



NEGARA BRUNEI DARUSSALAM

**BRUNEI DARUSSALAM STANDARD
PIAWAI BRUNEI DARUSSALAM**

**PBD IEC 60364-7-703: 2010
IEC 60364-7-703: 2010
Edition 2.0**

**ELECTRICAL INSTALLATIONS OF BUILDINGS -
PART 7-703: REQUIREMENTS FOR SPECIAL INSTALLATIONS OR
LOCATIONS - ROOMS AND CABINS CONTAINING SAUNA HEATERS**

**ENERGY DIVISION, PRIME MINISTER'S OFFICE
IN COLLABORATION WITH MINISTRY OF DEVELOPMENT
NEGARA BRUNEI DARUSSALAM**

FOREWORD

This Brunei Darussalam Electrical Standard was prepared by the Technical Committee on Electrical Standards (TECO), Energy Division at Prime Minister's Office in collaboration with the Authority for Building and Construction Industry (ABCi), Ministry of Development, Brunei Darussalam with the objective of developing the National Electrical Standards for electrical products, systems, equipments and facilities for the local industry and consumers with reference to international standards, guidelines and procedures. In developing the national electrical standards, the aim is to promote quality, technical integrity, health, safety and environmental standards for the local industries and consumers.

This Brunei Darussalam Electrical Standard is an adoption of the International Electro Technical Commission IEC 60364-7-703: 2004 (Edition 2.0) standard and implements it as the Brunei Darussalam National Standard.

Attention is drawn to the fact that this Brunei Darussalam Electrical Standard does not confer any immunity from legal obligations in any contract for compliance to the Standard.

The National Electrical Standards are subject to periodical review according to the current needs of the local industries and consumers to keep abreast of progress in the industries and consumers concerned. Suggestions of amendments will be recorded and in due course brought to the notice of the committees concerned.

COMMITTEE MEMBERS

The Technical Committee on Electrical Standards (TECO) was tasked by the Energy Division at the Prime Minister's Office in collaboration with the Authority for Building and Construction Industry (ABCI), Ministry of Development, Brunei Darussalam for the preparation of this Brunei Darussalam Electrical Standard. The members of the Technical Committee are as follows:

- | | |
|---|---|
| 1. Awg Haji Abd Shawal Yaman
(Chairman) | Department of Electrical Services, PMO |
| 2. Awg Liaw Wai Khiong
(Co-Chairman) | Brunei Shell Petroleum Co. Sdn Bhd /
Institution of Engineering and Technology,
Brunei Darussalam |
| 3. Pg Shaharuddin Pg Haji Yusoff
(Secretary) | ABCI, Ministry of Development |
| 4. Awg William Voon
(Assistant Secretary 1) | Berakas Power Management Company, |
| 5. Awg Simon K A Leong
(Assistant Secretary 2) | KR Kamarulzaman & Associates |
| 6. Awg Haji Md Azrul Azrin Hj Md Zain | Department of Electrical Services, PMO |
| 7. Awg Md Amir Sharifuddin Haji Ali | Department of Electrical Services, PMO |
| 8. Awg Khairul Ezam Hj Mohd Zain | ABCI, Ministry of Development |
| 9. Awg Dennis Wong Tet Yin | Department of Mechanical & Electrical
Services, PWD |
| 10. Awg Nohi Irwan Surkarki Haji Pawi | Department of Fire & Rescue Services |
| 11. Awg Haji Morsidi Haji Kassim | Institut Teknologi Brunei |
| 12. Awg Haji Ismit Haji Mohamad | Institut Teknologi Brunei |
| 13. Awg Matyassin Haji Masri | Maktab Kejuruteraan Jefri Bolkiah |
| 14. Awg Sylvester Kong | Brunei Shell Petroleum Co. Sdn Bhd |
| 15. Dyg Seri Malati OKIP Hj Zolkeflee | Brunei Shell Petroleum Co. Sdn Bhd |
| 16. Awang Aristoteles Momin | Brunei LNG Sdn Bhd |
| 17. Awg Rick Liaw | Hamzah Hassan Consultant |

SUB-COMMITTEE NO. 5 MEMBERS

The Sub-Committee No. 5 (SC5) is the working groups for the Electrical Wiring Code of Practice who assisted in the preparation for the adoption of the Brunei Darussalam Electrical Standard. The members of the Sub-Committee No. 5 are :

- | | |
|---------------------------------------|---|
| 1. Awg William Voon
(Chairman) | Berakas Power Management Company, |
| 2. Awg Liaw Wai Khiong
(Secretary) | Brunei Shell Petroleum Co. Sdn Bhd
Institution of Engineering and Technology,
Brunei Darussalam |
| 3. Pg Shahrudin Pg Haji Yusoff | ABCI, Ministry of Development |
| 4. Awg Khairul Ezam Hj Mohd Zain | ABCI, Ministry of Development |
| 5. Awg Simon K A Leong | KR Kamarulzaman & Associates |
| 6. Awg Dennis Wong Tet Yin | Department of Mechanical & Electrical
Services, PWD |
| 7. Dr Rohaniyati Salleh | Department of Mechanical & Electrical
Services, PWD |
| 8. Dyg Hajah Norhayati binti Ahmad | Department of Electrical Services, PMO |
| 9. Awg Abdul Azia bin Abdullah | Department of Electrical Services, PMO |
| 10. Awg Matyassin Haji Masri | Institut Teknologi Brunei |
| 11. Awg Haji Morsidi Haji Kassim | Maktab Kejuruteraan Jefri Bolkihah |
| 12. Awg Tony Ng | PKS Sdn Bhd |
| 13. Awg N. Sivakumar | LKH (B) Sdn Bhd |
| 14. Awg Tan Tau Minn | SEC Mashibah Sdn Bhd |

Electrical installations of buildings –

Part 7-703:

**Requirements for special installations
or locations –**

Rooms and cabins containing sauna heaters



Reference number
CEI/IEC 60364-7-703:2004

PBD IEC 60364-7-703: 2010 (Published by IEC in 2004)
This IEC International Standard has been adopted by CPRU, Ministry of Development,
Negara Brunei Darussalam as a national standard under the IEC Affiliate Country Programme

INTERNATIONAL ELECTROTECHNICAL COMMISSION

ELECTRICAL INSTALLATIONS OF BUILDINGS –

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

FOREWORD

- 1) The International Electrotechnical Commission (IEC) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of IEC is to promote international co-operation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, IEC publishes International Standards, Technical Specifications, Technical Reports, Publicly Available Specifications (PAS) and Guides (hereafter referred to as "IEC Publication(s)"). Their preparation is entrusted to technical committees; any IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and non-governmental organizations liaising with the IEC also participate in this preparation. IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
- 2) The formal decisions or agreements of IEC on technical matters express, as nearly as possible, an international consensus of opinion on the relevant subjects since each technical committee has representation from all interested IEC National Committees.
- 3) IEC Publications have the form of recommendations for international use and are accepted by IEC National Committees in that sense. While all reasonable efforts are made to ensure that the technical content of IEC Publications is accurate, IEC cannot be held responsible for the way in which they are used or for any misinterpretation by any end user.
- 4) In order to promote international uniformity, IEC National Committees undertake to apply IEC Publications transparently to the maximum extent possible in their national and regional publications. Any divergence between any IEC Publication and the corresponding national or regional publication shall be clearly indicated in the latter.
- 5) IEC provides no marking procedure to indicate its approval and cannot be rendered responsible for any equipment declared to be in conformity with an IEC Publication.
- 6) All users should ensure that they have the latest edition of this publication.
- 7) No liability shall attach to IEC or its directors, employees, servants or agents including individual experts and members of its technical committees and IEC National Committees for any personal injury, property damage or other damage of any nature whatsoever, whether direct or indirect, or for costs (including legal fees) and expenses arising out of the publication, use of, or reliance upon, this IEC Publication or any other IEC Publications.
- 8) Attention is drawn to the Normative references cited in this publication. Use of the referenced publications is indispensable for the correct application of this publication.
- 9) Attention is drawn to the possibility that some of the elements of this IEC Publication may be the subject of patent rights. IEC shall not be held responsible for identifying any or all such patent rights.

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;
- withdrawn;
- replaced by a revised edition, or
- 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.

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 electrical appliances – Safety – Part 2-53: Particular requirements for sauna heating appliances*

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.