NEGARA BRUNEI DARUSSALAM

BRUNEI DARUSSALAM STANDARD
PIAWAI BRUNEI DARUSSALAM

PBD IEC 60364-5-51: 2010
IEC 60364-5-51
Edition 5.0 2005-04

ELECTRICAL INSTALLATIONS OF BUILDINGS - PART 5-51: SELECTION AND ERECTION OF ELECTRICAL EQUIPMENT - COMMON RULES

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 60364-5-51: 2005 (Edition 5) 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 Shaharuddin 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 Bolkiah
12. Awg Tony Ng	PKS Sdn Bhd
13. Awg N. Sivakumar	LKH (B) Sdn Bhd
14. Awg Tan Tau Minn	SEC Mashibah Sdn Bhd

PIAWAI BRUNEI DARUSSALAM – BRUNEI DARUSSALAM STANDARD

INTERNATIONAL STANDARD

IEC 60364-5-51

Fifth edition
2005-04

Electrical installations of buildings –

Part 5-51: Selection and erection of electrical equipment – Common rules

Reference number
CEI/IEC 60364-5-51:2005

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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

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

ELECTRICAL INSTALLATIONS OF BUILDINGS –

Part 5-51: Selection and erection of electrical equipment – Common rules

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.
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International Standard IEC 60364-5-51 has been prepared by IEC technical committee 64: Electrical installations and protection against electric shock.

This fifth edition of IEC 60364-5-51 cancels and replaces the fourth edition published in 2001 and constitutes a technical revision.

The document 64/1438/FDIS, circulated to National Committees as Amendment 1, led to the publication of the new edition.

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The main changes with respect to the previous edition are listed below:

- corrections of misprints in Table 51 based on Table 321 derived from the old Part 3;
- introduction of a new Clause 516 dealing with measures for mitigation of protective conductor currents;
- introduction of an informative Annex B extracted from IEC 61140 in Annex E of this standard. Annex B of IEC 61140 deals with protective conductor currents.

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

FDIS	Report on voting
64/1438/FDIS	64/1460/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 amendment and the base 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.

ELECTRICAL INSTALLATIONS OF BUILDINGS –

Part 5-51: Selection and erection of electrical equipment – Common rules

510 Introduction

510.1 Scope

This part of IEC 60364 deals with the selection of equipment and its erection. It provides common rules for compliance with measures of protection for safety, requirements for proper functioning for intended use of the installation, and requirements appropriate to the external influences foreseen.

510.2 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.

IEC 60068-2-11:1981, *Environmental testing – Part 2: Tests. Test Ka: Salt mist*

IEC 60073:1996, *Basic and safety principles for man-machine interface, marking and identification – Coding principles for indication devices and actuators*

IEC 60079 (all parts), *Electrical apparatus for explosive gas atmospheres*

IEC 60255-22-1:1988, *Electrical relays – Part 22: Electrical disturbance tests for measuring relays and protection equipment – Section 1: 1 MHz burst disturbance tests*

IEC 60364-1:2001, *Electrical installations of buildings – Part 1: Fundamental principles*

IEC 60364-4-41:2001, *Electrical installations of buildings – Part 4-41: Protection for safety – Protection against electric shock*

IEC 60364-4-42:2001, *Electrical installations of buildings – Part 4-42: Protection for safety – Protection against thermal effects*

IEC 60364-4-44:2001, *Electrical installations of buildings – Part 4-44: Protection for safety – Protection against voltage disturbances and electromagnetic disturbances*

IEC 60364-5-52:2001, *Electrical installations of buildings – Part 5-52: Selection and erection of electrical equipment – Wiring systems*

IEC 60364-5-54, *Electrical installations of buildings – Part 5-54: Selection and erection of electrical equipment – Earthing arrangements and protective conductors and protective bonding conductors*

IEC 60446:1999, *Basic and safety principles for man-machine interface, marking and identification – Identification of conductors by colours or numerals*

IEC 60447:1993, *Man-machine interface (MMI) – Actuating principles*

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