Polyvinyl chloride insulated cables of rated voltages up to and including 450/750 V –

Part 1:
General requirements

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FOREWORD

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International Standard IEC 60227-1 has been prepared by subcommittee 20B: Low-voltage cables, of IEC technical committee 20: Electric cables.


The technical content is therefore identical to the base edition and its amendments and has been prepared for user convenience.

It bears the edition number 2.2.

A vertical line shows where the base publication has been modified by amendments 1 and 2.

IEC 60227 consists of the following parts, under the general title: Polyvinyl chloride insulated cables of rated voltages up to and including 450/750 V:
Part 1: General requirements
Part 2: Test methods
Part 3: Non-sheathed cables for fixed wiring
Part 4: Sheathed cables for fixed wiring
Part 5: Flexible cables (cords)
Part 6: Lift cables and cables for flexible connections.

Part 3, Part 4, etc. are for particular types of cable and should be read in conjunction with Part 1 and Part 2. Further parts may be added as other types are standardized.

Annex A forms an integral part of this International Standard.
POLYVINYL CHLORIDE INSULATED CABLES
OF RATED VOLTAGES UP TO AND
INCLUDING 450/750 V

Part 1: General requirements

1 General

1.1 Scope

This part of International Standard IEC 60227 applies to rigid and flexible cables with insulation, and sheath if any, based on polyvinyl chloride, of rated voltages \( U_{o} / U \) up to and including 450/750 V used in power installations of nominal voltage not exceeding 450/750 V a.c.

NOTE – For some types of flexible cables the term cord is used.

The particular types of cables are specified in IEC 60227-3, IEC 60227-4, etc. The code designations of these types of cables are given in annex A.

The test methods specified in Parts 1, 3, 4, etc. are given in IEC 60227-2, IEC 60332-1 and in the relevant parts of IEC 60811.

1.2 Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions of this part of IEC 60227. At the time of publication, the editions indicated were valid. All normative documents are subject to revision and parties to agreements based on this part of IEC 60227 are encouraged to investigate the possibility of applying the most recent editions of the normative documents listed below. Members of IEC and ISO maintain registers of currently valid International Standards.

IEC 60173:1964, Colours of the cores of flexible cables and cords

IEC 60227-2:1979, Polyvinyl chloride insulated cables of rated voltage up to and including 450/750 V – Part 2: Test methods

IEC 60227-3:1979, Polyvinyl chloride insulated cables of rated voltage up to and including 450/750 V – Part 3: Non-sheathed cables for fixed wiring

IEC 60227-4:1979, Polyvinyl chloride insulated cables of rated voltage up to and including 450/750 V – Part 4: Sheathed cables for fixed wiring

IEC 60228:1978, Conductors of insulated cables

IEC 60332-1:1979, Tests on electric cables under fire conditions – Part 1: Test on a single vertical insulated wire or cable


IEC 60811-3-1:1985, *Common test methods for insulating and sheathing materials of electric cables – Part 3: Methods specific to PVC compounds – Section One: Pressure test at high temperature – Tests for resistance to cracking*

IEC 60811-3-2:1985, *Common test methods for insulating and sheathing materials of electric cables – Part 3: Methods specific to PVC compounds – Section Two: Loss of mass test – Thermal stability tests*