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Electrical resistance trace heating systems for industrial and commercial applications -  
Part 2: Application guide for system design, installation and maintenance (IEC/IEEE  
62395-2:2024)

Elektrische Widerstands-Begleitheizungen für industrielle und gewerbliche Zwecke - Teil  
2: Anwendungsleitfaden für Systemauslegung, Installation und Wartung (IEC/IEEE  
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Systèmes de traçage par résistance électrique pour applications industrielles et  
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**Electrical resistance trace heating systems for industrial and commercial applications - Part 2: Application guide for system design, installation and maintenance  
(IEC/IEEE 62395-2:2024)**

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(IEC/IEEE 62395-2:2024)

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**EN IEC/IEEE 62395-2:2026 (E)****European foreword**

This document (EN IEC/IEEE 62395-2:2026) consists of the text of IEC/IEEE 62395-2:2024 prepared by IEC/TC 27 "Industrial electroheating and electromagnetic processing".

The following dates are fixed:

- latest date by which this document has to be (dop) 2027-07-31 implemented at national level by publication of an identical national standard or by endorsement
- latest date by which the national standards conflicting (dow) 2029-07-31 with this document have to be withdrawn

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IEC/IEEE 60079-30-1	NOTE	Approved as EN 60079-30-1
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## Annex ZA (normative)

### Normative references to international publications with their corresponding European publications

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.

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**Electrical resistance trace heating systems for industrial and commercial applications –  
Part 2: Application guide for system design, installation and maintenance**

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# ELECTRICAL RESISTANCE TRACE HEATING SYSTEMS FOR INDUSTRIAL AND COMMERCIAL APPLICATIONS –

## Part 2: Application guide for system design, installation and maintenance

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IEC/IEEE 62395-2 was prepared by IEC technical committee 27: Industrial electroheating and electromagnetic, in cooperation with the Petroleum & Chemical Industry Committee of the IEEE Industrial Applications Society, under the IEC/IEEE Dual Logo Agreement between IEC and IEEE. It is an International Standard.

This document is published as an IEC/IEEE Dual Logo standard.

This standard cancels and replaces IEC 62395-2:2013. This edition constitutes a technical revision.

This standard includes the following significant technical changes with respect to IEC 62395-2:2013:

- a) Design considerations for trace heating on sprinkler systems have been expanded and a figure has been added to illustrate how to avoid undue shadowing of spray patterns from insulated sprigs close to sprinkler heads;
- b) Specific details of design considerations for trace heating for emergency eyewash units and safety showers have been added.

The text of this International Standard is based on the following IEC documents:

Draft	Report on voting
27/1183/FDIS	27/1185/RVD

Full information on the voting for its approval can be found in the report on voting indicated in the above table.

The language used for the development of this International Standard is English.

This document was drafted in accordance with the rules given in the ISO/IEC Directives, Part 2, available at [www.iec.ch/members\\_experts/refdocs](http://www.iec.ch/members_experts/refdocs). The main document types developed by IEC are described in greater detail at [www.iec.ch/publications/](http://www.iec.ch/publications/).

This standard is intended to be used in conjunction with IEC/IEEE 62395-1.

A list of all parts in the IEC 62395 series, under the general title *Electrical resistance trace heating systems for industrial and commercial applications*, can be found on the IEC website.

The IEC Technical Committee and IEEE Technical Committee have decided that the contents of this document will remain unchanged until the stability date indicated on the IEC website under [webstore.iec.ch](http://webstore.iec.ch) in the data related to the specific document. At this date, the document will be

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## INTRODUCTION

IEC/IEEE 62395-1 provides the essential requirements and testing appropriate to electrical resistance trace heating equipment used in industrial and commercial applications. While some of this work already exists in national or international standards, this document has collated much of this existing work and added considerably to it.

IEC/IEEE 62395-2 provides detailed recommendations for the system design, installation, maintenance and repair of electrical resistance trace heating systems in industrial and commercial applications which can include piping, vessels, roofs and concrete slab heating applications.

It is the objective of the IEC/IEEE 62395 series that, when in normal use, electrical trace heating systems operate safely under their defined conditions of use, by

- a) employing heaters of the appropriate construction so as to meet the test criteria and requirements detailed in IEC/IEEE 62395-1. The construction includes a metallic sheath, braid, screen or equivalent electrically conductive covering;
- b) operating at safe temperatures when designed, installed, and maintained in accordance with IEC/IEEE 62395-2;
- c) having at least the minimum levels of overcurrent and earth-fault protection required in IEC/IEEE 62395-1 and IEC/IEEE 62395-2.

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