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Electric Vehicle Conductive Charging and
Discharging System—Part 4: Discharging
Requirements for Electric Vehicle

电动汽车传导充放电系统
第4部分：车辆对外放电要求

(English Translation)

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CONTENTS

Foreword	I
Introduction	II
1 Scope	1
2 Normative References	1
3 Terms and Definitions	2
4 Classification	3
5 General Requirements	6
6 Communications	10
7 Requirements for Conductive Connection Assembly	10
8 Special Requirements for Electrical Load	10
9 Other Safety Requirements for Discharging Vehicle	12
10 Environmental Requirements	13
11 Markings and Instructions	13
Annex A (Normative) AC V2L Discharging Control Pilot Circuit and Its Control Principle	14
Annex B (Normative) AC V2V Discharging Control Pilot Circuit and Its Control Principle	29
Annex C (Normative) DC V2L Discharging Control Pilot Circuit and Its Control Principle	36
Annex D (Informative) DC V2L Communication Protocol	43
Bibliography	49

Electric Vehicle Conductive Charging and Discharging System

—Part 4: Discharging Requirements for Electric Vehicle

1 SCOPE

This document specifies the classification, general requirements, communications, requirements for connection assembly and electrical load, safety requirements for discharging vehicle, environmental requirements, and markings and instructions, with respect to the electric vehicle conductive discharging system.

This document is applicable to the electric vehicles that can discharge through the vehicle coupler, where the rated output voltage for AC discharging shall not exceed 250V for single-phase or 440V for three-phase, and the output voltage for DC discharging shall not exceed 1,000V.

This document is applicable to electric vehicles of Category M₁ only.

This document is not applicable to discharging through the discharge couplers inside the vehicle, e.g., cigarette lighters, USB ports, and socket-outlets conforming to GB/T 1002, etc.

This document is not applicable to the power supplies intended for special electrical equipment such as medical equipment.

2 NORMATIVE REFERENCES

The following normative documents contain provisions which, through normative reference in this text, constitute essential provision of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendment) applies.

- GB/T 2423.7-2018 Environmental testing- Part 2: Test methods—Test Ec: Rough handling shocks, primarily for equipment—type specimens
- GB/T 2900.33 Electrotechnical terminology--Power electronics
- GB/T 16895.3 Low-voltage electrical installations—Part 5-54: Selection and erection of electrical equipment—Earthing arrangements and protective conductors
- GB/T 16935.1-2023 Insulation coordination for equipment within low-voltage supply systems—Part 1: Principles, requirements and tests
- GB/T 17045 Protection against electric shock—Common aspects for installations and equipment
- GB 18384-2020 Electric vehicles safety requirements
- GB/T 18487.1-2023 Electric vehicle conductive charging system—Part 1: General requirements
- GB/T 19596 Terminology of electric vehicles
- GB/T 20234.1-2023 Connection set for conductive charging of electric vehicles—Part 1: General requirements
- GB/T 20234.2-2015 Connection set for conductive charging of electric vehicles—Part 2: AC charging coupler
- GB/T 20234.3-2023 Connection set for conductive charging of electric vehicles—Part 3: DC charging coupler
- GB/T 38661-2020 Technical specifications of battery management system for electric vehicles
- GB 50052-2009 Code for Design Electric Power Supply Systems



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