STANDARDS UPDATE NOTICE (SUN)
ISSUED: May 22, 2024

STANDARD INFORMATION

Standard: UL 1741
Standard ID: Inverters, Converters, Controllers and Interconnection System Equipment for Use with Distributed Energy Resources [UL 1741:2021 Ed.3+R:19May2023]
Previous Standard ID: Inverters, Converters, Controllers and Interconnection System Equipment for Use with Distributed Energy Resources [UL 1741:2021 Ed.3+R:18Oct2022]

EFFECTIVE DATE OF NEW/REVISED REQUIREMENTS

Effective Date: **September 28, 2026**

IMPACT, OVERVIEW, AND ACTION REQUIRED

Impact Statement: Per our accreditation, Intertek is required to review reports against the standard revisions to confirm compliance. Once compliance is confirmed, the standard reference in the report is updated to show continued compliance to the technical requirements of the standard. Reports not updated to this version by the effective date above will be withdrawn.

Overview of Changes: Addition of requirements Arc-Fault Circuit Protection. Specific details of new/revised requirements are found in table below.

Current Listings Not Active? – Please immediately identify any current Listing Reports or products that are no longer active and should be removed from our records. We will do this at no charge as long as Intertek is notified in writing prior to the review of your reports.

STANDARD INFORMATION

CLAUSE	VERDICT	COMMENT
		Additions to existing requirements are <u>underlined</u> and deletions are shown ~~lined out~~ below.
34A		***New section added;*** **PV DC Arc-Fault Protection**
34A.1		Equipment that includes PV DC arc-fault protection functionality shall comply with the applicable portions of the Standard for Photovoltaic (PV) DC Arc-Fault Circuit Protection, UL 1699B. PVRSS, PVRSE, PVIE and other electronics that are connected within PV array strings, shall be present in a normal operating condition during evaluation according to applicable UL 1699B requirements and tests including, but not limited to, those defined for PV AFCI for use with PV DC to DC converters.
34A.2		Equipment and systems such as, but not limited to, PVRSE, PVRSS, and PVIE that have components such as, but not limited to, power supplies and capacitors integrated or connected to PV system dc circuits, which are required to have PV DC arc-fault protection shall be evaluated and shall not interfere with the PV DC arc-fault protection functionality. Interference includes filtering, masking, and attenuation of arc signals. Note: Switching noise and input filter capacitance from such equipment and systems integrated or connected to PV system dc circuits can interfere with the PV DC arc-fault protection functionality. Electromagnetic compatibility testing is outside the scope of this standard. However, manufacturers should ensure that such equipment and systems will not interfere with the PV DC arc-fault protection functionality. Both of the following should be considered: a) Evaluate the conducted emissions from such equipment and systems back to PV system dc circuits using the test procedures in CISPR 11:2015 for dc ports from 9kHz to 150kHz. Since CISPR 11 does not have limits for this frequency range, evaluate the PV system dc circuits with and without such equipment and systems to determine noise their contribution. This noise contribution, especially broadband noise and switching noise, should not interfere with the PV DC arc-fault protection functionality. The test procedures and noise levels are part of a proposal, which is still being worked on and will be proposed in the future. b) Evaluate the suitability of the input impedance of such equipment and systems using the applicable sections of the Standard for Photovoltaic (PV) DC Arc-Fault Circuit Protection, UL 1699B, to verify that the input filter design does not interfere with the PV DC arc-fault protection functionality.

CLAUSE	VERDICT	COMMENT
93	Info	**Protection of Emergency Personnel**
93.18		***New clause added;*** PVRSS, PVRSE or PVIE that also includes AFCI shall be evaluated to PV DC arc-fault protection functionality in accordance with Section 34A.
94	Info	**Electrical Isolation Systems (EIS)**
94.1		PVRSE that uses contactors or relays for isolation of controlled conductors shall contain electrical or electronic arc suppression devices on any contacts to minimize the radiated and conducted radio frequency (RF) signature of arcs created when those contacts ~~open~~ switch and shall be evaluated to not interfere with the PV DC arc-fault protection functionality in accordance with Section 34A. Exception: For those systems w~~ith both dc PV AFCI and PVRSS functions~~ that combine PVRSS/PVRSE and PVIE functionality and PV DC arc-fault protection functionality in a single product piece of equipment, the requirement to supply arc suppression devices shall be waived when the PVRSS/PVRSE function is tested with the ~~dc AFCI~~ PV DC arc-fault protection functionality enabled. The criteria shall be that the ~~dc AFCI~~ PV DC arc-fault protection functionality does not trip.