

AS 62040.3—2002  
IEC 62040-3:1999  
(Incorporating Amendment No. 1)

AS 62040.3

Australian Standard™

**Uninterruptible power systems (UPS)**

**Part 3: Method of specifying the  
performance and test requirements**

This Australian Standard was prepared by Committee EL-027, Power Electronics. It was approved on behalf of the Council of Standards Australia on 15 November 2002 and published on 17 December 2002.

---

The following are represented on Committee EL-027:

Australian Communications Authority  
Australian Electrical and Electronic Manufacturers Association  
Bureau of Steel Manufacturers of Australia  
Electricity Supply Association of Australia  
Monash University  
University of Wollongong

---

#### **Keeping Standards up-to-date**

Standards are living documents which reflect progress in science, technology and systems. To maintain their currency, all Standards are periodically reviewed, and new editions are published. Between editions, amendments may be issued. Standards may also be withdrawn. It is important that readers assure themselves they are using a current Standard, which should include any amendments which may have been published since the Standard was purchased.

Detailed information about Standards can be found by visiting the Standards Australia web site at [www.standards.com.au](http://www.standards.com.au) and looking up the relevant Standard in the on-line catalogue.

Alternatively, the printed Catalogue provides information current at 1 January each year, and the monthly magazine, *The Global Standard*, has a full listing of revisions and amendments published each month.

We also welcome suggestions for improvement in our Standards, and especially encourage readers to notify us immediately of any apparent inaccuracies or ambiguities. Contact us via email at [mail@standards.com.au](mailto:mail@standards.com.au), or write to the Chief Executive, Standards Australia International Ltd, GPO Box 5420, Sydney, NSW 2001.

---

**AS 62040.3—2002**  
(Incorporating Amendment No. 1)

**Australian Standard™**

## **Uninterruptible power systems (UPS)**

### **Part 3: Method of specifying the performance and test requirements**

First published as AS 62040.3—2002.  
Reissued incorporating Amendment No. 1 (August 2003).

#### **COPYRIGHT**

© Standards Australia International

All rights are reserved. No part of this work may be reproduced or copied in any form or by any means, electronic or mechanical, including photocopying, without the written permission of the publisher.

Published by Standards Australia International Ltd  
GPO Box 5420, Sydney, NSW 2001, Australia

ISBN 0 7337 4955 0

## PREFACE

This Standard was prepared by the Standards Australia Committee EL-027, *Power Electronics*. *This Standard incorporates Amendment No. 1 (August 2003). The changes required by the Amendment are indicated in the text by a marginal bar and amendment number against the clause, note, table, figure or part thereof affected.*

The objective of this Standard is to provide manufacturers, designers and users with a means of specifying uninterruptible power supply systems.

This Standard has been reproduced from, and is technically identical to, IEC 62040-3:1999, *Uninterruptible power systems (UPS) Part 3: Method of specifying the performance and test requirements*.

A1 | IEC 62040-3:1999 contained errors in Figures 4 and F.3 and Annex E and, after consultation with the IEC Committee, these errors have been corrected. In addition, notes have been added to some clauses to assist users of this Standard.

Variations to IEC 62040-3:1999 are indicated at the appropriate places throughout this standard. Strikethrough (~~example~~) identifies IEC text, tables and figures which, for the purposes of this Australian Standard, are deleted. Where text, tables or figures are added, each is set in its proper place and identified by shading (~~example~~). Added figures are not themselves shaded, but are identified by a shaded border.

The terms ‘normative’ and ‘informative’ are used to define the application of the annex to which they apply. A normative annex is an integral part of a standard, whereas an informative annex is only for information and guidance.

In this Standard, the following print types are used:

- requirements proper: in arial type;
- explanatory matter: in smaller arial type.

As this Standard is reproduced from an International Standard, the following applies:

- (a) Its number does not appear on each page of text and its identity is shown only on the cover and title page.
- (b) In the source text ‘this international standard’ should read ‘this Australian Standard’.
- (c) A full point should be substituted for a comma when referring to a decimal marker.

## CONTENTS

	<i>Page</i>
1 Scope and object.....	1
2 Normative references .....	2
3 Terms and definitions .....	4
3.1 Systems and components.....	4
3.2 Performance of systems and components .....	7
3.3 Specified values – General.....	13
3.4 Input values.....	16
3.5 Output values .....	17
4 General ambient service conditions .....	19
4.1 Normal environmental and climatic service conditions .....	19
4.1.1 Altitude.....	20
4.1.2 Ambient service temperature .....	20
4.1.3 Relative humidity .....	20
4.1.4 Ambient storage and transportation conditions .....	20
4.2 Unusual service conditions to be identified by the purchaser .....	21
4.2.1 Environmental conditions to be identified.....	21
4.2.2 Mechanical conditions to be identified .....	21
5 Electrical service conditions and performance .....	21
5.1 General - All UPS.....	21
5.1.1 UPS configurations.....	21
5.1.2 Equipment markings and instructions .....	22
5.1.3 Equipment safety.....	24
5.2 UPS input specifications.....	24
5.2.1 Normal service conditions.....	24
5.2.2 Rated values and characteristics .....	25
5.2.3 UPS input conditions to be identified by the purchaser .....	26
5.3 UPS output specifications.....	26
5.3.1 Steady-state and dynamic output voltage characteristics .....	26
5.3.2 Rated output values and characteristics .....	29
5.3.3 Single UPS and parallel UPS with bypass.....	30
5.3.4 Performance requirements to be identified by the purchaser.....	30
5.4 UPS intermediate d.c. circuit and/or battery circuit specification .....	31
5.5 UPS switches, rated values and performance .....	31
5.5.1 General .....	31
5.5.2 UPS switches .....	32
5.6 Redundant and parallel UPS systems (refer to annex A) .....	32
5.6.1 Standby redundant UPS .....	32
5.6.2 Parallel redundant UPS .....	32
5.7 Electromagnetic compatibility .....	33
5.8 Signalling circuits .....	33

This is a free preview. Purchase the entire publication at the link below:

[Product Page](#)

- 
- Looking for additional Standards? Visit Intertek Inform Infostore
  - Learn about LexConnect, All Jurisdictions, Standards referenced in Australian legislation
-