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Switchgear and controlgear assembly marking

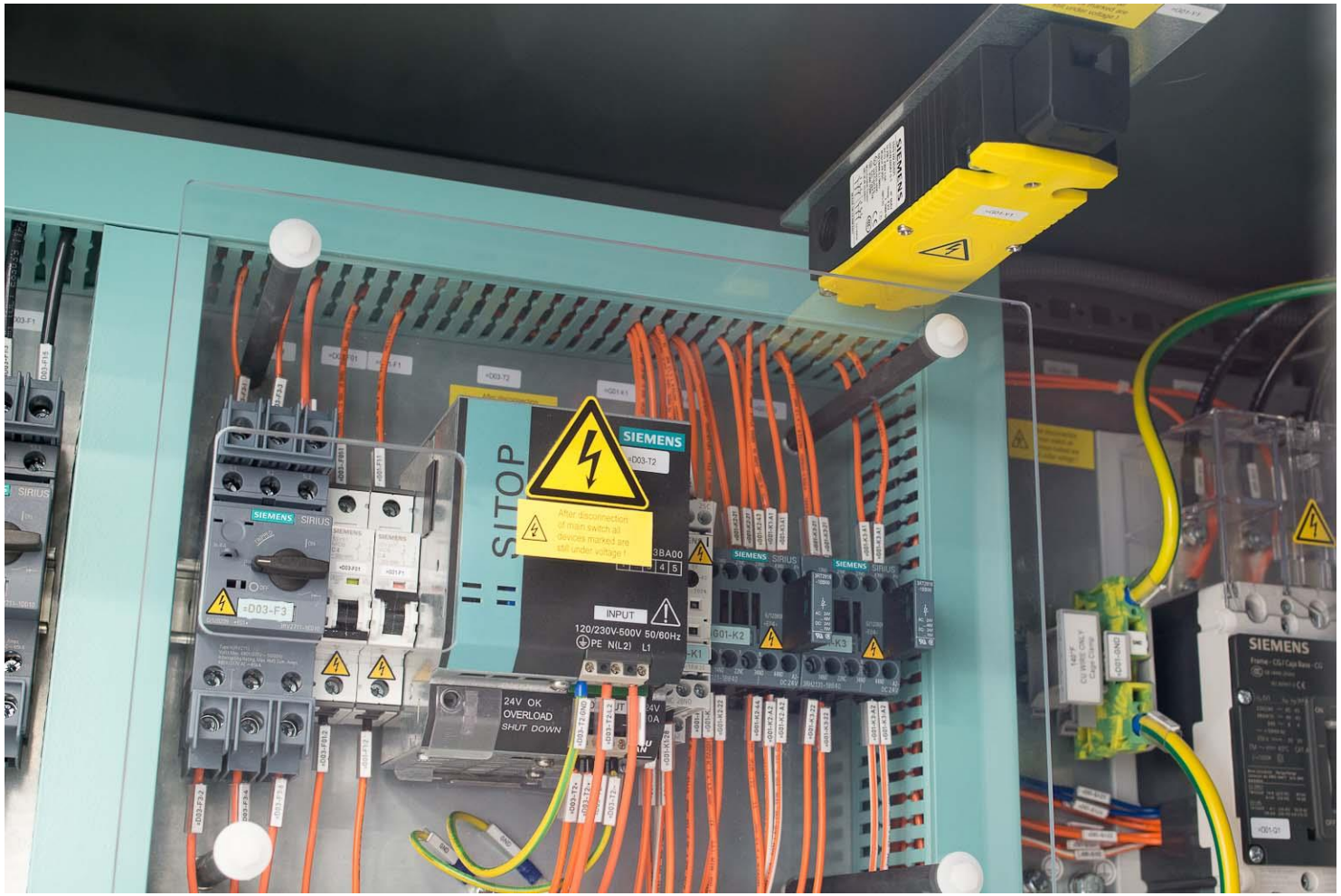
- Requirements according to IEC 60204-1
- Requirements according to IEC 61439-1

Switchgear and controlgear assembly marking

General

Markings, rating plates,
and warning signs must:

- be of sufficient durability
- attached so as to be legible



Standards: (assorted samples)
IEC 60445 - terminals, conductor terminations and conductors
IEC 60417
grapical symbols for use on equipment

Switchgear and controlgear assembly marking

Additional requirements according to IEC 60204-1 (16.4)

A rating plate is to be put on the control panel which should be easily recognizable following installation. The rating plate must be attached to the enclosure around the infeed.

- **Name or company sign of the manufacturer / supplier**
- **If necessary, approval symbols**
- **Serial number / type designation**
- **Rated voltage, number of phases, frequency (with alternating voltage), full load current for the infeed(s)**
- ***Short-circuit coordination of the equipment***
- **Number of the main documentation**

Note: Full load current under normal operating conditions (be aware of the rated diversity factor (RDF)

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Requirements according to IEC 61439-1

The manufacturer of the control panel must place one or several permanent inscriptions on each control panel so that these are legible when the control panel is connected and in operation:

- **Name or trademark of the manufacturer of the control panel**
- **Type designation / identification number, with which necessary information can be requested from the manufacturer of the control panel**
- **Marking for determining the date of manufacture**
- **IEC 61439-X (the applicable part is to be specified)**

Note:

The applicable control panel standard may determine whether further details must be specified on the identification plate

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Requirements according to IEC 61439-2

Details on the identification plate for power switchgear and controlgear assemblies

- **Name or trademark of the manufacturer of the control panel**
- **Type designation / identification number, with which necessary information can be requested from the manufacturer of the control panel**
- **Marking for determining the date of manufacture**
- **IEC 61439-2**

Example:

Manufacturer: Musterschaltschrankbau GmbH
Serial number: Power distribution board: 12345
Date of manufacture: September 2012
Switchgear and controlgear assembly complies with **IEC 61439-2**

Marking of Conductors
IEC 60204-1

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Where color-coding is used for identification of conductors (other than the protective conductor and the neutral conductor) ,the following colors may be used:

BLACK, BROWN, RED, ORANGE, YELLOW, GREEN, BLUE (including LIGHT BLUE), VIOLET, GREY, WHITE, PINK, TURQUOISE.

Marking of conductors	Color
Protective conductor	**Green / yellow**
AC & DC power circuits	**Black**
AC control circuits (operating voltage < line voltage)	**Red**
DC control circuits (operating voltage < line voltage)	**Blue**
excluded circuits (circuits which remain energized)	**Orange**
Grounded conductor of an AC line voltage circuit (Neutral)	**Light Blue**

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The ASSEMBLY manufacturer shall provide ***in documents or catalogues*** the conditions, if any, for the handling, installation, operation and maintenance of the ASSEMBLY and the equipment contained therein.

Example for a marking concerning the EMC environment:

CAUTION

This product has been designed for environment A. Use of this product in environment B may cause unwanted electromagnetic disturbances in which case the user may be required to take adequate mitigation measures.

Any questions?

Note / exclusion of liability

The typical circuit diagrams and interpretations of the standard are not binding and do not claim to be complete regarding configuration, equipment or any other eventuality. They do not represent any client-specific solutions and are only intended to offer assistance for typical tasks.

Each person viewing this presentation is responsible for the correct operation of the products described. This presentation does not relieve you of your responsibility regarding safe handling when using, installing, operating, and maintaining the equipment.

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When writing these guidelines, a lot of tables and texts were lifted straight from the relevant standards. All users of this documentation must always check whether the items quoted are still up to date or not. The final decision about the appropriateness of applying the applicable standards must be made by the user of this documentation.