IEC 60840

Edition 5.0 2023-06

INTERNATIONAL STANDARD

AMENDMENT 1

Power cables with extruded insulation and their accessories for rated voltages above 30 kV (U_m = 36 kV) up to 150 kV (U_m = 170 kV) – Test methods and requirements



IEC 60840:2020-05/AMD1:2023-06(en)



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POWER CABLES WITH EXTRUDED INSULATION AND THEIR ACCESSORIES FOR RATED VOLTAGES ABOVE 30 KV (U_m = 36 KV) UP TO 150 KV (U_m = 170 KV) – TEST METHODS AND REQUIREMENTS

AMENDMENT 1

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Amendment 1 to IEC 60840:2020 has been prepared by IEC technical committee 20: Electric cables.

The text of this Amendment is based on the following documents:

Draft	Report on voting
20/2100/FDIS	20/2107/RVD

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 Amendment 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 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- withdrawn,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.

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2 Normative references

Add the following new references:

IEC 60060-3, *High-voltage test techniques – Part 3: Definitions and requirements for on-site testing*

IEC 60137, *Insulated bushings for alternating voltages above 1 000 V*

IEC 60332-1-3, *Tests on electric and optical fibre cables under fire conditions – Part 1-3: Test for vertical flame propagation for a single insulated wire or cable – Procedure for determination of flaming droplets/particles*

IEC 60754-3, *Test on gases evolved during combustion of materials from cables – Part 3: Measurement of low level of halogen content by ion chromatography*

IEC 62155, *Hollow pressurized and unpressurized ceramic and glass insulators for use in electrical equipment with rated voltages greater than 1 000 V*

3 Terms and definitions

3.2.4
prequalification test

Add **"PQ test"** *as a second preferred term.*

3.2.5
extension of prequalification test

Add **"EQ test"** *as a second preferred term.*

3.3.2
nominal electrical stress

In the existing Note 2 to entry, delete "Nominal".

3.3.8
joint with screen or metal sheath interruption

Replace the existing entry 3.3.8 with the following new entry 3.3.8:

3.3.8
maximum service pressure
MSP
highest difference between the maximum absolute internal pressure, when the equipment (of which a composite hollow insulator is a part) is carrying its rated normal current at maximum operational temperature and the normal outside pressure

Insert, between the existing entry 3.3.9 and entry 3.3.10 the following new entry 3.3.11:

3.3.11
joint with screen or metal sheath interruption
joint, where the metal screen/sheath and insulation screen of the cable are electrically interrupted

3.3.10
termination with sectionalizing insulation

Replace the existing entry 3.3.10 with the following new entry 3.3.10:

3.3.10
termination with an insulated screen
termination where the metal screen/sheath and insulation screen of the cable are electrically interrupted to the ground

5 Precautions against water penetration in cables

Replace the existing first paragraph with the following new paragraph:

When cable systems are installed in water or in the ground, in locations with a risk of water ingress or corrosion, a radial water impermeable barrier is recommended.

6 Cable characteristics

Replace the existing text of list item c), excluding the NOTE, with the following new text:

c) Fire performance: if ST_1, ST_2 or ST_{12} oversheath material is used (see 4.4 and Table 2), then the subclauses of 12.5.14.3, if any, to which compliance is claimed, shall be declared.

Add, in list item n), after "d_{ii} is the declared nominal inner diameter of the insulation, in mm;" the following new text:

U_0 is the value in item b) above in kV;