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Kraftkablar – PEX-isolerad kabel och tillbehör med märkspänning 30/52 kV till 98/170 kV – Provning

Power cables –

XLPE-insulated cables and their accessories for rated voltages 30/52 kV to 98/170 kV –

Specifications for testing

Som svensk standard för provning av kraftkablar och tillbehör med märkspänning 30/52 kV till 98/170 kV gäller följande av CENELEC utarbetade HD-dokument:

HD 632 S3:2016 Power cables with extruded insulation and their accessories for rated voltages above 36 kV ($U_m = 42$ kV) up to 150 kV ($U_m = 170$ kV), part 1, part 3 section M, part 4 section M and part 5 section M.

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Följande delar av CENELEC HD 632 S3:2016 ingår i denna standard.

- Part 1 General test requirements
- Part 3 Test requirements for cables with XLPE insulation and metallic screen and their accessories
 - 3-M Cables with XLPE insulation, copper screen and their accessories
- Part 4 Test requirements for cables with XLPE insulation, metallic screen and metal-laminated sheath and their accessories
 - 4-M Cables with XLPE insulation, copper screen and aluminium-laminated sheath and their accessories
- Part 5 Test requirements for cables with XLPE insulation and metallic sheath and their accessories
 - 5-M Cables with XLPE insulation and metallic sheath and their accessories

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1 Scope

This Part 1 of HD 632 specifies test methods and requirements for power cable systems, cables alone and accessories alone, for fixed installations and for rated voltages above 36 kV ($U_m = 42$ kV) up to and including 150 kV ($U_m = 170$ kV).

Depending on the design and the system conditions, additional or even fewer tests or other requirements which are not described in the Part 1 can be specified in the particular sections of Parts 3 to 11.

In these parts each section is either:

- 1) A full tabulation showing how the particular section either agrees, or deviates from, each clause of Part 1; or
- 2) A reduced tabulation showing only those places where the particular section deviates from Part 1.

The requirements apply to single-core cables and to individually screened three-core cables and to their accessories for usual conditions of installation and operation, but not to special cables and their accessories, such as submarine cables, for which modifications to the standard tests may be necessary or special test conditions may need to be devised.

This standard does not cover transition joints between cables with extruded insulation and paper insulated cables.

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

EN 60229:2008, *Electric cables – Tests on extruded oversheaths with a special protective function (IEC 60229:2007)*

EN 60230, *Impulse tests on cables and their accessories (IEC 60230)*

EN 60332-1-2, *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)*

EN 60811 (all parts), *Electric and optical fibre cables – Test methods for non-metallic materials (IEC 60811, all parts)*

EN 60885-3, *Electrical test methods for electric cables – Part 3: Test methods for partial discharge measurements on lengths of extruded power cables (IEC 60885-3)*

HD 588.1, *High voltage test techniques – Part 1: General definitions and test requirements (IEC 60060-1)*

IEC 60183, *Guidance for the selection of high-voltage A.C. cable systems*

IEC 60287-1-1:2006, *Electric cables – Calculation of the current rating – Part 1-1: Current rating equations (100 % load factor) and calculation of losses – General*

ISO 48, *Rubber, vulcanized or thermoplastic – Determination of hardness (hardness between 10 IRHD and 100 IRHD)*