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**Coding Regulation for Swapping Power Battery Pack
of Electric Vehicles**

电动汽车更换用动力蓄电池箱编码规则

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Table of Contents

Foreword.....	3
1 Scope.....	4
2 Normative References	4
3 Terms and Definitions	4
4 Basic Regulations	5
5 Coding	5
6 Data Carrier	9
Appendix A (informative) Example of Coding	11

Foreword

This Standard was drafted in accordance with the rules in GB/T 1.1-2009.

Please be noted that certain content of this document might involve patents. The institution issuing this document does not undertake the responsibility of identifying these patents.

This Standard was proposed by and shall be under the jurisdiction of China Electricity Council.

The drafting organizations of this Standard: XJ Group Corporation; China Electricity Council; State Grid Electric Vehicle Service Company Ltd.; State Grid Shandong Electric Power Corporation; State Grid Zhejiang Electric Power Corporation; State Grid Henan Electric Power Corporation Economic and Technical Research Institute; BAIC BJEV; Shanghai NIO Automobile Co., Ltd.; China Electric Power Research Institute; Chongqing Yifeng Energy Co., Ltd.; Shanghai Dianba New Energy Technology Co., Ltd.

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Coding Regulation for Swapping Power Battery Pack of Electric Vehicles

1 Scope

This Standard specifies the basic regulations, coding structure and data carrier for the uniform coding of swapping power battery pack of electric vehicles (hereinafter referred to as battery pack).

This Standard is applicable to the use, maintenance, management and traceability of battery packs adopting the battery swapping mode.

2 Normative References

The following documents are indispensable to the application of this document. In terms of references with a specified date, only versions with a specified date are applicable to this document. In terms of references without a specified date, the latest version (including all the modifications) is applicable to this document.

GB/T 15425 Bar Code for Commodity - 128 Bar Code

GB/T 18284 QR Code

GB/T 18347 Code 128

GB/T 29317 Terminology of Electric Vehicle Charging / Battery Swap Infrastructure

ISO/IEC 16022 Information Technology - Automatic Identification and Data Capture Techniques - Data Matrix Bar Code Symbol Specification

3 Terms and Definitions

What is defined in GB/T 29317, and the following terms and definitions are applicable to this document.

3.1 Power Battery Pack

Power battery pack refers to a device composed of several single batteries or power battery modules, casings, battery information collection units, and related electrical and mechanical accessories, etc.

3.2 Battery Pack Code

The identification of the rated capacity of the battery pack shall be represented by numbers, and the value range shall be 000 ~ 999; the unit is (A • h).

5.2.9 Nominal voltage of battery pack

The identification of the nominal voltage of the battery pack shall be represented by numbers, and the value range shall be 000.0 ~ 999.9; the unit is (V).

5.2.10 Connector code

The identification of the battery pack connector shall be represented by two English capital letters, numbers 0 ~ 9, or a combination of letters and numbers. Letters that may be easily confused with numbers should not be used, such as: O, I, Q, S and Z, etc.

5.2.11 Locking mechanism code

The identification of the locking mechanism of the battery pack shall be represented by two English capital letters, numbers 0 ~ 9, or a combination of letters and numbers. Letters that may be easily confused with numbers should not be used, such as: O, I, Q, S and Z, etc.

5.2.12 Casing structure code

The identification of the casing structure of the battery pack shall be represented by two English capital letters, numbers 0 ~ 9, or a combination of letters and numbers. Letters that may be easily confused with numbers should not be used, such as: O, I, Q, S and Z, etc.

6 Data Carrier

6.1 Modes of Identification

6.1.1 Requirements for identification modes

In terms of the modes of identification, at least one of the one dimensional code and QR code shall be adopted for the identification.

6.1.2 One dimensional code

The data carrier of one dimensional code shall comply with the requirements of GB/T 18347 and GB/T 15425. See Appendix A for an example of coding.

6.1.3 QR code

The data carrier of QR code shall respectively comply with the requirements of GB/T 18284 and ISO/IEC 16022.

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