

Subject 484

July 20, 2018

SUMMARY OF TOPICS

The following changes in requirements to the Standard for Room Air Conditioners, UL 484, are being proposed:

1. Adding two references to the Standard for Automatic Electrical Controls for Household and Similar Use, Part 2: Particular Requirements for Temperature Sensing Controls, UL 61800-5-1, in the Section Covering Motor protection, Section 23.

2. Revising SB1.1, which covers the requirements for smart enabled room air conditioners, so that the scope correlates with the similar requirements in the Standard for Household Electric Cooking and Food Serving Appliances, UL 1026.

STP BALLOTS AND ALL COMMENTS DUE: August 20, 2018

UL's goal is to have no interest category comprise more than one-third of the STP membership balance. To improve the current balance for STP 484, UL is looking for participants in all interest categories except producers. Definitions for these interest categories are available on the Standards STP Internet site:

<http://ulstandards.ul.com/develop-standards/participation/interest-categories/>

If you are interested in applying for STP 484 membership or are aware of potential candidates for this STP, please contact the STP Project Manager, Alan.T.McGrath@ul.com.

For your convenience in review, proposed additions to existing requirements are shown underlined and proposed deletions are shown ~~lined-out~~.

1. Adding two references to the Standard for Automatic Electrical Controls for Household and Similar Use, Part 2: Particular Requirements for Temperature Sensing Controls, UL 61800-5-1, in the Section Covering Motor protection, Section 23.

RATIONALE

Proposal submitted by: Randy Haseman, UL LLC

This proposed revision is intended to allow power conversion equipment investigated to the Standard for Automatic Electrical Controls for Household and Similar Use, Part 2: Particular Requirements for Temperature Sensing Controls, UL 61800-5-1, to be used as motor controllers providing electronic motor protection as an alternate to UL 508C. UL 61800-5-1 is the new standard for motor drives to replace UL 508C, and requires the same or higher level of motor overload protection.

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PROPOSAL

23.2.2 Except as indicated in paragraphs 23.2.1 (c) and (f), electronically protected motor circuits shall comply with one of the following:

- a) The Standard for Tests for Safety-Related Controls Employing Solid-State Devices, UL 991. When the protective electronic circuit is relying upon software as a protective component, it shall comply with the requirements in the Standard for Software in Programmable Components, UL 1998. If software is relied upon to perform a safety function, it shall be considered software Class 1;
- b) The Standard for Automatic Electrical Controls – Part 1: General Requirements, UL 60730-1 as well as the Standard for Automatic Electrical Controls for Household and Similar Use, Part 2: Particular Requirements for Temperature Sensing Controls, UL 60730-2-9. If software is relied upon to perform a safety function, it shall be considered software Class B; or,
- c) The Standard for Power Conversion Equipment, UL 508C, or the Standard for Adjustable Speed Electrical Power Drive Systems – Part 5-1: Safety Requirements – Electrical, Thermal, and Energy, UL 61800-5-1 for a power conversion controller protecting a motor in a split-system or packaged terminal air conditioner. The controller shall incorporate overcurrent protection with the percentage protection set as indicated in Table 23.1.

Exception: Compliance with the above standards is not required for an electronically protected motor circuit if there is no risk of fire, electric shock, or casualty hazard during abnormal testing with the protective electronic circuit rendered ineffective.

23.4 Protection of hermetic refrigerant motor-compressors

23.4.1 Hermetic refrigerant motor-compressors shall be protected in accordance with one or more of the following:

- a) The applicable requirements in UL 60335-2-34; or
- b) The Standard for Power Conversion Equipment, UL 508C, or the Standard for Adjustable Speed Electrical Power Drive Systems – Part 5-1: Safety Requirements – Electrical, Thermal, and Energy, UL 61800-5-1 for a power conversion controller protecting a compressor in a split-system or packaged terminal air conditioner. The controller shall incorporate overcurrent protection with the percentage protection set as indicated in Table 23.1.

2. Revising SB1.1, which covers the requirements for smart enabled room air conditioners, so that the scope correlates with the similar requirements in the Standard for Household Electric Cooking and Food Serving Appliances, UL 1026.

RATIONALE

Proposal submitted by: Matthew Williams, AHAM

UL 1026 SA 1.1 includes the language: “The smart enabled control response may include, but is not limited to, status indication, delayed start, remote stop of a function, remote start, adjusted temperature setting operation, or extended Timer On or Off operation.”

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