

# Preface to the Third International Edition

The 8th German edition of “Schutztechnik mit Isolationsüberwachung, VDE-Schriftenreihe Band 114, 2003” contained recommendations for the protection against electric shock, with various methods of protection for electrical installations and equipment. The central theme, however, is the “unearthed IT system“ (in the following just called IT system) and insulation monitoring.

This translation follows the book at large. However, for the international application, the German and European standard references have been adapted to the respective International standards of the IEC or left out, if not relevant. This necessitated omitting some sections and hence resulted in a different structure of some chapters.

The attentive reader of this 3<sup>rd</sup> edition will notice that the chapter on IT systems for medical locations is no longer a part of this book. The topic of “electrical safety of medical location” and “safety of medical electrical devices” can now be found in a new German book by the author, titled “Elektrische Sicherheit in medizinischen Bereichen” – the translation “Electrical Safety in Medical Locations” is in planning.

As usual, the rapid technological development and changes in the normative environment makes it almost impossible to publish a book containing the very latest standard updates. However, great effort went into revising the International standards, especially in respect to developments concerning IT systems. Hence it can be said, that the product at hand is more up to date than the last German edition it is based on. And in addition, looking ahead I decided, much against my own principles, to include a few, but very important standard drafts. They are pointed out to the reader.

A new chapter has been added, which had proven to be successful in other International editions. Chapter 17 endeavours to give the reader an overview of the referenced International standards and provides thus a tool for the readers own research.

At this point, I would like to point out, that the European counterparts of the referenced IEC standards in this book may be in another developmental stage and therefore may have a different validity status. This could also mean that European standards (EN – European Norm, or HD – Harmonization Document) may include special guidelines, which are not included in IEC standards, but contain important information for the respective European countries. This development concerns mainly the EN standards: HD 60364-series, EN 60479, HD 61140, described in Chapters 2 to 5 and Chapter 13. It is for this reason, that I am planning to publish an extended International and European edition of this book in 2007, when the

development process of these European standards and Harmonization Documents are expected to be completed.

As in the past, criticism, improvements and suggestions are always highly desired, welcomed and, if applicable, considered by me in future publications.

### **Special Appreciation**

The research, compilation, verification, collation and summing up of information is tedious and hard to be achieved alone. Writing the original version, I had many helping hands and eyes. A big thank you therefore goes out to:

- Colleagues from various National and International committees
- Colleagues from the BENDER company
- Friends from various sectors of the industry
- Interested readers for their criticism, feed-back and suggestions for improvements.

A very special appreciation is extended to Mrs Monika Patterson, who not only translated this English edition, but at the same time researched International, German and European standards, compiled and collated every chapter and gave many important pointers. Without her support this book would not have been written so quickly.

At this point I explicitly thank the BENDER company in Gruenberg, namely Mr Christian D. Bender, his wife Heidemarie and children Sabine, Christian, Anne and Dorothy, for the exemplary support, not only for writing this book, but for supporting all of the honorary normative work in various national and international standard committees by members of the BENDER-Staff. Their wholehearted belief in the far-reaching benefits of this work to the company is greatly appreciated.

Last but not least my special thanks are also extended to my wife Ellen for her great patience and understanding during my work on this book.

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Wolfgang Hofheinz

# **Preface to the Second Edition**

Fundamental changes made by various Standard Organizations as well as the continuous technical development of insulation monitoring devices and insulation fault location systems called for a revision of the first English edition from 1992. In the meantime the 6th edition of the German book has been published. The present edition on the whole is the English translation of the 6th German edition of the book „Schutztechnik mit Isolationsüberwachung”. New chapters, such as “Insulation monitoring in rail vehicles” have been included.

The author would like to dedicate special thanks to Mrs. Vollhardt who has done the translation of this book. He also wants to thank Mr. Kaul and Mr. Ernst, Bender Grünberg (Germany), as well as Mr. John Murray, Bender (United Kingdom), who critically examined the draft manuscript.

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Wolfgang Hofheinz