

Functional Classification of Low-Voltage Complete Equipment



Article Overview

Low-voltage complete sets of equipment are classified based on function, protection level, and operational use according to IEC 61439 and appliance protection classes.

Classification by Function (IEC 61439)

Low-voltage assemblies are categorized according to their intended function and operational requirements:

- Distribution Boards (DB): Designed to distribute electrical power to various circuits, often including protection devices like circuit breakers and fuses. Subtypes include:
 - DBO (Distribution Boards for Ordinary Persons): Operated by non-qualified personnel, typically in residential or commercial settings .
 - DBN (Distribution Boards for Skilled Persons): Intended for use by trained personnel, often in industrial environments .
- Motor Control Centers (MCC): Assemblies that control and protect motors, integrating starters, contactors, and overload relays.
- Control Panels: Provide centralized control for machinery or processes, including monitoring and automation functions.
- Switchgear Assemblies: Include devices for switching, protection, and isolation of circuits, ensuring safe operation under normal and fault conditions .

Classification by Protection Level (Appliance Classes)

Electrical equipment is also classified by protection against electric shock:

Article Content

Low Voltage Switchgear and Controlgear Technical Document

This means that low-voltage switchgear must be built and tested in compliance with the requirements of IEC 60947. Furthermore,

Technical Application Papers No.11 Guidelines to the construction of a ...

When the measured values are lower than or equal to the admissible ones, the test is considered as passed for those currents, that

Low Voltage Switchgear and Controlgear Technical Document

The present document is designed to provide general technical information about the selection and application of low-voltage

Extra-low voltage

SELV, PELV, FELV, are distinguished by various safety properties, supply characteristics and design voltages. Some types of

Voltage Classification of LV, MV and HV | Orion EE Blog

Voltage Classification of LV, MV and HV In this blog, we present the definition of LV, MV and HV, the differences between voltages

Basics in low voltage distribution equipment

In some cases, more highly functional low voltage distribution equipment is needed to best protect, control and monitor critical power

IEC 61439 Low Voltage Switchgear Design: Complete 2026 Guide

Master IEC 61439 low voltage switchgear design. Learn temperature limits, short-circuit verification, and separation forms in this

Low voltage

In electrical engineering, low voltage is a relative term, the definition varying by context. Different definitions are used in electric

IEC 60038

IEC 60038 International Standard IEC 60038, IEC standard voltages, defines a set of standard nominal electricity supply voltages for

Comprehensive Overview of Low Voltage Electrical Apparatus

Detailed exploration of classification, functions, and protection mechanisms of low voltage electrical devices including sectionneurs,

Basics in low voltage distribution equipment

Low voltage distribution equipment typically operates at less than 600 volts; in contrast, medium voltage equipment affords a wider

Classification of Voltage Levels

What are Voltage Levels? Voltage levels are classifications based on the amount of electrical potential difference (voltage) in a

Understanding Voltage Classifications in Electrical Systems

□□ Understanding Voltage Classifications in Electrical Systems ✂ Correct voltage classification is essential in electrical engineering for

Low voltage electrical distribution products | Schneider Electric

Discover our full range of safe and reliable solutions for low voltage electrical distribution products and systems, including circuit

The Development Trends of Complete High and Low Voltage

High and low voltage complete electrical equipment refers to the combination of electrical components including circuit breakers,

IEC 60364-1:2025 | IEC

This document addresses the fundamental principles, assessment of general characteristics and definitions of low-voltage electrical

A Complete Guide to Low Voltage Power Cables: Applications and ...

In residential, commercial, and industrial buildings, low voltage power cables distribute electricity from switchboards or

Low-voltage switchgear fundamentals

Low-voltage switchgear fundamentals What is switchgear? Electrical switchgear refers to a centralized collection of circuit breakers,

Contact Us

For more information, pricing, or custom solutions, please contact us:

Website: <https://yachtchartercapetown.co.za>

Email: info@yachtchartercapetown.co.za

Phone: +27 21 863 4927

Address: 1st Floor, The Towers, 1 St George's Mall, Cape Town, 8001, South Africa

This document is for informational purposes only. Specifications subject to change without notice.

