

**STANDARD INFORMATION - UL 48:2011 ED.15+R:07DEC2018**

**Standard Number:** UL 48  
**Standard Name:** Electric Signs  
**Standard Edition and Issue Date:** 15<sup>th</sup> Edition Dated September 2, 2011  
**Date of Revision:** December 7, 2018  
**Date of Previous Revision of Standard:** November 10, 2017

**EFFECTIVE DATE OF NEW/REVISED REQUIREMENTS**

**Effective Date:** **March 2, 2020**

**IMPACT, OVERVIEW, AND ACTION REQUIRED**

**Impact Statement:** A review of all Listing Reports is necessary to determine which products comply with new/revised requirements and which products will require re-evaluation. **NOTE:** Effective immediately, this revised standard will be exclusively used for evaluation of new products unless the Applicant requests in writing that current requirements be used along with their understanding that their listings will be withdrawn on Effective Date noted above, unless the product is found to comply with new/revised requirements.

**Clients in Sign General Coverage Program:** These new requirements will be updated in your Listing reports and will be included in the next training provided to maintain your General Coverage Sign Listing. This notice is to give you advance notice of the changes that will be occurring.

**Overview of Changes:**

- Minimum AWG size, Selection and Installation of Class 2 Secondary Wiring
- Sign Receptacles Provided for Auxiliary Functions
- Standards and Requirements for Components used in PV Signs

Specific details of new/revised requirements are found in table below.

**If the applicable requirements noted in the table are not described in your report(s), these requirements will need to be confirmed as met and added to your report(s) such as markings, instructions, test results, etc. (as required).**

**Client Action Required:**

**Information** – To assist our Engineer with review of your Listing Reports, please submit technical information in response to the new/revised paragraphs noted in the attached or explain why these new/revised requirements do not apply to your product (s).



**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 – Please immediately identify any current Listing Reports or products that are no longer active and should be removed from our records.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
		<p>Additions to existing requirements are <u>underlined</u> and deletions are shown <del>lined out</del> below.</p>
4	Info	<b>Construction</b>
4.2	Info	<b>Electrical</b>
4.2.5	Info	<b>Wiring</b>
4.2.5.2	Info	<b>Supply connections</b>
4.2.5.2.2	Info	<b>Field-wiring terminals</b>
		<b><i>New clause added;</i></b>
4.2.5.2.2.4		A terminal intended for connection of secondary wiring external to the sign body or electrical enclosure shall be suitably rated for the connection of 18 AWG or larger conductors.
4.2.5.5	Info	<b>Secondary Circuits (0 – 1000 V)</b>
4.2.5.5.1	Info	<b>General</b>
		<b><i>New clause added;</i></b>
4.2.5.5.1.11A		Class 2 circuit wiring shall be rated for the environment in which it is to be used, sized for the load imposed, and except as noted in 4.2.5.5.1.11B, not smaller than 18 AWG. See also, Field Wiring terminal, 4.2.5.2.2.4.
		<b><i>New clause added;</i></b>
4.2.5.5.1.11B		A minimum of 22 AWG is permitted for Class 2 circuit wiring that are contained within the sign enclosure or sign body and not intended for connection to field wiring.
		<b><i>New clause added;</i></b>
		Power-limited circuit cable shall be installed in accordance with the following:
4.2.5.5.1.11C		a) All exposed cables shall be mechanically supported at the maximum interval specified in Table 4.5 and in accordance with 4.2.5.5.3. For cables that will be secured in the field, the maximum support interval shall be specified in the installation instructions;



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		<p>b) Connections and splices outside a sign body or enclosure shall be mechanically secured within 75 mm (3 in) of the connection point. This information shall be provided in the installation instructions if the connections are to be made or completed in the field;</p> <p>c) Connections and splices in a wet location, outside an enclosure or sign body, shall be made with insulating devices that are suitably rated for the environment; and</p> <p>d) Bends in the cable shall be made so as not to damage the cable and be no less than four times the overall diameter of the cable.</p>
4.3	Info	<b>Devices and components</b>
4.3.5	Info	<b>Receptacles</b>
4.3.5.0		<b><i>New section added;</i></b>  <b>General</b>
4.3.5.0.1		A receptacle provided in or on a sign shall be in accordance with 4.3.5.1, 4.3.5.2 or 4.3.5.3.
4.3.5.0.2		A receptacle with or without a USB slot shall comply with the requirements in the Standard for Attachment Plugs and Receptacles, UL 498. An independent Class 2 output low-voltage connector (i.e. USB) slot shall comply with the requirements in the Standard for Class 2 Power Units, UL 1310.
4.3.5.3		<b><i>New section added;</i></b>  <b>Auxiliary Receptacles</b>
4.3.5.3.1		Receptacles embedded in a sign to provide a supplementary or stand-alone function such as charging stations shall be accessible external to the sign enclosure.
4.3.5.3.2		Receptacles that derive power from within the sign electrical enclosure shall comply with:  a) The supplementary circuit protection requirements in 4.3.5.1.2, and b) The marking requirement of 7.2.19.
4.3.5.3.3		Receptacles that are powered separate from all sign circuits and that are installed in a separate electrical enclosure attached to the sign shall comply with:  a) The requirements in 4.3.5.2.4 sub-clauses a through e, and 4.3.5.2.5, and b) The marking requirements of 7.2.19 and 7.2.20.
4.4	Info	<b>Supplementary requirements</b>
4.4.2	Info	<b>Signs using Class 2 LED illumination system</b>
4.4.2.5		<del>Class 2 circuits shall be wired with Power Limited Circuit cable that complies with the Standard for Power Limited Circuit Cables, UL 13, or with other wiring/cable that is suitably rated for higher voltages.</del>



CLAUSE	VERDICT	COMMENT
		<u>Wiring for use in the secondary of a Class 2 LED illumination system shall be selected in accordance with 4.2.5.5.1.11 to 4.2.5.5.1.11B.</u>
		<b><i>New clause added;</i></b>
4.4.2.6		Power limited circuit cables installed in secondary circuits of Class 2 LED signs shall be in accordance with 4.2.5.5.1.11C.
4.4.12	Info	<b>Photovoltaic powered signs</b>
		Photovoltaic powered signs may be provided with combinations of power conversion devices such as dc/ac inverters, photovoltaic charge controllers, or battery chargers. Photovoltaic powered signs may be designed for one of the following modes of operation:
4.4.12.2		c) Utility interactive - Power for sign operation may be provided from the photovoltaic source, an optional battery, or the ac utility. A connection to the ac utility service is provided, and an inverter which complies with the <u>applicable standard specified in Table 4.23 and is marked "Utility Interactive Inverters" or "Grid Support Utility Interactive Inverter" Standard for Inverters, Converters, Controllers and Interconnection System Equipment for Use With Distributed Energy Systems, UL 1741 requirements for "Utility Interactive Inverters"</u> may supply loads in parallel with the ac utility and/or supply current or power to the ac utility.
7	Info	<b>Marking</b>
7.2	Info	<b>All signs</b>
		<b><i>New clause added;</i></b>
7.2.19		The maximum electrical rating expressed in volts and amperes shall be marked adjacent to each individual or group of auxiliary receptacles.
		<b><i>New clause added;</i></b>
7.2.20		Signs that incorporate auxiliary receptacles that are powered separate from all sign circuits shall be marked adjacent to the disconnect switch with the statement: "CAUTION – Risk of electric shock. Sign disconnect does not de-energize receptacles. Disconnect all branch circuit-breakers or fuses before servicing this sign".
CUSTOMERS PLEASE NOTE: This Table and column "Verdict" can be used in determining how your current or future production is or will be in compliance with new/revised requirements.		