrator Photovoltaic Modules and Assemblies (QICP).
Remanufactured flat-plate PV modules and panels intended for mounting on buildings or on ground-supported frames are covered under Photovoltaic Modules and Panels, Remanufactured (QIGZ).
Inverters intended for use in PV systems are covered under Static Inverters and Converters for Use in Independent Power Systems (QIKH).
Wire intended for use in PV systems is covered under Photovoltaic Wire (ZKLA).

**REQUIREMENTS**
The basic requirements used to investigate products in this category are contained in UL Subject 6703, "Outline of Investigation for Connectors for Use in Photovoltaic Systems."

**UL MARKING**
Components Recognized under UL's Component Recognition Program are identified by markings consisting of the Recognized company's identification and catalog, model or other product designation on the device or carton. In addition, components produced under the UL Component Recognition Program will also bear the Recognized Component Mark.
The Listing or Classification Mark of Underwriters Laboratories Inc. is not authorized for use on, or in connection with, Recognized Components. Only those components that actually bear the "Marking" should be considered as being covered under the Component Recognition Program.

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