



NSAI
Standards

Irish Standard
I.S. EN 50620:2017

Electric cables - Charging cables for electric vehicles

I.S. EN 50620:2017

Incorporating amendments/corrigenda/National Annexes issued since publication:

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I.S. xxx: Irish Standard — national specification based on the consensus of an expert panel and subject to public consultation.

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This document is based on:

EN 50620:2017

Published:

2017-05-12

This document was published under the authority of the NSAI and comes into effect on:

2017-05-30

ICS number:

NOTE: If blank see CEN/CENELEC cover page

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National Foreword

I.S. EN 50620:2017 is the adopted Irish version of the European Document EN 50620:2017, Electric cables - Charging cables for electric vehicles

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EUROPEAN STANDARD

EN 50620

NORME EUROPÉENNE

EUROPÄISCHE NORM

May 2017

ICS 29.060.20

English Version

Electric cables - Charging cables for electric vehicles (BT(DE/NOT)259)

Câbles électriques - Câbles de charge pour véhicules
électriques
(BT(DE/NOT)259)

Kabel und Leitungen - Ladeleitung für Elektrofahrzeuge
(BT(DE/NOT)259)

This European Standard was approved by CENELEC on 2016-06-27. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CENELEC member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CENELEC member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

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European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

EN 50620:2017 (E)

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EN 50620:2017 (E)

European foreword

This document (EN 50620:2017) has been prepared by CLC/TC 20, Electric cables.

The following dates are fixed:

- latest date by which this document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2017-11-12
- latest date by which the national standards conflicting with this document have to be withdrawn (dow) 2020-05-12

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This document has been prepared under a mandate given to CENELEC by the European Commission and the European Free Trade Association.

1 Scope

This standard specifies design, dimensions and test requirements for halogen-free cables with extruded insulation and sheath having a voltage rating of up to and including 450/750 V for flexible applications under severe condition for the power supply between the electricity supply point or the charging station and the electric vehicle (EV).

The EV charging cable is intended to supply power and if needed communication (details see EN 61851-1 and the EN 62196 series) to an electric vehicle. The charging cables are applicable for charging modes 1-3 of EN 61851-1. The cables in this standard with rated voltage 300/500 V are only permitted for charging mode 1 of EN 61851-1.

The maximum conductor operating temperatures for the cables in this standard is 90 °C.

The cables may be:

- a) an integral part of the vehicle (case A of EN 61851-1); or
- b) a detachable cable assembly with a vehicle connector and AC supply connection to a socket outlet (case B of EN 61851-1); or
- c) permanently attached to a fixed charging point (case C of EN 61851-1).

This standard describes cables whose safety and reliability is ensured when they are installed and/or used in accordance to the guide to use EN 50565-1 and Annex B.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 228, *Automotive fuels — Unleaded petrol — Requirements and test methods*

EN 590, *Automotive fuels — Diesel — Requirements and test methods*

EN 50289-1-5:2001, *Communication cables — Specifications for test methods — Part 1-5: Electrical test methods - Capacitance*

EN 50289-4-17, *Communication cables — Specifications for test methods — Part 4-17: Test methods for UV resistance evaluation of the sheath of electrical and optical fibre cable*

EN 50334, *Marking by inscription for the identification of cores of electric cables*

EN 50395:2005, *Electrical test methods for low voltage energy cables*

EN 50396:2005, *Non electrical test methods for low voltage energy cables*

EN 50525-1:2011, *Electric cables — Low voltage energy cables of rated voltages up to and including 450/750 V (U0/U) — Part 1: General requirements*

EN 60228, *Conductors of insulated cables (IEC 60228)*

EN 60332-1-2:2004/A1:2015, *Tests on electric and optical fibre cables under fire conditions — Part 1-2: Test for vertical flame propagation for a single insulated wire or cable — Procedure for 1 kW pre-mixed flame (IEC 60332-1-2:2004/A1:2015)*

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