

IEEE Standard Definitions for AC (52 kV and below) and DC (3.2 kV and below) Switchgear Assemblies

IEEE Power and Energy Society

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Switchgear Committee

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IEEE Std C37.20.10™-2016

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Approved 22 September 2016

IEEE-SA Standards Board

Abstract: Terms and definitions encompassing the products within the scope of ac (38 kV and below for air insulated equipment, 52 kV and below for gas insulated equipment) and dc (3.2 kV and below) power switchgear assemblies, including components for switching, interrupting, metering, protection, and regulating purposes as used primarily in connection with generation, transmission, distribution, and conversion of electric power are included in this standard.

Keywords: definitions, IEEE C37.20.10™, metal-enclosed bus, power circuit breakers, switchgear, terms

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3 Park Avenue, New York, NY 10016-5997, USA

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PDF: ISBN 978-1-5044-2402-8 STD21165
Print: ISBN 978-1-5044-2403-5 STDPD21165

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interlocked doors in front of or a part of the primary circuit compartment of the circuit switching and interrupting device so that, when the group operated isolating switches are closed, no primary parts can be exposed by the attempted opening of the interlocked doors.

- c) All live parts are enclosed within grounded metal compartments.
- d) Primary bus conductors and connections may be bare.
- e) Mechanical interlocks are provided for proper operating sequence under normal operating conditions.
- f) Secondary control devices and their wiring are isolated by grounded metal barriers from all primary circuit elements with the exception of short lengths of wire, such as at instrument transformer terminals.
- g) The doors to the secondary or mechanism compartment of the primary switching or interrupting device are to provide access to the secondary or control equipment within the housing without danger of exposure to the primary circuit parts.

NOTE 1—Auxiliary vertical sections may be required for mounting devices or for use as bus transition.

NOTE 2—This definition is included for historical purposes. Station type cubicle switchgear was formerly included in IEEE Std C37.20.2™-1993, but was removed in the 1999 edition.

stationary-mounted device: One that cannot be removed except by the unbolting of connections and mounting supports. *Compare with:* **drawout-mounted device** and **withdrawable element**.

stored-energy indicator: An indicator which visibly shows that the stored-energy mechanism is in the charged or discharged condition.

surface-mounted device: A device in which the entire body of which projects in front of the mounting surface, with no portion penetrating the mounting surface.

switchgear: A general term covering switching and interrupting devices and their combination with associated control, metering, protective, and regulating devices; also assemblies of these devices with associated interconnections, accessories, enclosures, and supporting structures, used primarily in connection with the generation, transmission, distribution and conversion of electric power.

switchgear assembly: An assembled piece of equipment (indoor or outdoor) including, but not limited to, one or more of the following: switching, interrupting, control, metering, protective, and regulating devices; together with their supporting structures, enclosures, conductors, electric interconnections, and accessories.

switching structure: An open framework supporting the main switching device and associated equipment, such as instrument transformers, buses, fuses, and connections. It may be designed for indoor or outdoor use and may be assembled with or without switchboard panels carrying the control equipment.

symmetrical component (ac component) (of a total current): That portion of the total current that constitutes the symmetry.

terminal (terminal connector): A connector for attaching a conductor to electrical apparatus.

terminal block (terminal board): An insulating base equipped with terminals for connecting secondary and control wiring.

terminal chamber: A metal-enclosed compartment that includes all necessary mechanical and electrical items to complete the connections to other equipment.