NATIONAL STANDARD OF THE

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In-cable control and protection device for mode 2 charging of electric road vehicles (IC-CPD)

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Foreword

This document is drafted in accordance with GB/T 1.1-2020 "Directives for standardization - Part 1.Rules for the structure and drafting of standardizing documents".

This document modifies and adopts IEC 62752.2018 "In-cable control and protection device for mode 2 charging of electric road vehicles (IC-CPD)".

Compared with IEC 62752.2018, this document has made the following structural adjustments.

- 4.1 corresponds to 4.1.2 in IEC 62752.2018.Delete 4.1.1, 4.1.3, and 4.1.4;

- 4.6 corresponds to 4.6.1 in IEC 62752.2018.Delete 4.6.2 and 4.6.3.

The technical differences between this document and IEC 62752.2018 and their reasons are as follows.

- Use normatively-referenced GB/T 2099.1-2021 to replace IEC 60884-1.2013.The degree of consistency between the two documents is MOD, to adapt to the technical conditions of China and increase operability (see Clause 1, Table 4, 8.1, 8.3.1, 8.4.3, 8.5.2, 9.2, 9.9.3, 9.20, 9.21, 9.23, 9.34.1, A.1);

- Use normatively-referenced GB/T 1043.1 to replace ISO 179-1, to adapt to the

technical conditions of China and increase operability (see 9.31);

- Use normatively-referenced GB/T 2423.1 to replace IEC 60068-2-1, to adapt to the technical conditions of China and increase operability (see 9.35);
- Use normatively-referenced GB/T 2423.4 to replace IEC 60068-2-30, to adapt to the technical conditions of China and increase operability (see 9.17.1.1, 9.17.1.4, 9.32.1, 9.32.2);
- Use normatively-referenced GB/T 2423.5 to replace IEC 60068-2-27, to adapt to the technical conditions of China and increase operability (see 9.36);
- Use normatively-referenced GB/T 2423.7 to replace IEC 60068-2-31, to adapt to the technical conditions of China and increase operability (see 9.10.2);
- Use normatively-referenced GB/T 2423.17 to replace IEC 60068-2-11, to adapt to the technical conditions of China and increase operability (see 9.32.1 and 9.32.2);
- Use normatively-referenced GB/T 2423.24 to replace IEC 60068-2-5, to adapt to the technical conditions of China and increase operability (see 9.30);
- Use normatively-referenced GB/T 2423.56 to replace IEC 60068-2-64, to adapt to the technical conditions of China and increase operability (see 9.36);
- Use normatively-referenced GB/T 2424.2 to replace IEC 60068-3-4, to adapt to the technical conditions of China and increase operability (see 9.17.1.1, 9.17.1.2, 9.17.1.4);
- Use normatively-referenced GB/T 4207 to replace IEC 60112, to adapt to the technical conditions of China and increase operability (see Table 6 and 9.19);
- Use normatively-referenced GB/T 4208-2017 to replace IEC 60529.1989, to adapt to the technical conditions of China and increase operability (see 8.1 and 8.5.3);
- Use normatively-referenced GB 4343.1 to replace CISPR 14-1, to adapt to the technical conditions of China and increase operability (see 9.26 and Table A.1);
- Use normatively-referenced GB/T 5013 (all parts) to replace IEC 60245 (all parts), to adapt to the technical conditions of China and increase operability (see 8.3.11.2);
- Use normatively-referenced GB/T 5023 (all parts) to replace IEC 60227 (all parts),

to adapt to the technical conditions of China and increase operability (see 8.3.11.2);

- Use normatively-referenced GB/T 5169.10 to replace IEC 60695-2-10, to adapt to the technical conditions of China and increase operability (see 9.12);
- Use normatively-referenced GB/T 5169.11 to replace IEC 60695-2-11, to adapt to the technical conditions of China and increase operability (see 9.12);
- Use normatively-referenced GB/T 6346.14 to replace IEC 60384-14, to adapt to the technical conditions of China and increase operability (see 9.28.2);
- Use normatively-referenced GB 8898 to replace IEC 60065, to adapt to the technical conditions of China and increase operability (see 9.28.3);
- Use normatively-referenced GB/T 9286 to replace ISO 2409, to adapt to the technical conditions of China and increase operability (see 9.31);
- Use normatively-referenced GB/T 9341 to replace ISO 178, to adapt to the technical conditions of China and increase operability (see 9.31);
- Use normatively-referenced GB/T 11918 (all parts) to replace IEC 60309 (all parts), to adapt to the technical conditions of China and increase operability (see 8.2.1);
- Use normatively-referenced GB/T 11918.1-2014 to replace IEC 60309-1.2012. The degree of consistency between the two documents is MOD, to adapt to the technical conditions of China and increase operability (see 8.2.1 and 8.2.3);
- Use normatively-referenced GB/T 16935.3 to replace IEC 60664-3, to adapt to the technical conditions of China and increase operability (see 9.27.3);
- Use normatively-referenced GB/T 28046.5-2013 to replace ISO 16750-5.2010. The degree of consistency between the two documents is MOD, to adapt to the technical conditions of China and increase operability (see 9.29);
- Use normatively-referenced GB/T 30789.3 to replace ISO 4628-3, to adapt to the technical conditions of China and increase operability (see 9.32.3);
- Types, basic parameters and dimensions of plugs and socket-outlets are in accordance with the requirements of GB/T 1002 (see Clause 1). Types and dimensions of vehicle connector are in accordance with the requirements of GB/T

20234.1-2015 and GB/T 20234.2-2015 (see 8.1, 8.4.3, 8.5.4, 9.2, A.1);

- Delete the requirements for plugs for industrial purposes (see Clause 1, 7.1, 8.1, 8.4.3, 8.5.2, 9.2, 9.34.1 of IEC 62752.2018);

- Delete the types and requirements of two-phase and three-phase products (see Clause 1, 3.3.3.12, 3.3.3.13, 3.3.3.15, 3.3.3.16, 4.1, 5.3.2, 9.2, 9.6.2, 9.7.7.1, 9.7.7.2, 9.7.7.3, 9.7.11, 9.7.12, and Annex D of IEC 62752.2018);

- Delete the types and requirements of products with rated current above 16A (see Clause 1, 5.3.2, 8.3.11.2, 9.9.2.1, and 9.24 of IEC 62752.2018);

- Delete the classification and relevant requirements of wall mounted IC-CPD (see 4.6.2, 4.6.3, 8.5.3, 9.10.1, 9.10.5, and 9.34.1 of IEC 62752.2018);

- Consistent with GB/T 18487.1, change the upper limit of ambient temperature in this document from "45 degrees C" to "50 degrees C" (see 7.1, 9.7.3.7, 9.17.2);

- Delete the performance of IC-CPD when plugged into incompatible power system (see 9.7.7.4 of IEC 62752.2018).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. The issuing authority of this document shall not be held responsible for identifying any or all such patent rights.

This document was proposed by China Electrical Equipment Industry Association.

This document shall be under the jurisdiction of National Technical Committee 189 on Low-voltage Apparatus of Standardization Administration of China (SAC/TC 189).

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