Australian Standard®

Electricity metering

Part 7: Internal clocks for meters and load control devices

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

This Australian Standard was prepared by Committee EL/11, Electricity Metering Equipment. It was approved on behalf of the Council of Standards Australia on 7 December 1993 and published on 14 March 1994.

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

Review of Australian Standards. *To keep abreast of progress in industry, Australian Standards are subject to periodic review and are kept up to date by the issue of amendments or new editions as necessary. It is important therefore that Standards users ensure that they are in possession of the latest edition, and any amendments thereto.*

Full details of all Australian Standards and related publications will be found in the Standards Australia Catalogue of Publications; this information is supplemented each month by the magazine 'The Australian Standard', which subscribing members receive, and which gives details of new publications, new editions and amendments, and of withdrawn Standards.

Suggestions for improvements to Australian Standards, addressed to the head office of Standards Australia, are welcomed. Notification of any inaccuracy or ambiguity found in an Australian Standard should be made without delay in order that the matter may be investigated and appropriate action taken.

This Standard was issued in draft form for comment as DR 91112.

Australian Standard®

Electricity metering

Part 7: Internal clocks for meters and load control devices

First published as AS 1284.7—1994.

PUBLISHED BY STANDARDS AUSTRALIA
(STANDARDS ASSOCIATION OF AUSTRALIA)
1 THE CRESCENT, HOMEBUSH, NSW 2140

ISBN 0 7262 8166 2

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

CONTENTS

Page

1 SCOPE AND APPLICATION 3
2 REFERENCED DOCUMENTS 3
3 DEFINITIONS 3
4 REQUIREMENTS 4
5 TESTS AND TEST CONDITIONS 6

© Copyright — STANDARDS AUSTRALIA

Users of Standards are reminded that copyright subsists in all Standards Australia publications and software. Except where the Copyright Act allows and except where provided for below no publications or software produced by Standards Australia may be reproduced, stored in a retrieval system in any form or transmitted by any means without prior permission in writing from Standards Australia. Permission may be conditional on an appropriate royalty payment. Requests for permission and information on commercial software royalties should be directed to the head office of Standards Australia.

Standards Australia will permit up to 10 percent of the technical content pages of a Standard to be copied for use exclusively in-house by purchasers of the Standard without payment of a royalty or advice to Standards Australia.

Standards Australia will also permit the inclusion of its copyright material in computer software programs for no royalty payment provided such programs are used exclusively in-house by the creators of the programs.

Care should be taken to ensure that material used is from the current edition of the Standard and that it is updated whenever the Standard is amended or revised. The number and date of the Standard should therefore be clearly identified.

The use of material in print form or in computer software programs to be used commercially, with or without payment, or in commercial contracts is subject to the payment of a royalty. This policy may be varied by Standards Australia at any time.

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 watthour 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 on 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, not 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.

COPYRIGHT