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Električne inštalacije zgradb – 7-703. del: Zahteve za posebne inštalacije ali lokacije – Sobe in kabine s savna greli

Electrical installations of buildings - Part 7-703: Requirements for special installations or locations - Rooms and cabins containing sauna heaters

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Partie 7-703: Exigences pour les installations ou emplacements spéciaux – Locaux contenant des radiateurs pour saunas

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International Electrotechnical Commission, 3, rue de Varembé, PO Box 131, CH-1211 Geneva 20, Switzerland Telephone: +41 22 919 02 11 Telefax: +41 22 919 03 00 E-mail: inmail@iec.ch Web: www.iec.ch



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INTERNATIONAL ELECTROTECHNICAL COMMISSION

ELECTRICAL INSTALLATIONS OF BUILDINGS -

Part 7-703: Requirements for special installations or locations – Rooms and cabins containing sauna heaters

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International Standard IEC 60364-7-703 has been prepared by IEC technical committee 64: Electrical installations and protection against electric shock.

This second edition cancels and replaces the first edition published in 1984 and constitutes a technical revision.

The main technical changes with respect to the previous edition concern the updating of requirements to take into account the evolution in sauna equipment, with particular emphasis on prefabricated cabins. In addition, in response to a need from installers, there has been some elaboration on temperature repartition in saunas as well as protection against electric shock. Finally, the four zones described in the first edition have now been reduced to three zones.

The text of this standard is based on the following documents:

FDIS	Report on voting
64/1404/FDIS	64/1417/RVD

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

This publication has been drafted in accordance with the ISO/IEC Directives, Part 2.

IEC 60364 consists of the following parts, under the general title *Electrical installations of buildings:*

Part 1: Fundamental principles, assessment of general characteristics, definitions

Part 2: Void

Part 3: Void

Part 4: Protection for safety

Part 5: Selection and erection of electrical equipment

Part 6: Verification

Part 7: Requirements for special installations or locations

The committee has decided that the contents of this publication will remain unchanged until the maintenance result date indicated on the IEC web site under "http://webstore.iec.ch" in the data related to the specific publication. At this date, the publication will be

- reconfirmed;
- SIST IEC 60364-7-703:2006
- withdrawn; <u>SISTIC 00304-7-703.2000</u> https://standards.iteh.ai/catalog/standards/sist/111e9035-12ad-44b3-a5f9-
- replaced by a revised edition or b40c492/sist-iec-60364-7-703-2006
- amended.

INTRODUCTION

The requirements of this part of IEC 60364 supplement, modify or replace some of the general requirements of the basic parts of IEC 60364, i.e.IEC 60364-1 to IEC 60364-6.

The clause numbering of Part 7-703 follows the structure and corresponding references of IEC 60364-1, IEC 60364-4-41, IEC 60364-5-51 and IEC 60364-5-53.

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ELECTRICAL INSTALLATIONS OF BUILDINGS -

Part 7-703: Requirements for special installations or locations – Rooms and cabins containing sauna heaters

703.11 Scope

The particular requirements of this part of IEC 60364 apply to:

- sauna cabins erected on site, e.g. in a location or in a room;
- the room where the sauna heater is, or the sauna heating appliances are installed. In this case the whole room is considered as the sauna.

They do not apply to prefabricated sauna cabins complying with a relevant equipment standard.

Where facilities like cold water basins or showers, etc. are installed, the requirements of Part 7-701 also apply.

703.12 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.

IEC 60335-2-53, Household and similar relectrical appliances – Safety – Part 2-53: Particular requirements for sauna/heating.appliances/standards/sist/111e9035-12ad-44b3-a5f9c8918b40c492/sist-jec-60364-7-703-2006

IEC 60364-7-701, Electrical installations of buildings – Part 7: Requirements for special installations or locations – Section 701: Locations containing a bath tub or shower basin

703.30 Assessment of general characteristics

703.32 General

When applying this standard, the zones specified in 703.32.1 to 703.32.3 shall be taken into account (see also Figure 703).

703.32.1 Description of zone 1

Zone 1 is the volume containing the sauna heater limited by the floor, the cold side of the thermal insulation of the ceiling and a vertical surface circumscribing the sauna heater at a distance 0,5 m from the surface of the sauna heater. If the sauna heater is located closer than 0,5 m to a wall, then zone 1 is limited by the cold side of the thermal insulation of that wall.

703.32.2 Description of zone 2

Zone 2 is the volume outside zone 1, limited by the floor, the cold side of the thermal insulation of the walls and a horizontal surface located 1,0 m above the floor.

703.32.3 Description of zone 3

Zone 3 is the volume outside zone 1, limited by the cold side of the thermal insulation of the ceiling and walls and a horizontal surface located 1,0 m above the floor.

703.41 Protection for safety – Protection against electric shock

703.411 Protection against both direct and indirect contact

703.411.1 SELV and PELV

NOTE In Italy, PELV is not permitted.

703.411.1.4.3 Protection against direct contact shall be provided for all electrical equipment by

- barriers or enclosures affording a degree of protection of at least IPXXB or IP2X, or
- insulation capable of withstanding a test voltage of 500 V a.c. r.m.s for 1 min.

703.411.1.5.2 Not applicable.

703.412 Protection against direct contact

703.412.3 Obstacles

Protection against direct contact by means of obstacles is not permitted.

Teh STANDARD PREVIEW 703.412.4 Placing out of reach

Protection against direct contact by placing out of reach is not permitted.

703.412.5 Additional protection by residual current protective devices (RCDs)

Additional protection shall be provided for all circuits of the sauna, except for the sauna heater, by the use of one or more residual current protective devices with a rated residual operating current not exceeding 30 mA.

703.413 Protection against indirect contact

703.413.3 Non-conducting location

Protection against indirect contact by using the protective measure: non-conducting location is not permitted.

703.413.4 Protection by earth-free local equipotential bonding

Protection against indirect contact by using the measure: earth-free local equipotential bonding is not permitted.

703.51 Selection and erection of equipment – Common rules

703.512.2 External influences

The equipment shall have at least the degree of protection IP24.

If cleaning by use of water jets may be reasonably expected, electrical equipment shall be at least IPX5.

Three zones are defined as shown in Figure 703:

- in zone 1: only equipment belonging to the sauna heater shall be installed;
- in zone 2: there is no special requirement concerning heat resistance of equipment;
- in zone 3: the equipment shall withstand a minimum temperature of 125 °C and the insulation of wires shall withstand a minimum temperature of 170 °C (see also 703.52 for wiring).

703.52 Selection and erection of electrical equipment – Wiring systems

The wiring systems should be preferably installed outside the zones, i.e. on the cold side of the thermal insulation. If the wiring system is installed in zone 1 or 3, i.e. on the warm side of the thermal insulation, it shall be heat-resistant according to 703.512.2. Metallic sheaths and metallic conduits shall not be accessible in normal use.

703.53 Selection and erection of electrical equipment – Isolation, switching and control

703.536.5 Functional switching (control)

Switchgear and controlgear which forms part of the sauna heater equipment or of other fixed equipment installed in zone 2, may be installed within the sauna room or cabin according to the manufacturer's instructions. Other switchgear and controlgear, e.g. for lighting, shall be placed outside the sauna room or cabin. Socket-outlets shall not be erected within the location containing the sauna heater.

703.55 Other equipment

Sauna heating appliances shall be installed according to manufacturer's instructions, see 7.12.1 of IEC 60335-2-53.

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