AS 4086.1—1993

Australian Standard®

Secondary batteries for use with stand-alone power systems

Part 1: General requirements

[Defence Title allocated by Codification and Standardisation Authority:
BATTERIES RECHARGEABLE
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This Australian Standard was prepared by Committee EL/5, Secondary Batteries. It was approved on behalf of the Council of Standards Australia on 2 October 1992 and published on 15 March 1993.

The following interests are represented on Committee EL/5:

Australian Automobile Association

Australian Automotive Aftermarket Association

Australian Chamber of Commerce and Industry

Australian Electrical and Electronic Manufacturers Association

Australian Federation of Consumer Organizations

Australian Lead Development Association

Department of Defence

Electricity Supply Association of Australia

Federal Chamber of Automotive Industries

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Civil Aviation Authority

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PREFACE

This Standard was prepared by the Standards Australia Committee on Secondary Batteries.

A distinguishing feature of stand-alone power systems is the unpredictability of and limitation on the amount of charging power available and hence on the charge-discharge cycles imposed on the battery. Batteries for use in stand-alone power systems have different requirements to those designed for use in other applications, in particular low self-discharge, long life under the charging cycle associated with stand-alone systems, and the ability to operate over a wide temperature range.

Batteries in stand-alone power systems are often supplied with power from a number of sources, such as photovoltaic arrays, wind generators, water generators and diesels, combined to form a hybrid system.

This Standard is the first part of a two-part Standard on stand-alone batteries, the two parts of which are—

(a) this Standard; and

(b) a proposed second part covering the installation and maintenance of stand-alone batteries.

In the preparation of this Standard reference was made to a draft Standard, Rechargeable batteries for photovoltaic solar energy systems, prepared by IEC Committee 21, Secondary Cells and Batteries.

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