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Edition 1.0 2023-07

TECHNICAL SPECIFICATION

colour inside

Electric vehicles conductive charging system – Part 3-7: DC EV supply equipment where protection relies on double or reinforced insulation – Battery system communication



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CONTENTS

FOREWORD 8
INTRODUCTION 10
1 Scope 11
2 Normative references 11
3 Terms and definitions 11
4 Symbols and abbreviated terms 12
5 Operating principles 12
5.1 General 12
5.2 Battery system specific FSA 12
5.3 State definitions 13
5.4 Transitions in the FSA for battery systems 13
6 Object dictionary 14
6.1 General 14
6.2 Additional definitions to general application objects 15
6.2.1 General 15
6.2.2 Object 6001_h: Control word 15
6.2.3 Object 6002_h: Status word 15
6.3 Detailed complex data type specifications 15
6.3.1 General 15
6.3.2 Object 0081_h to 0082_h: Reserved 16
6.3.3 Object 0083_h: Ni-MH charging rules parameter record 16
6.4 Produced application objects 16
6.4.1 General 16
6.4.2 Object 6100_h: Type of battery cells 16
6.4.3 Object 6102_h: Battery system rated Wh capacity (optional) 20
6.4.4 Object 6105_h: Battery system temperature 22
6.4.5 Object 6126_h: Battery system maximum cell voltage (optional, mandatory for rental/swap battery systems) 25
6.4.6 Object 6127_h: Battery system minimum cell voltage (optional, mandatory for rental/swap battery systems) 27
6.4.7 Object 6160_h: Actual battery system Wh capacity 28
6.4.8 Object 6162_h: Full EMS output battery system Wh capacity (optional, mandatory for rental/swap battery systems) 30
6.4.9 Object 6164_h: Relative battery system Wh capacity (SOC) (optional) 32
6.4.10 Object 6192_h: Reserved 34
6.4.11 Object 6193_h: Threshold time of the battery system maximum charging time 34
6.5 Produced application objects (optional) 35
6.5.1 General 35
6.5.2 Object 6101_h: Battery system connecting status (optional) 35
6.5.3 Object 6103_h: Battery system rated Ah capacity (optional) 38
6.5.4 Object 6104_h: Battery system number of cells (optional) 39
6.5.5 Object 6106_h: Battery system lifetime (optional) 41

6.5.6 Object 6107_h: Battery system lifetime in cycles (optional) 42
6.5.7 Object 6108_h: Battery system lifetime EMS input capacity (optional) 44
6.5.8 Object 6109_h: Battery system manufacturer (optional) 45
6.5.9 Object $610A_h$: Battery system cell manufacturer (optional) 47
6.5.10 Object $610B_h$: Battery system cell notation (optional) 48
6.5.11 Object 6120_h: Battery system maximum charge start temperature (optional) 49
6.5.12 Object 6121_h: Battery system minimum charge start temperature (optional) 51
6.5.13 Object 6122_h: Battery system maximum discharge temperature (optional) 53
6.5.14 Object 6123_h: Battery system minimum discharge temperature (optional) 54
6.5.15 Object 6124_h: Battery system maximum temperature for storage (optional) 56
6.5.16 Object 6125_h: Battery system minimum temperature for storage (optional) 58
6.5.17 Object 6161_h: Actual battery system Ah capacity (optional) 59
6.5.18 Object 6163_h: Full EMS output battery system Ah capacity (optional) 61
6.5.19 Object 6165_h: Battery system VDN 1 actual cell voltage (optional) 62
6.5.20 Object 6166_h to 6174_h: Battery system VDN 2 to 16 actual cell voltage (optional) 64
6.5.21 Object 6175_h: Battery system balance (optional) 64
6.5.22 Object 6176_h: Battery system SOH (optional) 65
6.5.23 Object 6177_h: Battery system EMS output time (optional) 67
6.5.24 Object 6178_h: Battery system EMS input time (optional) 69
6.5.25 Object 6179_h: Battery system EMS output Ah counter (optional) 70
6.5.26 Object $617A_h$: Battery system EMS input Ah counter (optional) 72
6.5.27 Object $617B_h$: Battery system EMS output Wh counter (optional) 74
6.5.28 Object $617C_h$: Battery system EMS input Wh counter (optional) 75
6.5.29 Object $617D_h$: Battery system EMS output counter (optional) 77
6.5.30 Object $617E_h$: Battery system EMS input counter (optional) 79
6.5.31 Object $617F_h$: Battery system deep discharging counter (optional) 80
6.5.32 Object 6180_h: Battery system short-circuit counter (optional) 82
6.5.33 Object 6181_h: Battery system over-temperature counter (optional) 83
6.5.34 Object 6182_h: Temperature dependent average EMS output current (optional) 85
6.5.35 Object 6183_h: Temperature dependent peak EMS output current (optional) 86
6.5.36 Object 6184_h: Temperature dependent average EMS input current (optional) 87
6.5.37 Object 6185_h: Temperature dependent peak EMS input current (optional) 88
6.5.38 Object 6186_h: Temperature dependent capacity correction (optional) 89

6.5.39 Object 6187_h: Battery system capacity dependent current correction (optional) 90
6.5.40 Object 6188_h: Battery system temperature dependent self-discharge rate (optional) 92
6.5.41 Object 6189_h: Temperature dependent cell charge maximum voltage (optional) 93
6.5.42 Object $618A_h$: Battery system 100 % to 90 % capacity dependent voltage correction (optional) 94
6.5.43 Object $618B_h$: Battery system 0 % to 10 % capacity dependent voltage correction (optional) 95
6.5.44 Object $618C_h$: Battery system point of cell balancing (optional) 96
6.6 Consumed application objects 98
6.6.1 General 98
6.6.2 Object $618F_h$: EMS output rules for Ni-MH battery system (optional) 98
6.6.3 Object $618D_h$: Battery system go to deep sleep mode timing (optional) 101
6.6.4 Object $618E_h$: Battery system minimal SOC for go to deep sleep mode (optional) 103
6.6.5 Object 6190_h: Battery system specific controls (optional) 104

Figure 1 – FSA for battery system 13
Figure 2 – Value structure 16
Figure 3 – Object structure 36
Figure 4 – Object structure 39

Table 1 – States behaviour 13
Table 2 – Transitions, events and actions 14
Table 3 – Value definition 15
Table 4 – Value definition for VD specific FSA control 15
Table 5 – Value definition for virtual device FSA state 15
Table 6 – Ni-MH charging rules parameter record 16
Table 7 – Value definition 17
Table 8 – Object description 18
Table 9 – Entry description 19
Table 10 – Object description 20
Table 11 – Entry description 21
Table 12 – Grouping of sub-indices 22
Table 13 – Object description 23
Table 14 – Entry description 23
Table 15 – Object description 25
Table 16 – Entry description 26
Table 17 – Object description 27
Table 18 – Entry description 27
Table 19 – Object description 29
Table 20 – Entry description 29
Table 21 – Object description 30

Table 22 – Entry description 31
Table 23 – Value definition 32
Table 24 – Object description 32
Table 25 – Entry description 33
Table 26 – Entry description 34
Table 27 – Entry description 35
Table 28 – Value definition 36
Table 29 – Object description 36
Table 30 – Entry description 37
Table 31 – Object description 38
Table 32 – Entry description 38
Table 33 – Value definition for the parallel and series cell number fields 40
Table 34 – Object description 40
Table 35 – Entry description 40
Table 36 – Object description 41
Table 37 – Entry description 42
Table 38 – Object description 43
Table 39 – Entry description 43
Table 40 – Object description 44
Table 41 – Entry description 44
Table 42 – Object description 46
Table 43 – Entry description 46
Table 44 – Object description 47
Table 45 – Entry description 47
Table 46 – Object description 48
Table 47 – Entry description 49
Table 48 – Object description 50
Table 49 – Entry description 50
Table 50 – Object description 51
Table 51 – Entry description 52
Table 52 – Object description 53
Table 53 – Entry description 53
Table 54 – Object description 55
Table 55 – Entry description 55
Table 56 – Object description 56
Table 57 – Entry description 56
Table 58 – Object description 58
Table 59 – Entry description 58
Table 60 – Object description 59
Table 61 – Entry description 60
Table 62 – Object description 61
Table 63 – Entry description 61
Table 64 – Object description 63

Table 65 – Entry description 63
Table 66 – Index assignments for battery system 2 to 16 64
Table 67 – Value definition 64
Table 68 – Object description 64
Table 69 – Entry description 65
Table 70 – Value definition 66
Table 71 – Object description 66
Table 72 – Entry description 66
Table 73 – Object description 67
Table 74 – Entry description 68
Table 75 – Object description 69
Table 76 – Entry description 69
Table 77 – Object description 71
Table 78 – Entry description 71
Table 79 – Object description 72
Table 80 – Entry description 73
Table 81 – Object description 74
Table 82 – Entry description 74
Table 83 – Object description 76
Table 84 – Entry description 76
Table 85 – Object description 77
Table 86 – Entry description 77
Table 87 – Object description 79
Table 88 – Entry description 79
Table 89 – Object description 80
Table 90 – Entry description 81
Table 91 – Object description 82
Table 92 – Entry description 82
Table 93 – Object description 84
Table 94 – Entry description 84
Table 95 – Object description 85
Table 96 – Entry description 86
Table 97 – Object description 86
Table 98 – Entry description 87
Table 99 – Object description 87
Table 100 – Entry description 88
Table 101 – Object description 88
Table 102 – Entry description 89
Table 103 – Object description 89
Table 104 – Entry description 90
Table 105 – Sub-index relation to capacity range 90
Table 106 – Value definition 91
Table 107 – Object description 91

Table 108 – Entry description 91
Table 109 – Object description..... 92
Table 110 – Entry description 92
Table 111 – Object description..... 93
Table 112 – Entry description 93
Table 113 – Value definition..... 94
Table 114 – Object description..... 94
Table 115 – Entry description 94
Table 116 – Value definition..... 95
Table 117 – Object description..... 95
Table 118 – Entry description 96
Table 119 – Object description..... 96
Table 120 – Entry description 97
Table 121 – Object description..... 99
Table 122 – Entry description 99
Table 123 – Object description..... 102
Table 124 – Entry description 102
Table 125 – Value definition..... 103
Table 126 – Object description..... 103
Table 127 – Entry description 103
Table 128 – Value definition..... 105
Table 129 – Object description..... 105
Table 130 – Entry description 106

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ELECTRIC VEHICLES CONDUCTIVE CHARGING SYSTEM –

Part 3-7: DC EV supply equipment where protection relies on double or reinforced insulation – Battery system communication

FOREWORD

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IEC TS 61851-3-7 has been prepared by IEC technical committee 69: Electrical power/energy transfer systems for electrically propelled road vehicles and industrial trucks. It is a Technical Specification.

The text of this Technical Specification is based on the following documents:

Draft	Report on voting
69/653/DTS	69/674/RVDTS 69/674A/RVDTS

Full information on the voting for its approval can be found in the report on voting indicated in the above table.

The language used for the development of this Technical Specification is English.

This document was drafted in accordance with ISO/IEC Directives, Part 2, and developed in accordance with ISO/IEC Directives, Part 1 and ISO/IEC Directives, IEC Supplement, available at www.iec.ch/members_experts/refdocs. The main document types developed by IEC are described in greater detail at www.iec.ch/publications.

The following print types are used:

– requirements: in roman type;

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– **text formatted in bold and using mixed capital and underline are used as state names and are not to be translated**.

A list of all parts in the IEC 61851 series, published under the general title *Electric vehicles conductive charging system,* can be found on the IEC website.

The committee has decided that the contents of this document will remain unchanged until the stability date indicated on the IEC website under webstore.iec.ch in the data related to the specific document. At this date, the document will be

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

INTRODUCTION

This document is published in separate parts according to the following structure:

IEC TS 61851-3-1, *Electric vehicles conductive charging system – Part 3-1: DC EV supply equipment where protection relies on double or reinforced insulation – General rules and requirements for stationary equipment*

IEC TS 61851-3-2, *Electric vehicles conductive charging – Part 3-2: DC EV supply equipment where protection relies on double or reinforced insulation – Particular requirements for portable and mobile equipment*

IEC TS 61851-3-4, *Electric vehicles conductive charging system – Part 3-4: DC EV supply equipment where protection relies on double or reinforced insulation – General definitions and requirements for CANopen communication*

IEC TS 61851-3-5, *Electric vehicles conductive charging system – Part 3-5: DC EV supply equipment where protection relies on double or reinforced insulation – Pre-defined communication parameters and general application objects*

IEC TS 61851-3-6, *Electric vehicles conductive charging system – Part 3-6: DC EV supply equipment where protection relies on double or reinforced insulation – Voltage converter unit communication*

IEC TS 61851-3-7, *Electric vehicles conductive charging system – Part 3-7: DC EV supply equipment where protection relies on double or reinforced insulation – Battery system communication*

ELECTRIC VEHICLES CONDUCTIVE CHARGING SYSTEM –

Part 3-7: DC EV supply equipment where protection relies on double or reinforced insulation – Battery system communication

1 Scope

This part of IEC 61851, which is a Technical Specification, applies to CANopen communication for the conductive transfer of electric power between the supply network and an electric road vehicle or a removable RESS or traction-battery of an electric road vehicle.

This document specifies application objects provided by the battery system.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

IEC TS 61851-3-4:2023 *Electric vehicles conductive charging system – DC EV supply equipment where protection relies on double or reinforced insulation – General definitions and requirements for CANopen communication*

IEC TS 61851-3-5:2023 *Electric vehicles conductive charging system – Part 3-5: DC EV supply equipment where protection relies on double or reinforced insulation – Pre-defined communication parameters and general application objects*

EN 50325-4:2002, *Industrial communications subsystem based on ISO 11898 (CAN) for controller- device interfaces – Part 4: CANopen*

EN 50604-1:2016, *Secondary lithium batteries for light EV (electric vehicle) applications – Part 1: General safety requirements and test methods*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in IEC TS 61851-3-4 apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- IEC Electropedia: available at http://www.electropedia.org/
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