

Australian Standard<sup>®</sup>

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**Electricity metering**

**Part 7: Internal clocks for  
meters and load control devices**

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[Defence Title allocated by Codification and Standardisation Authority:  
CLOCKS USED IN FUNCTION CONTROL DEVICES  
NATO Supply Classification 6625]

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The following interests are represented on Committee EL/11:

- Australian Chamber of Commerce and Industry
  - Australian Electrical and Electronic Manufacturers Association
  - Electricity Supply Association of Australia
  - National Standards Commission
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## PREFACE

This Standard was prepared by the Standards Australia Committee on Electricity Metering Equipment. It is based on part of IEC 1038, *Time switches for tariff and load control*.

This Standard is Part 7 of AS 1284, *Electricity Metering*, which is published in Parts as follows:

- Part 1: General purpose induction watthour meters
- Part 2: Portable alternating current rotating standard watthour meters
- Part 3: Induction watthour meters—Energy demand type
- Part 4: Socket mounting system
- Part 5: General purpose electronic watthour meters
- Part 6: Ripple control receivers for tariff and load control
- Part 7: Internal clocks for meters and load control devices (*this Standard*)
- Part 9: Electronic watthour meters (Classes 0.2 S and 0.5 S)
- Part 10.1: Data exchange for meter reading, tariff and load control—Direct local data exchange via hand-held unit (HHU)—IEC Standard interface
- Part 10.2: Data exchange for meter reading, tariff and load control—Direct local data exchange via hand-held unit (HHU)—ANSI Standard interface

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## STANDARDS AUSTRALIA

### Australian Standard

### Electricity metering

#### Part 7: Internal clocks for meters and load control devices

### 1 SCOPE AND APPLICATION

**1.1 Scope** This Standard specifies timing requirements for internal clocks of electronic meters, registers, ripple control receivers and other load control devices. It is envisaged that the clock will be an electronic device.

This Standard does not include electrical, mechanical or environmental requirements as these are specified in other Parts of this series of Standards (see Preface).

**1.2 Application** This Standard shall be read in conjunction with another principal Standard (see Clause 3.1.3). Requirements of the principal Standard shall take precedence over those of this Standard.

**2 REFERENCED DOCUMENTS** The following documents are referred to in this Standard:

AS

1284 Electricity metering

1284.5 Part 5: General purpose electronic watt-hour meters

1284.6 Part 6: Ripple control receivers for tariff and load control

1852 International Electrotechnical Vocabulary (*known as IEV*)

1852.301 Chapter 301: General terms and measurements in electricity

### 3 DEFINITIONS

#### 3.1 General definitions

**3.1.1 Clock**—a time-based element for measuring the passing of time and registering hours, minutes, seconds, etc. including an element that measures elapsed time only.

**3.1.2 Device**—the equipment, e.g. electronic meter, electronic register, ripple control receiver or other load control device, which incorporates a clock.

**3.1.3 Principal Standard**—the Standard which applies to the device in which the clock is incorporated, e.g. AS 1284.5, AS 1284.6.

#### 3.2 Definitions related to the functional elements

**3.2.1 Display**—a digital device for facilitating the setting and observation of the settings of the clock and for the display of indicated time.

**3.2.2 Operation reserve**—the maximum period of time for which the supply voltage may be interrupted without affecting the correct time-keeping of the clock.

**3.2.3 Reserve restoration time**—the period of time required for restoring the full operation reserve from the point where the operation reserve has been completely exhausted.

**3.2.4 Time indication discrepancy**—the difference between the time displayed by the clock and the actual time.