AS 2900.5—2002
ISO 31-5:1992/Amd.1:1998

Australian Standard™

Quantities and units

Part 5: Electricity and magnetism

Standards Australia

This Australian Standard was prepared by Committee ME-071, Quantities, Units and Conversions. It was approved on behalf of the Council of Standards Australia on 21 June 2002 and published on 5 August 2002.

The following are represented on Committee ME-071:

CSIRO, Telecommunications and Industrial Physics

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Part 5: Electricity and magnetism

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PREFACE

This Standard was prepared by the Standards Australia Committee ME-071, *Quantities, Units and Conversions*, to supersede AS 2900.5—1986, *Quantities, units, and symbols*, Part 5: *Quantities and units of electricity and magnetism*.

This Standard is identical with, and has been reproduced from, ISO 31-5:1992/Amd.1:1998, *Quantities and units*, Part 5*: Electricity and magnetism*.

The amendment to ISO 31-5:1992 is included in this document and is shown by a bar line set against the affected text.

The objective of this Standard is to provide users with names and symbols for quantities and units of electricity and magnetism.

Users of this Standard are advised by Standards Australia, under arrangements with ISO and IEC, as well as certain other Standards organizations, that the number of this Standard is not reproduced on each page; its identity is shown only on the cover and title pages.

For the purpose of this Standard, the ISO text should be modified as follows:

(a) *Terminology* The words 'this Australian Standard' should replace the words 'this International Standard' wherever they appear.

(b) *Decimal marker* Substitute a full point for a comma where it appears as a decimal marker.

(c) *References* The reference to the International Standards should be replaced by reference to the following Australian Standard:

Reference to International Standard or other Publication		*Australian Standard*	
IEC		AS	
27	Letter symbols to be used in electrical technology	1046	Letter symbols for use in electrotechnology
27-1	Part 1: General	1046.1	Part 1: General

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INTRODUCTION

0.1 Arrangement of the tables

The tables of quantities and units in ISO 31 are arranged so that the quantities are presented on the left-hand pages and the units on the corresponding right-hand pages.

All units between two full lines belong to the quantities between the corresponding full lines on the left-hand pages.

Where the numbering of an item has been changed in the revision of a part of ISO 31, or in the revision of IEC 27-1, the number in the preceding edition is shown in parentheses on the left-hand page under the new number for the quantity; a dash is used to indicate that the item in question did not appear in the preceding edition.

0.2 Tables of quantities

The most important quantities within the field of this document are given together with their symbols and, in most cases, definitions. These definitions are given merely for identification; they are not intended to be complete.

The vectorial character of some quantities is pointed out, especially when this is needed for the definitions, but no attempt is made to be complete or consistent.

In most cases only one name and only one symbol for the quantity are given; where two or more names or two or more symbols are given for one quantity and no special distinction is made, they are on an equal footing. When two types of italic (sloping) letter exist (for example as with ϑ, θ; φ, ϕ; g, g) only one of these is given. This does not mean that the other is not equally acceptable. In general it is recommended that such variants should not be given different meanings. A symbol within parentheses implies that it is a "reserve symbol", to be used when, in a particular context, the main symbol is in use with a different meaning.

0.3 Tables of units

0.3.1 General

Units for the corresponding quantities are given together with the international symbols and the definitions. For further information, see ISO 31-0.

The units are arranged in the following way:

a) The names of the SI units are given in large print (larger than text size). The SI units have been adopted by the General Conference on Weights and Measures (Conference Générale des Poids et Mesures, CGPM).