



Technical collection

# Electrical installation guide 2009

According to  
IEC international  
standards



<http://theguide.schneider-electric.com>

**Schneider**  
 Electric

This guide has been written for electrical Engineers who have to design, realize, inspect or maintain electrical installations in compliance with international Standards of the International Electrotechnical Commission (IEC).

“Which technical solution will guarantee that all relevant safety rules are met?” This question has been a permanent guideline for the elaboration of this document.

An international Standard such as the IEC 60364 “Electrical Installation in Buildings” specifies extensively the rules to comply with to ensure safety and predicted operational characteristics for all types of electrical installations. As the Standard must be extensive, and has to be applicable to all types of products and the technical solutions in use worldwide, the text of the IEC rules is complex, and not presented in a ready-to-use order. The Standard cannot therefore be considered as a working handbook, but only as a reference document.

The aim of the present guide is to provide a clear, practical and step-by-step explanation for the complete study of an electrical installation, according to IEC 60364 and other relevant IEC Standards. Therefore, the first chapter (B) presents the methodology to be used, and each chapter deals with one out of the eight steps of the study. The two last chapters are devoted to particular supply sources, loads and locations, and appendix provides additional information. Special attention must be paid to the EMC appendix, which is based on the broad and practical experience on electromagnetic compatibility problems.

We all hope that you, the user, will find this handbook genuinely helpful.

**Schneider Electric S.A.**

This technical guide is the result of a collective effort.

Technical advisor:  
Serge Volut - Jacques Schonek

Illustrations and production:  
AXESS - Valence -France

Printing:  
Les Deux-Ponts - France

Edition  
December 2008

Price: 90 €

**ISBN: 978.2.9531643.0.5**  
**N° dépôt légal: 1er semestre 2008**

© Schneider Electric  
All rights reserved in all countries

The Electrical Installation Guide is a single document covering the techniques, regulations and standards related to electrical installations. It is intended for electrical professionals in companies, design offices, inspection organisations, etc.

This Technical Guide is aimed at professional users and is only intended to provide them guidelines for the definition of an industrial, tertiary or domestic electrical installation. Information and guidelines contained in this Guide are provided AS IS. Schneider Electric makes no warranty of any kind, whether express or implied, such as but not limited to the warranties of merchantability and fitness for a particular purpose, nor assumes any legal liability or responsibility for the accuracy, completeness, or usefulness of any information, apparatus, product, or process disclosed in this Guide, nor represents that its use would not infringe privately owned rights. The purpose of this guide is to facilitate the implementation of International installation standards for designers & contractors, but in all cases the original text of International or local standards in force shall prevail.

This new edition has been published to take into account changes in techniques, standards and regulations, in particular electrical installation standard IEC 60364.

We thank all the readers of the previous edition of this guide for their comments that have helped improve the current edition. We also thank the many people and organisations, too numerous to name here, who have contributed in one way or another to the preparation of this guide.

[cuuduongthancong.com](http://cuuduongthancong.com)

## Acknowledgements

This guide has been realized by a team of experienced international experts, on the base of IEC 60364 standard, and include the latest developments in electrical standardization.

We shall mention particularly the following experts and their area of expertise:

		<b>Chapter</b>
Christian	Collombet	D
Bernard	Jover	Q
Charley	Gros	L, M
Didier	Fulchiron	B
Didier	Mignardot	J
Emmanuel	Genevray	E, P
Eric	Breuil�	F
Franck	M�gret	G
Geoffroy	De-Labrouhe	K
Jacques	Schonek	A, C, D, G, N
Jean Marc	Lupin	L, M
Jean Paul	Baudet	N
Jean Paul	Lionet	E
J�rome	Lecomte	H
Matei	Iurascu	F, H
Michel	Sacotte	B

You can ask questions to these experts by sending a mail at the following address:

FR-Tech-Com@schneider-electric.com