ICS 29.060.10

T 36



NATIONAL STANDARD OF THE PEOPLE'S REPUBLIC

OF CHINA

中华人民共和国国家标准

GB/T 18487.3-2001

Electric vehicle conductive charging system

A.C./D.C. Electric vehicle charging station

电动车辆传导充电系统

电动车辆交流/直流充电机(站)

Issued on November 02, 2001

Implemented on May 01, 2002

Issued by General Administration of Quality Supervision, Inspection and Quarantine of the People's Republic of China

Contents

Foreword1		
IEC	Foreword	2
1	Scope	4
2	Normative References	4
3	Definitions	7
4	General provisions	7
5	The standard conditions of actual operation and installation	8
6	The rated AC input and DC output voltage and current value	8
7	General test requirements	9
8	Functions and requirements	9
9	Electrical safety	12
10	Dielectric insulation test	13
11	Environment testing	16
12	Connector requirements	24
13	The communication between electric vehicle and DC charger (stations)	24
14	Classification	25
15	Identification and specification	25
Anr	nex A (Informative) Other requirements of charger (station)	27
Anr	nex B (Informative) References	29

Foreword

This Standard is equivalent to IEC/CDV 61851-2-2: 1999 A.C. electric vehicle conductive charging station and IEC/CDV 61851-2-3: 1999 D.C. electric vehicle conductive charging station, supplemented the achievement and experience according to domestic electric vehicle charging technical development and manufacturing and operating of equipment, meanwhile, related requirements which not apply to practice situation of domestic are modified, such as come contents are inconformity with national standards and adjusted the index and too stringent requirements.

This Standard also refers to JEVS G101-1993 and SAE-J 1772-196.

Annex A and Annex B of this Standard are informative annex.

This Standard is proposed by State Bureau of Machine Building Industry.

This Standard is under the jurisdiction of National Vehicle Standardization Technical Committee.

The responsible drafting organization is Tsinghua University.

The participate drafting organizations are Northern Jiaotong University, Beijing C&W Electronics (Group) Co., LTD, 18th Research Institute, China Research Institute of Electronic Equipment and Baoding Jin Fengfan Storage Battery Co., Ltd.

The chief drafting staff of this standard includes Qi Guoguang, Liu Zhongren, Sun Xiaomin, Zhou Xide, Wang Changqing, Qu Xiaohong and Xu Changhong, etc.

IEC Foreword

1) The International Electrotechnical Commission (IEC) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of IEC is to promote international co-operation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, IEC publishes International Standards, Technical Specifications, Technical Reports, and Guides (hereafter referred to as "IEC Publication(s)"). Their preparation is entrusted to technical committees; any IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and non-governmental organizations liaising with the IEC also participate in this preparation. IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.

2) The formal decisions or agreements of IEC on technical matters express, as nearly as possible, an international consensus of opinion on the relevant subjects since each technical committee has representation from all interested IEC National Committees.

3) IEC Publications have the form of recommendations for international use and are accepted by IEC National Committees in that sense. While all reasonable efforts are made to ensure that the technical content of IEC Publications is accurate, IEC cannot be held responsible for the way in which they are used or for any misinterpretation by any end user.

4) In order to promote international uniformity, IEC National Committees undertake to apply IEC Publications transparently to the maximum extent possible in their national and regional publications. Any divergence between any IEC Publication and the corresponding national or regional publication shall be clearly indicated in the latter.

5) IEC provides no marking procedure to indicate its approval and cannot be rendered responsible for any equipment declared to be in conformity with an IEC Publication.

6) Attention is drawn to the possibility that some of the elements of this IEC Publication

2

may be the subject of patent rights. IEC shall not be held responsible for identifying any or all such patent rights.

International Standard IEC 61851-2-2 and IEC 61851-2-3 has been prepared by sub-committee 7B.

IEC 61851-2-2 and IEC 61851-2-3 are part 2 and part 3 of series standard IEC 61851.

Issued standards series divided into following parts:

Part 1: Electric vehicle conductive charging system -- Part 1: General requirements

Part 2: Electric vehicle conductive charging system--Electric vehicles requirements for conductive connection to an A.C/D.C. supply

Part 2 has been subdivided into following parts (these parts have prepared as International Standard)

- Part 2-1: Electric vehicle conductive charging system Part I: General requirements
- Part 2-2: Electric vehicle A.C. charging station.
- Part 2-3: Electric vehicle D.C. charging station.

Part 3: Communication protocol between electric vehicle charging station and electric vehicles.

Electric vehicle conductive charging system A. C. /D. C. Electric vehicle charging station

1 Scope

This standard is combined with GB/T 18487.1, and it specified the requirements and qualifications of AC/DC charger (charging station) which is connected to the electric vehicle (according to GB 156- 1993, AC voltage maximum value is 660V, DC voltage maximum value is 1000 V).

As for the AC charging station, this standard is exclusive of the cassette unit which doesn't have the charging control function. It is equipped with the socket which can supply power to the electric vehicles.

According to provisions of GB/T 18487.1, charging mode of electric vehicle DC charger (charging station) shall be mode 4.

This standard does not include other maintenance-related safety requirements.

2 Normative References

The involved provisions in the following standards will become the provisions through reference in this standard. When published, all the shown versions are valid. All the standards will be revised, and all parties using this standard shall discuss the possibility of using the latest version.

GB/T 156-1993 Standard voltage

GB/T 2423.1-1989 Basic environmental testing procedures for electric and electronic products--Tests A: Cold (eqv IEC 60068-2-1:1 974)

GB/T 2423.2-1989 Basic environmental testing procedures for electric and electronic products Tests B: Dry heat (eqv IEC 600682-2:1974)

GB/T 2423.3-1993 Basic environmental testing procedures for electric and electronic products—Test Ca: Damp heat, steady state (eqv IEC60068-2-3:1984)

GB/T 2423.4-1993 Basic environmental testing procedures for electric and electronic

4



北京文心雕语翻译有限公司 Beijing Lancarver Translation Inc.

完整版本请在线下单

或咨询: TEL: 400-678-1309 QQ: 19315219 Email:<u>info@lancarver.com</u> <u>http://www.lancarver.com</u>

线下付款方式:

1. 对公账户:

单位名称:北京文心雕语翻译有限公司

开户行:中国工商银行北京清河镇支行

账 号: 0200 1486 0900 0006 131

2. 支付宝账户 : info@lancarver.com

注: 付款成功后,请预留电邮,完整版本将在一个工作日内通过电子 PDF 或 Word 形式发送至您的预留邮箱,如需索取发票,下单成功后的三个工作日内安 排开具并寄出,预祝合作愉快!

