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**Instrument transformers
for testing purpose and
used with general instrument
Part 1 : Current transformers**

ICS 17.220.20

Descriptors : instrument transformers, current transformers, transformers

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Foreword

This translation has been made based on the original Japanese Industrial Standard established by the Minister of International Trade and Industry through deliberations at the Japanese Industrial Standards Committee in accordance with the Industrial Standardization Law. By this establishment **JIS C 1731 : 1988** is withdrawn and replaced by this Standard.

Constitution of Standard

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JIS C 1731-2 *Instrument transformers for testing purpose and used with general instrument Part 2 : Voltage transformers*

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

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Instrument transformers for testing purpose and used with general instrument

Part 1 : Current transformers

Introduction This Japanese Industrial Standard specifies current transformers of the instrument transformers formerly specified in **JIS**, in the text, while the items stated in the corresponding International Standard **IEC 60044-1**, *Instrument transformers—Part 1 : Current transformers* published in 1996 as the first edition are adopted in Annex 1 (normative) without any modification in the technical contents.

1 Scope This Standard specifies newly manufactured current transformers for testing purpose and used with general instruments which serve within power frequency range.

2 Definitions For the purpose of this Standard, the following principal definitions apply:

- a) **instrument transformer** This is an equipment for transformation of current or voltage used with electric instrument(s) or measuring device(s). This is the generic name of current transformers and voltage transformers.
- b) **current transformer** An instrument transformer in which the primary current is transformed to the secondary current which is proportional to the former.
- c) **primary winding** The winding through which flows the current to be transformed.
- d) **secondary winding** The winding which supplies the current to electrical instrument(s) or measuring device(s).
- e) **secondary circuit** The external circuit which passes the current supplied by the secondary winding of a current transformer.
- f) **highest voltage for equipment** The highest circuit voltage which will occur normally, at which the performances specified in this Standard are ensured under the specified conditions and which is stated on the rating plate.
- g) **rated current of a current transformer** The value of the primary or secondary current on which the performance of the transformer as specified in this Standard is based under the specified conditions and which is stated on the rating plate.
- h) **actual transformation ratio** The ratio of the current actually passed through the primary winding to the current supplied by the secondary winding, which is obtained by the measurement.
- i) **rated transformation ratio** The ratio of the rated primary current to the rated secondary current.
- j) **current error (ratio error)** The error which arises from the fact that the actual transformation ratio is not equal to the rated transformation ratio and the value is expressed by the following equation: