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## REDLINE VERSION

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### **Elinstallationer i fartyg – Del 354: En- och treledarkablar med extruderad isolering med märkspänning 6 kV ( $U_m = 7,2$ kV) till 30 kV ( $U_m = 36$ kV)**

*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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# REDLINE VERSION



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**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)**

INTERNATIONAL  
ELECTROTECHNICAL  
COMMISSION

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ICS 29.060.20; 47.020.60

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## INTERNATIONAL ELECTROTECHNICAL COMMISSION

### 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)**

#### FOREWORD

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**This Redline version provides you with a quick and easy way to compare all the changes between this standard and its previous edition. A vertical bar appears in the margin wherever a change has been made. Additions are in green text, deletions are in strikethrough red text.**

International Standard IEC 60092-354 has been prepared by subcommittee 18A: Electric cables for ships and mobile and fixed offshore units, of IEC technical committee 18: Electrical installations of ships and of mobile and fixed offshore units.

This fourth edition cancels and replaces the third edition published in 2014. This edition constitutes a technical revision.

This edition includes the following significant technical changes with respect to the previous edition:

a) Editorial adaptations have been made.

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The committee has decided that the contents of this document will remain unchanged until the stability date indicated on the IEC website under "<http://webstore.iec.ch>" in the data related to the specific document. At this date, the document will be

- reconfirmed,
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## 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

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 one of the following: 3,6/6 (7,2) kV, 6/10 (12) kV, 8,7/15 (17,5) kV, 12/20 (24) kV, 18/30 (36) kV.

NOTE 1 Subclause 4.1 gives more details.

The cables are intended for fixed installations.

The various types of power cables are given in 5.1. The constructional requirements and test methods are aligned with those indicated in IEC 60092-350, unless otherwise specified in this document.

The object of this document is:

- to standardize cables whose safety and reliability is ensured when they are installed in accordance with the requirements of IEC 60092-352 or IEC 61892-4;
- 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 2 Only radial field cables are covered.

#### 2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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.

IEC 60038, *IEC standard voltages*

IEC 60228, *Conductors of insulated cables*

IEC 60092-350:~~2014~~—, *Electrical installations in ships – Part 350: General construction and test methods of power, control and instrumentation cables for shipboard and offshore applications*<sup>1</sup>

IEC 60092-360, *Electrical installations in ships – Part 360: Insulating and sheathing materials for shipboard and offshore units, power, control, instrumentation and telecommunication cables*

<sup>1</sup> Under preparation. Stage at the time of publication: IEC/BPUB 60092-350:2019.

IEC 60332-1-2, *Tests on electric and optical fibre cables under fire conditions – Part 1-2: Test for vertical flame propagation for a single insulated wire or cable – Procedure for 1 kW pre-mixed flame*

IEC 60332-3-22, *Tests on electric cables under fire conditions – Part 3-22: Test for vertical flame spread of vertically-mounted bunched wires or cables – Category A*

IEC 60684-2, *Flexible insulating sleeving – Part 2: Methods of test*

IEC 60754-1, *Test on gases evolved during combustion of materials from cables – Part 1: Determination of the halogen acid gas content*

IEC 60754-2, *Test on gases evolved during combustion of materials from cables – Part 2: Determination of acidity (by pH measurement) and conductivity*

IEC 60885-2, *Electrical test methods for electric cables. Part 2: Partial discharge tests*

IEC 61034-1, *Measurement of smoke density of cables burning under defined conditions – Part 1: Test apparatus*

IEC 61034-2, *Measurement of smoke density of cables burning under defined conditions – Part 2: Test procedure and requirements*



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*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)*

Denna svenska standard innehåller den engelska texten i nedan angiven IEC-publikation, utarbetad inom International Electrotechnical Commission, IEC:

- **IEC 60092-354, Fourth edition, 2020 - 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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Tidigare fastställd svensk standard SS-IEC 60092-354, utgåva 1, 2017, gäller ej fr o m 2021-12-15.

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**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)**

**Installations électriques à bord des navires –**

**Partie 354: Câbles d'énergie unipolaires et tripolaires à isolement massif extrudé pour des tensions assignées allant de 6 kV ( $U_m = 7,2$  kV) jusqu'à 30 kV ( $U_m = 36$  kV)**

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**ELECTRICAL INSTALLATIONS IN SHIPS –****Part 354: Single- and three-core power cables  
with extruded solid insulation for rated voltages  
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<sup>1</sup> Under preparation. Stage at the time of publication: IEC/BPUB 60092-350:2019.



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