

AS 1359.102.1—1997

IEC 34-2:1972

IEC 34-2:1972/Amd.1:1995

IEC 34-2:1972/Amd.2:1996

Australian Standard®

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**Rotating electrical machines—  
General requirements**

**Part 102.1: Methods for determining  
losses and efficiency—General**

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[IEC title: Rotating electrical machines, Part 2: Methods for determining losses and efficiency of rotating electrical machinery from tests (excluding machines for traction vehicles)]

This Australian Standard was prepared by Committee EL/9, Rotating Electrical Machinery. It was approved on behalf of the Council of Standards Australia on 10 March 1997 and published on 5 July 1997.

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The following interests are represented on Committee EL/9:

Australian British Chamber of Commerce  
Australian Chamber of Commerce and Industry  
Australian Electrical and Electronic Manufacturers Association  
Bureau of Steel Manufacturers of Australia  
Department of Defence  
Electricity Supply Association of Australia  
Institution of Engineers Australia

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## PREFACE

This Standard was prepared by the Standards Australia Committee EL/9, Rotating Electrical Machinery to supersede, in part, AS 1359.33—1983, *General requirements for rotating electrical machines*, Part 33: *Methods for determining losses and efficiency*.

It is identical to and has been reproduced from IEC 34-2:1972, *Rotating electrical machines*, Part 2: *Methods for determining losses and efficiency of rotating electrical machinery from tests (excluding machines for traction vehicles)*, including Amd.1:1995 and Amd.2:1996 as indicated by marginal bars near the affected text. Reproduction was done by scanning the IEC text and adjusting the style of the original publication to conform with later IEC style.

This Standard is a Part of the AS 1359 series listed in AS 1359.0, Part titled: *Introduction and list of Parts*.

The objective of this Standard is to provide the rotating electrical machine industry with standard methods for determining losses and efficiency.

The objective of this Revision is to clarify certain methods and to provide more details of the retardation method (from IEC 34-2 Amd.1); to amend the reference temperature used for correcting  $I^2R$  losses (from IEC 34-2 Amd.2); and to transfer the calorimetric method to a new AS 1359.102.2.

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<i>Reference to International Standard</i>	<i>Australian Standard</i>
34 Rotating electrical machines	1359 Rotating electrical machines—General requirements
34-1 Part 1: Rating and performance	1359.101 Part 101: Rating and performance
34-2A First supplement: Measurement of losses by the calorimetric method	1359.102.2 Part 102.2: Methods for determining losses and efficiency—Calorimetric method
50 International Electrotechnical Vocabulary (IEV)	1852 International Electrotechnical Vocabulary
51 Direct acting indicating analogue electrical measuring instruments and their accessories	—

The references in Paragraph A.1.4 to clauses 11 and 13 and to table II of IEC 34-2A apply respectively to Clauses 4.4, 3.7 and Table 2 of AS 1359.102.2.

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