



JAPANESE
INDUSTRIAL
STANDARD

Translated and Published by
Japanese Standards Association

☞ **JIS C 2807** : 2003
(JEMA)

Insulated closed-end connectors

ICS 29.120.20

Reference number : JIS C 2807 : 2003 (E)

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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 Japan Electrical Manufacturers' Association (JEMA) 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.

Date of Establishment: 1979-05-01

Date of Revision: 2003-06-20

Date of Public Notice in Official Gazette: 2003-06-20

Investigated by: Japanese Industrial Standards Committee

Standards Board

Technical Committee on Electricity
Technology

JIS C 2807:2003, First English edition published in 2003-10

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,
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Printed in Japan

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Insulated closed-end connectors

1 Scope This Japanese Industrial Standard specifies insulated closed-end connectors (hereafter referred to as “connectors”) which are crimped from the outer surface of connector insulation by using the connecting tool specified by the connector manufacturer (hereafter referred to as “tool”) for mutual connection of p.v.c. insulated annealed copper stranded or solid wires mainly used for internal wiring of household appliances (hereafter referred to as “wires”).

2 Normative references The following standards contain provisions which, through reference in this Standard, constitute provisions of this Standard. The most recent editions of the standards (including amendments) indicated below shall be applied.

JIS B 7507 *Vernier, dial and digital callipers*

JIS C 1302 *Insulation resistance testers*

JIS C 1602 *Thermocouples*

JIS C 2320 *Electrical insulating oils*

JIS C 3306 *Polyvinyl chloride insulated flexible cords*

JIS C 3316 *Polyvinyl chloride insulated wires for electrical apparatus*

JIS H 3100 *Copper and copper alloy sheets, plates and strips*

JIS H 3300 *Copper and copper alloy seamless pipes and tubes*

JIS H 8501 *Methods of thickness test for metallic coatings*

JIS H 8619 *Electroplated coatings of tin*

JIS K 2240 *Liquefied petroleum gases*

JIS Z 3261 *Silver brazing filler metals*

JIS Z 3264 *Copper phosphorus brazing filler metals*

JIS Z 8703 *Standard atmospheric conditions for testing*

JIS Z 8704 *Temperature measurement—Electrical methods*

3 Classification, symbol and nominal size The classification, symbol and nominal size shall be as given in Table 1.

Table 1 Classification, symbol and nominal size

Classification	Symbol	Nominal size
Insulated closed-end connectors	CE	Refer to Attached Table 1.

4 Performances

4.1 Secureness of crimped connection When the test is carried out in accordance with 7.5, the specimen shall be free from breakage of insulation, cracking of conductor, peel off of brazed part, if brazed, and other trouble detrimental to use.

4.2 Temperature rise When the test of 7.6 is carried out, the temperature rise of crimped connection (hereafter referred to as “crimping zone”) shall be not more than 20 K.

4.3 Cyclic overcurrent After the specimen is confirmed for the performance of 4.2, it is subjected to the test of 7.7 and then the test of 7.6, the temperature rise at the end of such tests shall be not more than 30 K.

4.4 Tensile strength When the test of 7.8 is carried out, no slip, break of wire, come off of wire or other trouble detrimental to use shall occur at the crimped zone of connector conductor and wire.

4.5 Insulation resistance When the test of 7.9 is carried out, the insulation resistance between the surface of insulation and the live part shall be not less than 50 MΩ.

4.6 Dielectric withstand voltage When a specimen is tested in accordance with 7.10, the specimen shall withstand the test voltage.

4.7 Resistance to aging When a specimen is tested in accordance with 7.11, the specimen shall show no cracking, split, internal blister or other trouble detrimental to use and shall comply with the provision of 4.6.

4.8 Secureness of insulation When the test of 7.12 is carried out, the insulation shall not fall down.

4.9 Flame retardance When the test of 7.13 is carried out, the flame remaining time at each operation shall be not more than 15 s and the total sum of flame remaining times shall not exceed 30 s.

4.10 Resistance to oil When the test of 7.14 is carried out, the insulation shall show no cracking, split, internal blister or other trouble detrimental to use, and shall meet the provision of 4.6.

4.11 Resistance to change of temperature When the test of 7.15 is carried out, the connector shall show no cracking, split, internal blister or other trouble detrimental to use and shall meet the provision of 4.6.

5 Appearance, dimensions and metallic coating The appearance, dimensions and metallic coating shall comply with the following requirements:

- a) Connectors shall be free from scratch, rust, fissure, crack and other trouble detrimental to use.
- b) Connectors shall comply with the dimensions given in Attached Table 1.
- c) The thickness of metallic coating of connectors shall be at least 1 μm, when the test of 7.4 is carried out.