

# JIS

JAPANESE  
INDUSTRIAL  
STANDARD

Translated and Published by  
Japanese Standards Association

---

JIS C 2814-2-3 : 2009

**Connecting devices for low-voltage  
circuits for household and similar  
purposes — Part 2-3: Particular  
requirements for connecting devices as  
separate entities with insulation-piercing  
clamping units**

---

ICS 29.120.20

Reference number : JIS C 2814-2-3 : 2009 (E)

PROTECTED BY COPYRIGHT

16 S

C 2814-2-3 : 2009

Date of Establishment: 2001-03-20

Date of Revision: 2009-03-20

Date of Public Notice in Official Gazette: 2009-03-23

Investigated by: Japanese Industrial Standards Committee

Standards Board

Technical Committee on Electricity Technology

---

JIS C 2814-2-3 : 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

KK/HN

PROTECTED BY COPYRIGHT

## Contents

	Page
Introduction .....	1
1 Scope .....	1
2 Normative references .....	1
3 Terms and definitions .....	2
4 General .....	2
5 General notes on tests .....	2
6 Main characteristics .....	3
7 Classification .....	3
8 Marking .....	3
9 Protection against electric shock .....	4
10 Connection of conductors .....	4
11 Construction .....	9
12 Resistance to ageing, to humidity conditions, to ingress of solid foreign objects and to harmful ingress of water .....	10
13 Insulation resistance and electric strength .....	10
14 Mechanical strength .....	10
15 Temperature rise .....	10
16 Resistance to heat .....	13
17 Clearances and creepage distances .....	13
18 Resistance of insulating material to abnormal heat and fire .....	13
19 Resistance of insulating material to tracking .....	13
20 EMC requirements .....	13
Annexes .....	17
Annex AA (normative) Number of sets of samples to be submitted to tests .....	18
Annex BB (informative) Relationship between conductor of cross-sectional area in mm <sup>2</sup> and AWG size .....	19
Annex JC (informative) Comparison table between JIS and corresponding International Standard .....	21

## 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 based on the Industrial Standardization Law.

Consequently, JIS C 2814-2-3:2001 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 2814 series consists of the following 5 parts under the general title “*Connecting devices for low-voltage circuits for household and similar purposes*”

*Part 1: General requirements*

*Part 2-1: Particular requirements for connecting devices as separate entities with screw-type clamping units*

*Part 2-2: Particular requirements for connecting devices as separate entities with screwless-type clamping units*

*Part 2-3: Particular requirements for connecting devices as separate entities with insulation-piercing clamping units*

*Part 2-4: Particular requirements for twist-on connecting devices*

# Connecting devices for low-voltage circuits for household and similar purposes — Part 2-3 : Particular requirements for connecting devices as separate entities with insulation-piercing clamping units

## Introduction

This Japanese Industrial Standard has been prepared based on the second edition of IEC 60998-2-3 published in 2002 with some modifications of the technical contents to conform to the power distribution situation in Japan. This Standard shall be used together with JIS C 2814-1 : 2009.

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 JC.

## 1 Scope

Scope given in clause 1 of JIS C 2814-1 and the following shall apply.

This Standard applies to connecting devices with insulation-piercing clamping units primarily suitable for connecting unprepared conductors.

In the connecting operation, the insulation of the conductor is made ineffective by piercing, boring through, cutting through, removing, displacing or some other manners at the point(s) of contact.

NOTE 1 In this Standard, connecting devices with insulation-piercing clamping units are referred to as IPCDs (Insulation-Piercing Connecting Devices).

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

IEC 60998-2-3 : 2002 *Connecting devices for low-voltage circuits for household and similar purposes — Part 2-3 : Particular requirements for connecting devices as separate entities with insulation-piercing clamping units* (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.

## 2 Normative references

Normative references given in clause 2 of JIS C 2814-1 and the following shall apply.

JIS C 2814-1 : 2009 *Connecting devices for low-voltage circuits for household and*