



UL 62093

STANDARD FOR SAFETY

Photovoltaic System Power Conversion
Equipment – Design Qualification and
Type Approval

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UL Standard for Safety for Photovoltaic System Power Conversion Equipment – Design Qualification and Type Approval, UL 62093

Second Edition, Dated December 7, 2023

Summary of Topics

This Second Edition ANSI/UL 62093 dated December 7, 2023 is an adoption of IEC 62093, Photovoltaic System Power Conversion Equipment – Design Qualification and Type Approval (Second Edition, issued January 2022) with US National Differences.

These requirements are substantially in accordance with Proposal(s) on this subject dated April 21, 2023 and November 3, 2023.

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UL 62093

Standard for Photovoltaic System Power Conversion Equipment – Design

Qualification and Type Approval

First Edition – February, 2017

Second Edition

December 7, 2023

This ANSI/UL Standard for Safety consists of the Second Edition.

The most recent designation of ANSI/UL 62093 as an American National Standard (ANSI) occurred on December 7, 2023. ANSI approval for a standard does not include the Cover Page, Transmittal Pages, Title Page, or Preface. The National Difference Page and IEC Foreword are also excluded from the ANSI approval of IEC-based standards.

Comments or proposals for revisions on any part of the Standard may be submitted to ULSE at any time. Proposals should be submitted via a Proposal Request in the Collaborative Standards Development System (CSDS) at <https://csds.ul.com>.

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PREFACE

This UL Standard is based on IEC Publication IEC 62093: Second edition, Photovoltaic System Power Conversion Equipment – Design Qualification and Type Approval. IEC publication 62093 is copyrighted by the IEC.

This Second edition has been issued to satisfy UL Standards policy.

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Note – Although the intended primary application of this Standard is stated in its Scope, it is important to note that it remains the responsibility of the users of the Standard to judge its suitability for their particular purpose.

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NATIONAL DIFFERENCES

National Differences from the text of International Electrotechnical Commission (IEC) Publication 62093, Photovoltaic System Power Conversion Equipment – Design Qualification and Type Approval, copyright 2022, are indicated by notations (differences) and are presented in bold text.

There are five types of National Differences as noted below. The difference type is noted on the first line of the National Difference in the standard. The standard may not include all types of these National Differences.

DR – These are National Differences based on the **national regulatory requirements**.

D1 – These are National Differences which are based on **basic safety principles and requirements**, elimination of which would compromise safety for consumers and users of products.

D2 – These are National Differences from IEC requirements based on existing **safety practices**. These requirements reflect national safety practices, where empirical substantiation (for the IEC or national requirement) is not available or the text has not been included in the IEC standard.

DC – These are National Differences based on the **component standards** and will not be deleted until a particular component standard is harmonized with the IEC component standard.

DE – These are National Differences based on **editorial comments or corrections**.

Each national difference contains a description of what the national difference entails. Typically one of the following words is used to explain how the text of the national difference is to be applied to the base IEC text:

Addition / Add - An addition entails adding a complete new numbered clause, subclause, table, figure, or annex. Addition is not meant to include adding select words to the base IEC text.

Modification / Modify - A modification is an altering of the existing base IEC text such as the addition, replacement or deletion of certain words or the replacement of an entire clause, subclause, table, figure, or annex of the base IEC text.

Deletion / Delete - A deletion entails complete deletion of an entire numbered clause, subclause, table, figure, or annex without any replacement text.

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