



Frequently Asked Questions for the Transition from UL 508C to UL 61800-5-1



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1.) What is the transition from UL 508C to UL 61800-5-1 and why is it being done?

The standard for Power Conversion Equipment, UL 508C, has been harmonized with the IEC standard for Adjustable Speed Electrical Power Drive Systems – Part 5-1: Safety Requirements – Electrical, Thermal, and Energy, IEC 61800-5-1.

This harmonization work was undertaken with the intent of creating a standard that, while being based upon and adopting IEC requirements, would incorporate national differences that would address U.S. installation requirements (NFPA 70, US National Electrical Code). This goal has largely been accomplished in all cases.

The majority of this work was conducted over the past 10 years within the NEMA subcommittee NEMA SC7. The NEMA subcommittee, under which the harmonization work was done, is now concentrating on reviewing these harmonized standards with the goal of reducing the number of national differences to the greatest extent possible. Similar efforts are ongoing within the specific IEC subcommittee that has responsibility for the base IEC document, IEC 61800-5-1. There is support for this harmonization effort within both the NEMA and IEC communities. UL participates in both the relevant NEMA and IEC subcommittees.

2.) Is the new UL 61800-5-1 standard a Bi-National (United States & Canadian) standard?

The new harmonized UL 61800-5-1 Standard is the ANSI for the U.S. It is not a Bi-National standard. The standard used for investigation of drives for Canada for UL's Canadian Certification marks is maintained by CSA.

3.) Is UL 508C going to be withdrawn?

Yes, the new UL 61800-5-1 standard will replace UL 508C, see FAQ #4 for timeline.

4.) How will the harmonized standard be implemented?

The implementation plan for UL 61800-5-1 is as follows. The three transition phases are:

DATE	TRANSITION PHASE
Before February 1 st , 2016	All investigations may be done to either UL 508C or UL 61800-5-1. UL 61800-5-1 will be used at the request of the manufacturer.
February 1 st , 2016 – February 1 st , 2020	New products will be required to be investigated to UL 61800-5-1. Revisions to existing products may be investigated to UL 508C or the product can be transition to UL 61800-5-1 at the request of the manufacturer.
After February 1 st , 2020	UL 508C will be withdrawn. UL 61800-5-1 will be the only standard available for investigation.

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Please see the [2nd Communication](#) (UL's 508C Continuing Certification Bulletin) for more details.

5.) Will there be a UL Industry File Review (IFR) for products currently certified to UL 508C?

No. UL is using a Continuing Certification Approach for the implementation of the new UL 61800-5-1. Products that are certified to UL 508C may remain certified after the withdrawal of UL 508C without an investigation to UL 61800-5-1. However, because UL 508C has been withdrawn, if a product certified to UL 508C is modified in a way that requires an investigation, the new UL 61800-5-1 standard must be used for the investigation and the product will then have to comply with all requirements of UL 61800-5-1; this will require an investigation of the product to all significant differences between UL 61800-5-1 and UL 508C. Please see the [2nd Communication](#) (UL's 508C Continuing Certification Bulletin) for more details.

6.) How will products evaluated to UL 508C be identified from products evaluated to UL 61800-5-1?

In order to evaluate products to the new harmonized standard and in an attempt to differentiate between those products evaluated to UL 508C and those to the new harmonized standard, the guide card associated with UL's Category Control Number (CCN) for drives, NMMS, has been revised to include the new harmonized document. Products evaluated using UL 61800-5-1 will be separated in the individual listing cards from those that were evaluated using UL 508C. Product Listing cards can be viewed on [UL's Online Certifications Directory](#).

7.) How will this transition affect end product standards that currently reference UL 508C?

Product standards that currently reference UL 508C will be revised to include UL 61800-5-1. It is not anticipated that this transition will have a significant impact on product standards resulting in the need for an Industry File Review.

8.) Will products evaluated to the harmonized standards be accepted in the field?

Products investigated to UL 618000-5-1 are intended for installation in accordance with NFPA 70 (NEC) just as are products evaluated to UL 508C. The CCNs are not changing and the product identity markings are the same. It is not anticipated that this transition will result in field issues regarding acceptance of products evaluated to the harmonized standards.

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9.) How will manufacturers of products evaluated to UL 508C be made aware of this transition?

Over the course of the next years leading up to February 1st, 2016 and February 1st, 2020, UL will periodically issue bulletins to industry reminding them of the on-going transition. Bulletins will also be published on the [UL 508C Transition webpage](#).

10.) Do the national differences of UL 61800-5-1 make it equivalent to UL 508C? Specifically, is a product certified to UL 508C able to be certified to UL 61800-5-1 without further investigation?

No. The harmonization committee chose to adopt IEC requirements, most notably insulation coordination principles in regards to clearances and creepages, which make the requirements of UL 61800-5-1 and UL 508C not equivalent. There are also modifications made to requirements through national differences that make the requirements of UL 61800-5-1 and UL 508C not equivalent. For a detailed list of the most significant differences between UL 61800-5-1 and UL 508C, please see the Addendum to the [2nd Communication](#) (UL's 508C Continuing Certification Bulletin).

11.) Since UL 61800-5-1 is harmonized with IEC 61800-5-1, does compliance to UL 61800-5-1 mean compliance with IEC 61800-5-1 (or vice versa)?

No. Due to the national differences in UL 61800-5-1, the requirements of neither standard can fully be considered representative of the other. However, because the harmonization committee took the steps to adopt a significant number of the IEC requirements, compliance to both standards can be done under a single representative investigation which would be require significantly less effort. UL is currently not an NCB (National Certification Body) for IEC 61800-5-1 under the IECEE CB scheme, however UL is able to provide a full Informative Test Report and Technical File for use by manufacturers for self-declaration. Please contact your local UL Product Safety representative for more information.

12.) How will this transition affect UL's Data Acceptance Program (DAP) participants that currently have UL 508C in their scope of tests ?

Because there are some differences between test requirements of UL 508C and UL 61800-5-1, participants of UL's Data Acceptance Programs for UL 508C will be required to have an assessment to add UL 61800-5-1 to their scope. Due to similarities of standards a full assessment of all tests is not required. Note, testing that is witnessed at a customer's facility shall also comply UL 61800-5-1's technical requirements and in addition to UL's DAP (for WTDP) requirements. A bulletin with more information will be sent to participants of UL's DAP in the near future. Please contact your local UL Product Safety Representative for more information.

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13.) Can customers download UL 61800-5-1 free of charge from the UL Standards website?

Current UL Applicants/Subscribers can download UL 508C free of charge on the UL Standards website. However, customers are unable to view or download UL 61800-5-1 free of charge due to the ANSI copyright agreement for IEC Standards. Only the US national differences are available for download. Due to the copyright, customers must pay to view or download a complete copy of UL 61800-5-1.

Customers are able to purchase the UL IEC-Based Standard for a reduced cost from the Standards Certification Customer Library (SCCL) and have immediate access to view and/or download this document.

14.) When can UL begin issuing certification to UL 61800-5-1?

UL is currently accepting product submittals to UL 61800-5-1. Please contact your local representative for additional information or visit us at www.ul.com to submit your request.

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