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SUBJECT 6703A

OUTLINE OF INVESTIGATION

FOR

MULTI-POLE CONNECTORS FOR USE IN PHOTOVOLTAIC SYSTEMS

Issue Number: 1

OCTOBER 7, 2010

Summary of Topics

This is the first issue of the Outline of Investigation for Multi-Pole Connectors for Use in Photovoltaic Systems, Subject 6703A.

The UL Foreword is no longer located within the UL Outline of Investigation. For information concerning the use and application of the requirements contained in this Outline of Investigation, the current version of the UL Foreword is located on ULStandardsInfoNet at: <http://ulstandardsinfo.net/ulforeword.html>

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INTRODUCTION

1 Scope

1.1 This Outline covers latching or locking type multi-pole PV connectors rated 1000 Vac or dc or less. These connectors are intended for use in wiring methods detailed in Part IV of Article 690 - Solar Photovoltaic Systems of the National Electrical Code, NFPA 70.

1.2 Multi-pole PV connectors may consist of connectors, panel mounted connectors, distribution blocks and splitter connectors for the purpose of facilitating connections to and from inverters and like devices in a PV system.

1.3 Multi-pole PV connectors are suitable for the termination of insulated, stranded copper type TC-ER, USE-2 or Photovoltaic Wire (PV Wire) rated 90°C, 105°C, 125°C, or 150°C dry; 90°C wet; 600, 1000, or 2000 V.

1.4 This standard does not apply to:

- a) Single polarity dc connectors covered by the Outline in Investigation for Connectors for Use in Photovoltaic Systems, Subject 6703, and
- b) PV wiring harnesses or cable assemblies consisting of connectors (single or multi-pole) assembled onto cables.

2 General

2.1 Units of measurement

2.1.1 The requirements in this outline are stated in metric units that make the requirement conveniently useable in countries employing the various metric systems (practical SI and customary). In addition to being stated in metric units, the inch/pound units, that are customary in the USA, are also provided. The values given in SI (metric) units shall be normative, except for AWG conductor sizes. Any other values given are for information purposes only.

2.1.2 Equivalent - although, not necessarily exactly identical - results are to be expected from applying a requirement in USA or metric terms. Equipment calibrated in metric units is to be used when a requirement is applied in metric terms.