STANDARDS UPDATE NOTICE (SUN)
ISSUED: November 19, 2021

STANDARD INFORMATION

Standard: UL 1564
Standard ID: Industrial Battery Chargers [UL 1564:2015 Ed.4+R:25Aug2020]
Previous Standard ID: Industrial Battery Chargers [UL 1564:2015 Ed.4]

EFFECTIVE DATE OF NEW/REVISED REQUIREMENTS

Effective Date: **August 25, 2022**

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.

Overview of Changes: New requirements added for industrial battery chargers intended to charge Lithium Ion batteries. 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 – Please immediately identify any current Listing Reports or products that are no longer active and should be removed from our records.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.
Supplement SB		***New supplement added;*** **INDUSTRIAL BATTERY CHARGERS INTENDED FOR CHARGING LITHIUM ION (Li-ion) CHEMISTRIES**
SB1	Info	**Scope**
SB1.1		These requirements supplement and in some cases modify the requirements in Sections 1 – 49 and Supplement SA.
SB1.2		These chargers are not intended to provide protection to industrial batteries unless specifically evaluated as a system.
SB1.3		Industrial batteries provided with a Battery Management System (BMS) and intended for use with a specific charger shall comply with the relevant standard as follows: a) UL 2271, Batteries for Use in Light Electric Vehicle (LEV) Applications; b) UL 2580, Batteries for Use in Electric Vehicles; or c) UL 1973, Batteries for Use in Stationary, Vehicle Auxiliary Power and Light Electric Rail (LER) Applications. If the Battery Management System or a portion of the protective system and/or Battery Management System resides within external components or within the charger, then the combination of the external components, charger, and the battery pack are critical and shall be evaluated together to the requirements of the respective battery standard and this Standard. The battery pack and charger and shall be provided with marking for correct use.
	Info	**PERFORMANCE**
SB2	Info	**Power Input Test**
SB2.1		A product having an output rating of more than 20 amperes is to be tested with its intended battery chemistry.
SB3		**Temperature Test**
SB3.1		During the Temperature Test of a product using a battery load, the battery shall be fully discharged per the battery manufacturer's specifications and then charged until temperatures on the product reach a maximum and begin to decrease. The Temperature Test is then to be continued using a second battery, also fully discharged per the battery manufacturer's specifications, until maximum temperatures are attained. A product provided with a timer and a marked charging

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		time based on the ampere-hour capacity of the battery is to be tested for the marked time period. Exception: A second battery is not used for products which have a marked charging time such that only one battery can be charged during an 8-hour period.
SB4		**Intermediate Abnormal Test**
SB4.1		A product tested using a battery as a load as described in SB3.1 shall be subjected to the Intermediate Abnormal Test specified in 31.2 immediately following the Temperature Test. The product shall not emit flame or molten metal or result in a risk of fire or electric shock during the test. The test is to be followed by a Dielectric Voltage-Withstand Test, as specified in 32.1.1(a), applied between the primary and secondary windings of the transformer. Exception: A product that is current limited during normal charging is not required to be subjected to a continuous load test.
SB5	Info	**Reverse Polarity**
SB5.1		The external output leads are to be connected in reverse polarity to a fully-charged battery. The product is then to be connected to its maximum test voltage – see Table 27.1 – and operated until the ultimate condition is observed, or 4 hours if cycling of an automatically reset protector occurs. Fuses and other protective devices provided as part of the product are to remain in the circuit. Exception: Chargers intended for use with specific Industrial Batteries provided with a Battery Management System intended to detect and prevent reverse polarity at the terminals are exempt from this test.
	Info	**MARKINGS**
SB6	Info	**General**
SB6.1		A product shall be marked with charging instructions, number of cells, and ampere-hour rating.
SB6.2		A product marking or the User Manual shall provide sufficient information concerning any condition necessary to ensure that, when used as prescribed by the manufacturer, the equipment is unlikely to present a hazard as addressed by this Standard or within the Scope of this Standard.
SB6.3		Where the product and industrial battery combination is not identified, the product shall be marked with the following or equivalent statement: ”CAUTION: Risk of Fire. Use only battery packs that include the battery management system and all necessary protection for the battery pack integral to the pack.”
SB6.4		The unit shall be marked with the following or equivalent: ”Industrial Battery Charger for use with Lithium Ion Batteries”.