

JIS

JAPANESE INDUSTRIAL STANDARD

Hard-drawn copper stranded conductors

JIS C 3105—1994

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**In the event of any doubt arising,
the original Standard in Japanese is to be final authority.**

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Hard-drawn copper stranded conductors

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1. **Scope** This Japanese Industrial Standard specifies hard-drawn copper stranded conductors to be used for overhead transmission lines, distribution lines and other electrical purposes (hereafter referred to as "stranded conductors").

Remarks 1. The following standards are cited in this Standard:

JIS C 3002 Testing methods of electrical copper and aluminium wires

JIS C 3101 Hard-drawn copper wires for electrical purposes

2. In this Standard, the units and numerical values in { } are based on traditional units and are appended for informative reference.

2. **Classification and symbols** The classification and symbols of the stranded conductors shall be as given in Table 1.

Table 1. Classification and symbols

Class	Symbol	Remarks
Class 1 stranded conductors	H	For general use
Class 2 stranded conductors	PH	For overhead transmission line

3. **Characteristics** The characteristics of the stranded conductors shall be as given in Attached Tables 1 and 2, when the tests are made as specified in 7.

4. **Size** The sizes of the stranded conductors shall be expressed by the nominal sectional area and the composition of stranded conductor shall be as given in Attached Table 1 for Class 1 stranded conductors and in Attached Table 2 for Class 2 stranded conductors.

5. **Appearance** The stranded conductors shall have smooth surface, and shall be free from flaws, rust, cracks, loose strands, and any other defects harmful to their practical use.

6. **Materials and manufacturing methods**

6.1 **Component wires** The component wires of the stranded conductors shall be in accordance with JIS C 3101 before stranding.

6.2 **Lay** The lay of the stranded conductors shall be made by concentrically stranding the component wires uniformly and tightly. The direction of lay shall be reversed in each successive layer and shall be S lay in the outermost layer.

The lay ratio in the outermost layer shall be not more than 20 times the pitch circle diameter of that layer.