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CURRENT TRANSFORMERS

Australian Standard 1675–1974

CURRENT TRANSFORMERS FOR MEASUREMENT AND PROTECTION

METRIC UNITS

STANDARDS ASSOCIATION OF AUSTRALIA
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THE FOLLOWING SCIENTIFIC, INDUSTRIAL AND GOVERNMENTAL organizations and departments were officially represented on the committee entrusted with the preparation of this standard:

Australian and New Zealand Railways Conferences

Australian British Trade Association

Australian Electrical Manufacturers Association

Electricity Supply Association of Australia

National Measurement Laboratory, CSIRO

Testing Laboratories of the State Electricity Commission of Victoria

Testing Laboratories of the Sydney County Council

This standard, prepared by Committee EL/13, Measurement and Protection Transformers, was approved on behalf of the Council of the Standards Association of Australia on 26 July 1974.

The specification is intended to include the technical provisions necessary for the supply of the material herein referred to, but does not purport to comprise all the necessary provisions of a contract.

In order to keep abreast of progress in industry, Australian standards are regularly reviewed. Suggestions for improvements to published standards are welcomed, and should be addressed to the head office of the Association, Sydney.

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AUSTRALIAN STANDARD SPECIFICATION

CURRENT TRANSFORMERS FOR MEASUREMENT AND PROTECTION

AS 1675 — 1974

First published (as C388)	1968
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PREFACE

This standard was prepared by Committee EL/13, Measurement and Protection Transformers, as a revision in metric units of AS C388 which it accordingly supersedes.

The standard is in three parts covering respectively, the requirements for all current transformers, additional requirements for measurement current transformers including extended range measurement current transformers, and additional requirements for protection current transformers.

In the preparation of this standard, consideration was given to IEC Publication 185, Current Transformers. Acknowledgement is made of the assistance received therefrom.

This standard differs substantially from the IEC recommendation with respect to measurement current transformers since while the IEC method of designation and classification is used, the power factor of the burdens, limits of error and test conditions specified herein are quite different to those given in the IEC recommendation. The requirements for protection current transformers although similar to the IEC recommendation, have designations which are completely different to those given in the IEC recommendation. Furthermore the requirement for the induced high voltage secondary winding insulation test is more arduous.

It should be noted that the accuracy of current transformers may be expressed in three ways, namely—

(i) current error (see Definition 1.3.6) for measurement current transformers;

(ii) composite error (see Definition 1.3.5 and Appendix B) for class P protection current transformers; and

(iii) secondary exciting current at knee-point voltage (see Clause 13.2.2) for class PL protection current transformers.

A section on extended range current transformers has been included because of the increased use of this class of measurement current transformer in the revenue metering field.

This standard requires reference to the following Australian standards:

AS 1018	Recommendations for Partial Discharge Measurements
AS 1024	Direct-recording Electrical Measuring Instruments and Their Accessories
AS 1042	Direct-acting Indicating Electrical Measuring Instruments and Their Accessories
AS 1265	Bushings for Alternating Voltages above 1000 V
AS 1279	Refined Copper
AS 1284	Electricity Meters
AS C62	Insulating Oil for Transformers and Switchgear
AS C89	Oil Circuit-breakers for Alternating Current Systems
AS C328	High Voltage Testing Techniques
AS C337	Insulation Coordination

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