UL 2202

STANDARD FOR SAFETY

DC Charging Equipment for Electric Vehicles

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UL Standard for Safety for DC Charging Equipment for Electric Vehicles, UL 2202

Third Edition, Dated December 15, 2022

Summary of Topics

This revision of UL 2202 dated July 21, 2026 is an editorial update to remove the ANCE logo and approval from the title page and and ANCE references from the Preface. No technical changes have been made.

As noted in the Commitment for Amendments statement located on the back side of the title page, ULSE and CSA are committed to updating this harmonized standard jointly. However, the revisions dated July 21, 2026 will not be jointly issued by ULSE and CSA as these revision pages address removal of the ANCE logo from the title page and Preface. While ANCE continues to participate in the technical development of this trinational standard, the ANCE logo has been removed from the title page and Preface as standards cannot be formally published in Mexico at this time.

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PREFACE

This is the harmonized CSA Group and ULSE Standard for DC Charging Equipment for Electric Vehicles. It is the first edition of CSA C22.2 No. 346, and the third edition of UL 2202. This edition of UL 2202 supersedes the previous edition(s) published on October 2, 2009, titled Electric Vehicle (EV) Charging System Equipment.

This harmonized standard was prepared by CSA Group and ULSE Inc. (ULSE). The efforts and support of the Technical Harmonization Committee for Electric Vehicle Supply Equipment of the Harmonization of Electrotechnical Standards of the Nations of the Americas (CANENA) are gratefully acknowledged.

This standard is considered suitable for use for conformity assessment within the stated scope of the standard.

While ANCE continues to participate in the technical development of this trinational standard, the ANCE logo has been removed from the title page as standards cannot be formally published in Mexico at this time.

This standard was reviewed by the CSA Subcommittee on DC Fast Charging System for Electric Vehicles, under the jurisdiction of the CSA Technical Committee on Industrial Products and the CSA Strategic Steering Committee on Requirements on Electrical Safety, and has been formally approved by the CSA Technical Committee. This standard has been developed in compliance with Standards Council of Canada requirements for National Standards of Canada. It has been published as a National Standard of Canada by CSA Group.

Application of Standard

Where reference is made to a specific number of samples to be tested, the specified number is to be considered a minimum quantity.

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.

Level of Harmonization

This standard uses the IEC format but is not based on, nor is it considered equivalent to, an IEC standard.

This standard is published as an equivalent standard for CSA Group and ULSE.

An equivalent standard is a standard that is substantially the same in technical content, except as follows: Technical national differences are allowed for codes and governmental regulations as well as those recognized as being in accordance with NAFTA Article 905, for example, because of fundamental climatic, geographical, technological, or infrastructural factors, scientific justification, or the level of protection that the country considers appropriate. Presentation is word for word except for editorial changes.

Reasons for Differences From IEC

This standard provides general requirements for electric vehicle supply equipment for use in accordance with the electrical installation codes of Canada, Mexico, and the United States. At present there is no IEC standard for these products for use in accordance with these codes. Therefore, this standard does not employ any IEC standard for base requirements.

Interpretations

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The interpretation by the standards development organization of an identical or equivalent standard is based on the literal text to determine compliance with the standard in accordance with the procedural rules of the standards development organization. If more than one interpretation of the literal text has been identified, a revision is to be proposed as soon as possible to each of the standards development organizations to more accurately reflect the intent.

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DC Charging Equipment for Electric Vehicles

INTRODUCTION

1 Scope

1.1 These requirements apply to DC conductive charging equipment intended to be supplied with a maximum input voltage of 1000 V ac or 1500 V dc, for recharging the propulsion batteries in over-the-road electric vehicles (EV). DC charging equipment for EV installations are intended for either:

a) Dry location only, or

b) Dry, wet, and damp location.

Equipment is intended to be installed in accordance with the Installation Codes in Annex A, Ref. No. 1.

1.2 The output of the DC charging equipment for EV shall not exceed 1500 V dc.

1.3 For the purposes of this Standard, the term "electric vehicle", designated throughout by the initials "EV", is considered to cover electric vehicles, hybrid electric vehicles, and plug-in versions of these vehicles.

1.4 DC charging equipment for EV that is not a complete assembly and depends upon installation in an end product for compliance with the requirements in this Standard is investigated under the requirements of this Standard and the standard for the end product.

1.5 These requirements do not cover battery chargers covered by Annex A, Ref. Nos. 2 and 3.

1.6 These requirements do not cover on-board chargers.

1.7 These requirements do not cover electric vehicle supply equipment covered by Annex A, Ref. No. 4.

1.8 These requirements do not cover DC charging equipment for EV intended to be used in hazardous locations, such as near fuel dispensing stations.

2 Glossary

2.1 In the text of this Standard, the term "unit" refers to any product covered by this standard. The letters "EV" refers to an electric vehicle, a hybrid electric vehicle, or plug-in versions of these vehicles in accordance with 1.2. For the purpose of this Standard, the following definitions apply.

2.2 ACCESSIBLE PART – A part so located that it is capable of being contacted by a person, either directly or by means of an accessibility probe.

2.3 BARRIER – A part inside an enclosure that reduces access to a part that involves a risk of fire, electric shock, injury to persons, or electrical energy – high current levels.

2.4 BASIC INSULATION – The insulation required for the proper functioning of a device, and for basic protection against electrical hazard.

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