

Australian/New Zealand Standard™

**Performance of electrical appliances—
Air conditioners and heat pumps**

**Part 4.3: Air-cooled air conditioners and
air-to-air heat pumps—Testing and
calculating methods for seasonal
performance factors—Annual
performance factor**



AS/NZS 3823.4.3:2014

This Joint Australian/New Zealand Standard was prepared by Joint Technical Committee EL-056, Room Air Conditioners. It was approved on behalf of the Council of Standards Australia on 5 September 2014 and on behalf of the Council of Standards New Zealand on 12 September 2014.
This Standard was published on 1 October 2014.

The following are represented on Committee EL-056:

Airconditioning and Refrigeration Equipment Manufacturers Association of Australia
Australian Building Codes Board
Australian Industry Group
CHOICE
Consumer Electronics Association of New Zealand
Consumer Electronics Suppliers Association
Department of Industry (Australian Government)
Electrical Compliance Testing Association
Energy Efficiency and Conservation Authority of New Zealand
Energy Safe Victoria
Institute of Refrigeration Heating and Air Conditioning Engineers of New Zealand
Institution of Professional Engineers New Zealand
University of New South Wales

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 Standards may also be withdrawn.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 joint Australian/New Zealand Standards can be found by visiting the Standards Web Shop at www.saiglobal.com.au or Standards New Zealand web site at www.standards.co.nz and looking up the relevant Standard in the on-line catalogue.

For more frequent listings or notification of revisions, amendments and withdrawals, Standards Australia and Standards New Zealand offer a number of update options. For information about these services, users should contact their respective national Standards organization.

We also welcome suggestions for improvement in our Standards, and especially encourage readers to notify us immediately of any apparent inaccuracies or ambiguities. Please address your comments to the Chief Executive of either Standards Australia or Standards New Zealand at the address shown on the back cover.

This Standard was issued in draft form for comment as DR 102472.

Australian/New Zealand Standard™

Performance of electrical appliances— Air conditioners and heat pumps

Part 4.3: Air-cooled air conditioners and air-to-air heat pumps—Testing and calculating methods for seasonal performance factors—Annual performance factor

First published as AS/NZS 3823.4.3:2014.

COPYRIGHT

© Standards Australia Limited/Standards New Zealand

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, unless otherwise permitted under the Copyright Act 1968 (Australia) or the Copyright Act 1994 (New Zealand).

Jointly published by SAI Global Limited under licence from Standards Australia Limited, GPO Box 476, Sydney, NSW 2001 and by Standards New Zealand, Private Bag 2439, Wellington 6140.

ISBN 978 1 74342 853 5

PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee EL-056.

The objective of this Standard is to provide a method of testing and calculating the annual performance factor of equipment using temperature bin distributions.

This Standard is identical with and has been reproduced from ISO 16358-3:2013, *Air-cooled air conditioners and air-to-air heat pumps—Testing and calculating methods for seasonal performance factors*, Part 3: *Annual performance factor*.

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

- (a) In the source text ‘this part of ISO 16358’ should read ‘this Australian/New Zealand Standard’.
- (b) A full point substitutes for a comma when referring to a decimal marker.

References to International Standards should be replaced by references to Australian or Australian/New Zealand Standards, as follows:

<i>Reference to International Standard</i>		<i>Australian/New Zealand Standard</i>	
ISO		AS/NZS	
5151	Non-ducted air conditioners and heat pumps—Testing and rating for performance	3823	Performance of electrical appliances—Airconditioners and heat pumps
		3823.1.1	Part 1.1: Non-ducted airconditioners and heat pumps—Testing and rating for performance (ISO 5151:2010, MOD)
13253	Ducted air-conditioners and air-to-air heat pumps—Testing and rating for performance	3823.1.2	Part 1.2: Ducted airconditioners and air-to-air heat pumps—Testing and rating for performance (ISO 13253:2011, MOD)
15042	Multiple split-system air-conditioners and air-to-air heat pumps—Testing and rating for performance	3823.1.4	Part 1.4: Multiple split-system airconditioners and air-to-air heat pumps—Testing and rating for performance (ISO 15042:2011, MOD)

The ISO 16358, Parts 1 to 3 have been adopted as the AS/NZS 3823.4, Parts 4.1 to 4.3.

The term ‘informative’ has been used in this Standard to define the application of the annex to which it applies. An ‘informative’ annex is only for information and guidance.

CONTENTS

1	Scope	1
2	Normative references	1
3	Terms and definitions	1
4	Symbols	3
5	Calculation of annual performance factor (APF) and total annual performance factor (TAPF)	3
6	Test report	3
	Annex A (informative) Calculation of total annual performance factor (TAPF)	4

NOTES