

JIS

JAPANESE
INDUSTRIAL
STANDARD

Translated and Published by
Japanese Standards Association

JIS C 3662-1 : 2009

(JCMA)

**Polyvinyl chloride insulated cables
of rated voltages up to and
including 450/750 V—
Part 1: General requirements**

ICS 29.060.20

Reference number : **JIS C 3662-1 : 2009 (E)**

Date of Establishment: 1998-03-20

Date of Revision: 2009-12-21

Date of Public Notice in Official Gazette: 2009-12-21

Investigated by: Japanese Industrial Standards Committee
Standards Board

Technical Committee on Electricity Technology

JIS C 3662-1:2009, First English edition published in 2010-07

Translated and published by: Japanese Standards Association
4-1-24, Akasaka, Minato-ku, Tokyo, 107-8440 JAPAN

In the event of any doubts arising as to the contents,
the original JIS is to be the final authority.

© JSA 2010

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from the publisher.

Printed in Japan

AT

Contents

	Page
Introduction.....	1
1 General.....	1
1.1 Scope.....	1
1.2 Normative references.....	1
2 Terms and definitions.....	3
2.1 Definitions relating to insulating and sheathing materials.....	3
2.2 Definitions relating to the tests.....	4
2.3 Definition relating to the rated voltage.....	4
3 Marking.....	5
3.1 Indication of manufacturer and cable identification.....	5
3.2 Durability.....	5
3.3 Legibility.....	5
4 Core identification.....	5
4.1 Core identification by colours.....	5
4.2 Core identification by numbers.....	6
5 General requirements for the construction of cables.....	7
5.1 Conductors.....	7
5.2 Insulation.....	8
5.3 Filler.....	11
5.4 Extruded inner covering.....	11
5.5 Sheath.....	12
5.6 Tests on completed cables.....	15
6 Guide to use of the cables.....	17
Annex A (normative) Code designation.....	18
Annex JA (informative) Comparison table between JIS and corresponding International Standard.....	20

Foreword

This translation has been made based on the original Japanese Industrial Standard revised by the Minister of Economy, Trade and Industry through deliberations at the Japanese Industrial Standards Committee as the result of proposal for revision of Japanese Industrial Standard submitted by The Japanese Electric Wire & Cable Makers' Association (JCMA) with the draft being attached, based on the provision of Article 12 Clause 1 of the Industrial Standardization Law applicable to the case of revision by the provision of Article 14.

Consequently, **JIS C 3662-1:2003** is replaced with this Standard.

This **JIS** document is protected by the Copyright Law.

Attention is drawn to the possibility that some parts of this Standard may conflict with a patent right, application for a patent after opening to the public, utility model right or application for registration of utility model after opening to the public which have technical properties. The relevant Minister and the Japanese Industrial Standards Committee are not responsible for identifying the patent right, application for a patent after opening to the public, utility model right or application for registration of utility model after opening to the public which have the said technical properties.

JIS C 3662 series consists of the following 7 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 7: Flexible cables screened and unscreened with two or more conductors

Polyvinyl chloride insulated cables of rated voltages up to and including 450/750 V—Part 1: General requirements

Introduction

This Japanese Industrial Standard has been prepared based on the third edition of **IEC 60227-1** published in 2007 with some modifications of the technical contents to conform to the actual situation in Japan for the voltage withstand test conditions.

The portions given dotted underlines are the matters in which the contents of the original International Standard have been modified. A list of modifications with the explanations is given in Annex JA.

1 General

1.1 Scope

This Standard specifies the rigid and flexible cables with insulation and sheath if any, based on polyvinyl chloride mainly of rated voltages U_0/U up to and including 450/750 V used in power installations of nominal voltage not exceeding 450/750 V a.c.

NOTE 1 For some types of flexible cables, the term “cord” is used.

The particular types of cables are specified in **JIS C 3662-3**, **JIS C 3662-4**, **JIS C 3662-5**, etc. The code designations of these types of cables are given in Annex A.

The test methods specified in **JIS C 3662-1**, **JIS C 3662-3**, **JIS C 3662-4**, **JIS C 3662-5**, etc. are given in **JIS C 3662-2**, **JIS C 3665-1-2** and in the relevant parts of **JIS C 3660** series.

NOTE 2 The International Standard corresponding to this Standard is as follows.

IEC 60227-1:2007 *Polyvinyl chloride insulated cables of rated voltages up to and including 450/750 V—Part 1: General requirements* (MOD)

In addition, symbols which denote the degree of correspondence in the contents between the relevant International Standard and **JIS** are IDT (identical), MOD (modified), and NEQ (not equivalent) according to **ISO/IEC Guide 21-1**.

1.2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this Standard. For standards with the year indication, only the editions of the indicated year shall be applied and any revisions (including amendments) made thereafter shall not be applied. For those without the indication of the year, the most recent edition (including amendments) shall be applied.

JIS C 3660-1-1:2003 *Common test methods for insulating and sheathing materials of electric and optical cables—Part 1-1: Methods for general application—Measurement of thickness and overall dimensions—Tests for determining the mechanical properties*