NEGARA BRUNEI DARUSSALAM

BRUNEI DARUSSALAM STANDARD
PIAWAI BRUNEI DARUSSALAM

PBD IEC 60364-5-53: 2010
IEC 60364-5-53
Edition 3.1 2002-06

ELECTRICAL INSTALLATIONS OF BUILDINGS - PART 5-53: SELECTION AND ERECTION OF ELECTRICAL EQUIPMENT - ISOLATION, SWITCHING AND CONTROL

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 60364-5-53: 2002 (Edition 3.1) 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

IEC 60364-5-53

Edition 3.1 2002-06

INTERNATIONAL STANDARD

Electrical installations of buildings –
Part 5-53: Selection and erection of electrical equipment – Isolation, switching and control

INTERNATIONAL
ELECTROTECHNICAL
COMMISSION

ICS 29.130; 91.140.50

ISBN 2-8318-6365-1

CONTENTS

PBD IEC 60364-5-53: 2010 (Published by IEC in 2002)

PBD IEC 60364-5-53: 2010 (Published by IEC in 2002)

PBD IEC 60364-5-53: 2010 (Published by IEC in 2002)

INTERNATIONAL ELECTROTECHNICAL COMMISSION

ELECTRICAL INSTALLATIONS OF BUILDINGS –

Part 5-53: Selection and erection of electrical equipment – Isolation, switching and control

FOREWORD

1) The IEC (International Electrotechnical Commission) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of the 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, the IEC publishes International Standards. 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. The 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 the 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 National Committees.
3) The documents produced have the form of recommendations for international use and are published in the form of standards, technical specifications, technical reports or guides and they are accepted by the National Committees in that sense.
4) In order to promote international unification, IEC National Committees undertake to apply IEC International Standards transparently to the maximum extent possible in their national and regional standards. Any divergence between the IEC Standard and the corresponding national or regional standard shall be clearly indicated in the latter.
5) The IEC provides no marking procedure to indicate its approval and cannot be rendered responsible for any equipment declared to be in conformity with one of its standards.
6) Attention is drawn to the possibility that some of the elements of this International Standard may be the subject of patent rights. The IEC shall not be held responsible for identifying any or all such patent rights.

International Standard IEC 60364-5-53 has been prepared by IEC technical committee 64: Electrical installations and protection against electric shock.

The IEC 60364 series (parts 1 to 6), is currently being restructured, without any technical changes, into a more simple form (see annex D).

This consolidated version of IEC 60364-5-53 consists of the third edition (2001) and its amendment 1 (2002) [documents 64/1226/FDIS and 64/1243/RVD].

The technical content is therefore identical to the base edition and its amendment and has been prepared for user convenience.

It bears the edition number 3.1.

A vertical line in the margin shows where the base publication has been modified by amendment 1.

According to a unanimous decision by the Committee of Action (CA/1720/RV (2000-03-21)), the restructured parts of IEC 60364 have not been submitted to National Committees for approval.

The text of this third edition of IEC 60364-5-53 is compiled from and replaces

- IEC 60364-5-53, second edition (1994) and its corrigendum 1 (1996),
- IEC 60364-5-534, first edition (1997),
- IEC 60364-5-537, first edition (1981) and its amendment 1 (1989) and
- IEC 60364-4-46, first edition (1981).

PBD IEC 60364-5-53: 2010 (Published by IEC in 2002)

This publication has been drafted, as close as possible, in accordance with the ISO/IEC Directives, Part 3.

Annexes A, B, C, D and E are for information only.

The committee has decided that the contents of the base publication and its amendment will remain unchanged until 2003. At this date, the publication will be

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

ELECTRICAL INSTALLATIONS OF BUILDINGS –

Part 5-53: Selection and erection of electrical equipment – Isolation, switching and control

530 Introduction

530.1 Scope

This part of IEC 60364 deals with general requirements for isolation, switching and control and with the requirements for selection and erection of the devices provided to fulfil such functions.

530.2 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 60269-3:1987, *Low-voltage fuses – Part 3: Supplementary requirements for fuses for use by unskilled persons (fuses mainly for household and similar applications)*

IEC 60364-4-41:2001, *Electrical installations of buildings – IEC 60364-4-41: 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 60364-4-43:2001, *Electrical installations of buildings – Part 4-43: Protection for safety – Protection against overcurrent*

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

IEC 60364-6-61:2001, *Electrical installations of buildings – Part 6-61: Verification – Initial verification*

IEC 60364-7-705:1984, *Electrical installations of buildings – Part 7: Requirements for special installations or locations – Section 705: Electrical installations of agricultural and horticultural premises*

IEC 60664-1:1992, *Insulation coordination for equipment within low-voltage systems – Part 1: Principles, requirements and tests*

IEC 61008-1:1996, *Residual current operated circuit-breakers without integral overcurrent protection for household and similar uses (RCCBs) – Part 1: General rules*

IEC 61009-1:1996, *Residual current operated circuit-breakers with integral overcurrent protection for household and similar uses (RCBOs) – Part 1: General rules*

IEC 61024-1:1990, *Protection of structures against lightning – Part 1: General principles*

PBD IEC 60364-5-53: 2010 (Published by IEC in 2002)