Conformity with standards for protection and control equipment

Product environmental exposure
Phenomena as coronas, transients from breakers etc. are common for high voltage equipment, and the high voltage apparatuses in a switchyard are producing high levels of electromagnetic radiation. ABB Automation Technology Products, Substation Automation, Västerås has a long and extensive experience of having the protection and control products exposed to this demanding environment without problems.

Intended use of the products
The products are intended for professional use of protection and/or control equipment in high voltage or high power systems with a rated voltage above 1 kV. This environment is equal to the EMC definition “Industrial environment”. The installation must always be done according to the relevant installation guide.

Installation of the products is normally made in an integrated environment with switchgear or in a specially designed control room near a switchyard where high voltage apparatuses are installed. The products can be installed in panels with locks and are normally handled only by authorized and trained personnel.

Exposed parts of the products or the panels shall normally be marked with \( \mathbb{H} \), indicating high-voltage.

Exceptions
There are products in our assortment that normally are used in light industry environment. For these products references are made in their respective technical documentation.

CE marking
Products placed on the European market has to be CE marked. The CE mark and the document Declaration of Conformity (DOC) verifies that the product complies with applicable EU Directives. If there is a requirement for specific installation measures an installation guide is issued for the product.

The Directives normally applicable to our products are:
- EMC Directive 89/336/EEC including updates
- LVD Directive 73/23/EEC including updates

Conformity with standards
The protection and control equipment supplied by ABB Automation Technology Products, Substation Automation, Västerås follow the below standards to the extent shown in the technical documentation for each product. The products are routinely tested to confirm the type test results.

This is a list of the main standards generally applicable to protection and control equipment. The specific standards valid for a specific product is stated in the technical documentation of that product.

General
- IEC 60255 Electrical relays
- IEC 60038 IEC Standard voltages
- IEC 60068 Environmental testing
- IEC 60664 Insulation co-ordination for equipment within low-voltage systems
### CE requirements

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<tr>
<td>EN 50081-2</td>
<td>Electromagnetic compatibility - Generic emission standard - Industrial environment</td>
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<tr>
<td>EN 50082-2</td>
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<td>EN 50178</td>
<td>Electronic equipment for use in power installations</td>
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<td>EN 60255-6</td>
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