

Australian Standard™

## Electrical installations in ships

**Part 354: Single- and three-core power cables with extruded solid insulation for rated voltages 6 kV ( $U_m = 7,2$  kV) up to 30 kV ( $U_m = 36$  kV)**



This Australian Standard was prepared by Committee EL-003, Electric Wires and Cables. It was approved on behalf of the Council of Standards Australia on 9 November 2005.  
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The following are represented on Committee EL-003:

Australasian Railway Association  
Australian Electrical and Electronic Manufacturers Association  
Australian Industry Group  
Canterbury Manufacturers Association New Zealand  
Department of Defence (Australia)  
Department of Primary Industries, Mine Safety (NSW)  
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### Part 354: Single- and three-core power cables with extruded solid insulation for rated voltages 6 kV ( $U_m = 7,2$ kV) up to 30 kV ( $U_m = 36$ kV)

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## PREFACE

This Standard was prepared by the Australian members of the Joint Standards Australia/Standards New Zealand Committee EL-003, Electric Wires and Cables. After consultation with stakeholders in both countries, Standards Australia and Standards New Zealand decided to develop this Standard as an Australian, rather than an Australian/New Zealand Standard.

The objective of this Standard is to specify the constructional and test requirements for shipboard and offshore power cables having voltage ratings of 3.6/6 (7.2) kV up to 8.7/15 (17.5) kV for shipboard cables and 3.6/6 (7.2) kV up to 18/30 (36) kV for offshore cables.

This Standard is identical with, and has been reproduced from IEC 60092-354, Ed. 2 (2003), *Electrical installations in ships—Part 354: Single- and three-core power cables with extruded solid insulation for rated voltages 6 kV ( $U_m = 7,2$  kV) up to 30 kV ( $U_m = 36$  kV)*.

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- (b) In the source text 'IEC 60092' should read 'AS 60092'.
- (c) A full point should be substituted for a comma when referring to a decimal marker.

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## Australian Standard

## Electrical installations in ships

Part 354: Single- and three-core power cables with extruded solid insulation for rated voltages 6 kV ( $U_m = 7,2$  kV) up to 30 kV ( $U_m = 36$  kV)**1 Scope and object**

This part of IEC 60092 is applicable to shipboard and offshore power cables with extruded solid insulation, conductor and core screening, having a voltage rating of 3,6/6 (7,2) kV, 6/10 (12) kV, 8,7/15 (17,5) kV, 12/20 (24) kV, 18/30 (36) kV (see Clause 4) and intended for fixed installations. The voltage rating for shipboard use is limited to 8,7/15(17,5) kV.

The various types of power cables are given in Clause 8. The constructional requirements and test methods are expected to comply with those indicated in IEC 60092-350, unless otherwise specified in this standard.

The object of this standard is:

- to standardize cables whose safety and reliability is ensured when they are installed in accordance with the requirements of IEC 60092-352 for shipboard use
- to lay down standard manufacturing requirements and characteristics of such cables directly or indirectly bearing on safety;
- to specify test methods for checking conformity with those requirements.

NOTE 1 Only radial field cables are covered.

NOTE 2 IEC 61892-4, *Mobile and fixed offshore units – Electrical installations – Part 4: Cables* is under consideration by TC18.

**2 Normative references**

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

References to international standards that are struck through in this clause are replaced by references to Australian or Australian/New Zealand Standards that are listed immediately thereafter and identified by shading. Any Australian or Australian/New Zealand Standard that is identical to the International Standard it replaces is identified as such.

~~IEC 60038, IEC standard voltages~~

AS 60038, *Standard voltages*

~~IEC 60092-350, Electrical installations in ships – Part 350: Shipboard power cables – General construction and test requirements~~

AS 60092.350, *Electrical installations in ships – Part 350: Shipboard power cables – General construction and test requirements* (identical to IEC 60092-350)

~~IEC 60092-351, Electrical installations in ships – Part 351: Insulating materials for shipboard and mobile and fixed offshore units power, telecommunication, and control data cables~~