Special Issue

Current Limiting Technologies for AC/DC Power Grids During Symmetrical and Asymmetrical Faults

Message from the Guest Editors

As a result of the continuous development of power systems, the scale and complexity of AC/DC grids have been growing steadily. With the increasing integration of high-proportion renewable energy sources, the system inertia and short-circuit current ratios are being weakened. The fault modes in power systems, whether symmetrical or asymmetrical, are becoming increasingly complex and variable. Current-limiting technology can effectively reduce short-circuit currents, thereby protecting critical equipment in the grid and extending its service life. As power electronics technology advances, novel current-limiting technologies are emerging. By synergizing with other devices, these technologies enable the rapid protective actions and effective isolation of faults. Based on actual grid operational conditions, the dynamic adjustment of current-limiting strategies optimizes resource allocation. Exploring the principles of new current-limiting technologies further enhances their intelligent level and adaptability, enabling them to meet evolving grid demands...

Guest Editors

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Symmetry is ultimately the most important concept in natural sciences. It is not surprising then that very basic and fundamental research achievements are related to symmetry. For instance, the Nobel Prize in Physics 1979 (Glashow, Salam, Weinberg) was received for a unified symmetry description of electromagnetic and weak interactions, while the Nobel Prize in Physics 2008 (Nambu, Kobayashi, Maskawa) was received for the discovery of the mechanism of spontaneous breaking of symmetry, including CP symmetry. Our journal is named *Symmetry* and it manifests its fundamental role in nature.

Editor-in-Chief

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