Foreword Recent state of technology and documentation

The first edition of the application guidelines for the dimensioning, testing and application of metal oxide surge arresters (MO arresters) in medium voltage systems appeared in 1994 and was written by René Rudolph. We were very pleased by the extremely positive reception, which attested to our belief that competent consulting with regard to the application of our products is as important as the quality of the products itself.

The technological progress and the many constructive remarks by our customers now makes it necessary to provide a fifth revised edition of this brochure. The concept of the brochure remains the same. The dimensioning and the theoretical derivations for the best possible use of the surge arresters have not changed and therefore they were taken as such in the new edition, however some completions were made when considered necessary. The printing mistakes were corrected and the scientific phraseology was improved. The details of the basics were strongly underlined. The state of technological development today demands the use of metal oxyde surge arresters without spark-gaps and with a housing made of synthetic material. That is why we will no longer discuss the surge arresters with spark-gaps and porcelain housing in the present brochure.

The latest state of standards in IEC and CENELEC is taken into consideration. If considered necessary for improved understanding, other standards and publication are also used. The quoted literature is listed, thus offering the opportunity of thorough study.

Bernhard Richter, responsible for product management and quality assurance in the Division Surge Arresters of ABB Switzerland Ltd., gladly took on the task of the general revision of the brochure. He is an active member in various working groups of IEC TC 37 surge arresters (MT 4 and MT 10), CENELEC TC 37A and in the study committee SC A3 high voltage equipment of Cigré, in which he leads the "Surge Arresters" working group.

We hope that you as a reader will be satisfied with our new edition with its new appearance, and that you will find it useful for your purpose. We welcome amendments and suggestions that help us to better meet all possible customer needs.

ABB Switzerland Ltd. Wettingen, May 2011



Application guidelines

Overvoltage protection Metal oxide surge arresters in medium voltage systems



