



**NSAI**  
Standards

Irish Standard Recommendation  
S.R. HD 629-1-S3:2019

Test requirements for accessories for use on power cables of rated voltage from 3,6/6(7,2) kV up to 20,8/36(42) kV - Part 1: Accessories for cables with extruded insulation

S.R. HD 629-1-S3:2019

*Incorporating amendments/corrigenda/National Annexes issued since publication:*

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NSAI  
1 Swift Square,  
Northwood, Santry  
Dublin 9

T +353 1 807 3800  
F +353 1 807 3838  
E standards@nsai.ie  
W NSAI.ie

Sales:  
T +353 1 857 6730  
F +353 1 857 6729  
W standards.ie

Údarás um Chaighdeáin Náisiúnta na hÉireann

## National Foreword

S.R. HD 629-1-S3:2019 is the adopted Irish version of the European Document HD 629-1-S3:2019, Test requirements for accessories for use on power cables of rated voltage from 3,6/6(7,2) kV up to 20,8/36(42) kV - Part 1: Accessories for cables with extruded insulation

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HARMONIZATION DOCUMENT

**HD 629-1-S3**

DOCUMENT D'HARMONISATION

HARMONISIERUNGSDOKUMENT

March 2019

ICS 29.060.20

Supersedes HD 629.1 S2:2006

English Version

**Test requirements for accessories for use on power cables of  
rated voltage from 3,6/6(7,2) kV up to 20,8/36(42) kV - Part 1:  
Accessories for cables with extruded insulation**

Prescriptions relatives aux essais des accessoires des  
câbles d'énergie pour des tensions assignées de  
3,6/6(7,2) kV à 20,8/36(42) kV - Partie 1: Accessoires pour  
câbles à isolation extrudée

Prüfanforderungen für Kabelgarnituren für Starkstromkabel  
mit einer Nennspannung von 3,6/6(7,2) kV bis  
20,8/36(42) kV - Teil 1: Garnituren für Kabel mit extrudierter  
Kunststoffisolierung

This Harmonization Document was approved by CENELEC on 2019-02-06. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for implementation of this Harmonization Document at national level.

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

This Harmonization Document exists in three official versions (English, French, German).

CENELEC members are the national electrotechnical committees of Austria, Belgium, Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.



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

**CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels**

HD 629.1 S3:2019 (E)

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## **European foreword**

This document (HD 629.1 S3:2019) 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) 2020-02-06
- latest date by which the national standards conflicting with this document have to be withdrawn (dow) 2022-02-06

This document supersedes HD 629.1 S2:2006 and its amendment A1:2008.

This Harmonization Document has been written as part of a series of standards to satisfy the Public Procurement Directive, and is complementary to HD 620, which covers extruded insulation power cables from 3,6/6(7,2) kV to 20,8/36(42) kV, inclusive.

This standard defines the requirements, which may be called up for joints, stop ends, separable connectors, indoor and outdoor terminations when used with extruded insulation power cables covered by HD 620. The equivalent requirements for paper-insulated power cables are given in HD 629.2.

The test methods for these accessories are given in EN 61442:2005.

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

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## 1 Scope

### 1.1 General

This document specifies performance requirements for type tests for cable accessories for use on extruded insulation power cables as specified in HD 620 or other relevant cable standards.

Once type test for an accessory is successfully completed, it is not necessary to repeat the test, unless changes are made in the materials, design or manufacturing process, which might affect the performance characteristics.

Possible extra thermo-mechanical forces due to high current loads from renewable sources of power generation are not covered by these tests (under consideration).

Accessories for special applications such as submarine cables, ship cables or hazardous situations (explosive environments, fire resistant cables or seismic conditions) are not included.

Test methods are included in EN 61442:2005.

NOTE 1: This European Standard does not invalidate existing approvals of products achieved on the basis of national standards and specifications and/or the demonstration of satisfactory service performance. However, products approved according to such national standards or specifications cannot directly claim approval to this European standard.

NOTE 2: It may be possible, subject to agreement between supplier and purchaser, and/or the relevant conformity assessment body, to demonstrate that conformity to the earlier standard can be used to claim conformity to this European Standard, provided an assessment is made of any additional type testing that may need to be carried out. Any such additional testing that is part of a sequence of testing cannot be done separately.

### 1.2 Type of accessories

The accessories covered by this standard are listed below:

- a) indoor and outdoor terminations of all designs, including terminal boxes;
- b) straight-joints, branch-joints, stop ends and loop joints of all designs, suitable for use underground, indoors or outdoors;

NOTE 1 Tests specific for UV and outdoor weather resistance are not included.

- c) screened or unscreened plug-in type or bolted-type separable connectors, capable of interfacing with bushing profiles as specified in EN 50180 and EN 50181.

NOTE 2 Joints connecting extruded insulation cables (HD 620) to paper insulated cables (HD 621) are not included. The requirements for these accessories are dealt with in HD 629.2.

### 1.3 Rated voltage

The rated voltages  $U_0/U$  ( $U_m$ ) of the accessories covered by this standard are 3,6/6(7,2) - 3,8/6,6(7,2) - 6/10(12) - 6,35/11(12) - 8,7/15(17,5) - 12/20(24) - 12,7/22(24) - 18/30(36) - 19/33(36) - 20,8/36(42) kV where:

$U_0$  is the rated power-frequency voltage between conductor and earth or metallic screen, for which the cable accessory is designed;

$U$  is the rated power-frequency voltage between conductors for which the cable accessory is designed;

$U_m$  is the maximum value of the 'highest system voltage' for which the cable accessory is designed.

### 1.4 Current

The continuous current rating of a termination or joint for extruded insulation power cables is in accordance with the appropriate cable specified in HD 620 or other relevant cable standards and is suitable for operation at the rated current and under short circuit fault conditions at the temperatures stated therein.

The current rating of a separable connector is governed by the current rating of the mating bushing (see EN 50180 and EN 50181).

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