

CPC**COOPERATIVE PATENT CLASSIFICATION****H02B**

BOARDS, SUBSTATIONS, OR SWITCHING ARRANGEMENTS FOR THE SUPPLY OR DISTRIBUTION OF ELECTRIC POWER ([basic electric elements](#), their assembly, including the mounting in enclosures or on bases, or the mounting of covers thereon, see the subclasses for such elements, e.g. transformers [H01F](#) , switches, fuses [H01H](#) , line connectors [H01R](#) ; installation of lines, cables, or other conductors for supply or distribution [H02G](#))

NOTE

This subclass covers boards, switchyards, switchgear or their installation, or the association of switching devices with each other or with other devices, e.g. transformers, fuses, meters or distribution boards; such associations constitute substations or distribution points.

H02B 1/00

Frameworks, boards, panels, desks, casings; Details of substations or switching arrangements

- H02B 1/01 . Frameworks
- H02B 1/011 .. { Open support bases }
- H02B 1/012 .. { Details of mechanical connections }
- H02B 1/013 .. { Profiles for cabinet frames }
- H02B 1/014 .. { Corner connections for frameworks }
- H02B 1/015 . Boards, panels, desks; Parts thereof or accessories therefor
- H02B 2001/0155 .. Removable shutters for non-used openings
- H02B 1/03 .. for energy meters
- H02B 1/04 .. Mounting thereon of switches or of other devices in general, the switch or device having, or being without, casing
- H02B 1/041 ... { Mechanical coupling for side-by-side mounted apparatus }
- H02B 1/042 ... { Mounting on perforated supports by means of screws or locking members }
- H02B 1/043 { the perforated support having openings distributed according to a pattern }
- H02B 1/044 ... Mounting through openings
- H02B 1/048 Snap mounting
- H02B 1/052 ... Mounting on rails
- H02B 1/0523 { locked into position by a sliding member }
- H02B 1/0526 { locking or releasing devices actuated from the front face of the apparatus }
- H02B 1/056 ... Mounting on plugboards
- H02B 1/0565 { by means of an adapter carrying one or more apparatuses ([holders with sockets H01R 33/00](#)) }
- H02B 1/06 .. having associated enclosures, e.g. for preventing access to live parts ([shutters or guards for contacts H02B 1/14](#))
- H02B 1/063 ... { with tamper resistant sealing device }
- H02B 1/066 ... { with hinged covers ([covers for distribution boxes H02G 3/14](#)) }

- H02B 1/14 . Shutters or guards for preventing access to contacts ([shielding of isolating-contacts in withdrawable switchgear H02B 11/24](#))
- H02B 1/16 . Earthing arrangements ([earthing arrangements for substations H02B 5/01](#), for switchgear [H02B 11/28](#), [H02B 13/075](#); earth plates, pins, or other contacts [H01R 4/66](#))
- H02B 1/18 . Disposition or arrangement of fuses ([for switchgear having a withdrawable carriage H02B 11/26](#))
- H02B 1/20 . Bus-bar or other wiring lay-outs, e.g. in cubicles, in switchyards ([installations of bus-bars H02G 5/00](#))
- H02B 1/202 . . { [Cable lay-outs](#) }
- H02B 1/205 . . { [for connecting electrical apparatus mounted side by side on a rail](#) }
- H02B 1/207 . . { [Cross-bar layouts](#) }
- H02B 1/21 . . Bus-bar arrangements for rack-mounted devices with withdrawable units
- H02B 1/22 . . Layouts for duplicate bus-bar selection
- H02B 1/24 . Circuit arrangements for boards or switchyards ([devices for displaying diagrams H02B 15/00](#); [service supply H02J 11/00](#))

NOTE

In groups [H02B 1/26](#) to [H02B 1/56](#), in the absence of an indication to the contrary, an invention is classified in the last appropriate place.

- H02B 1/26 . Casings; Parts thereof or accessories therefor ([adapted for a single switch H01H](#) ; [enclosures for cables, lines or bus-bars H02G](#) ; [distribution, connection or junction boxes H02G 3/08](#); [casings in general H05K](#))
- H02B 1/28 . . dustproof, splashproof, drip-proof, waterproof or flameproof
- H02B 1/30 . . Cabinet-type casings; Parts thereof or accessories therefor
- H02B 1/301 . . . { [mainly consisting of a frame onto which plates are mounted](#) }
- H02B 1/303 . . . { [Bases or feet](#) }
- H02B 1/305 . . . { [Cable entries](#) }
- H02B 1/306 . . . { [Accessories, e.g. windows](#) }
- H02B 1/308 . . . { [Mounting of cabinets together](#) }
- H02B 1/32 . . . Mounting of devices therein
- H02B 1/34 Racks
- H02B 1/36 with withdrawable units
- H02B 1/38 . . . Hinged covers or doors
- H02B 1/40 . . Wall-mounted casings; Parts thereof or accessories therefor
- H02B 1/42 . . . Mounting of devices therein
- H02B 1/44 . . . Hinged covers or doors
- H02B 1/46 . . Boxes; Parts thereof or accessories therefor
- H02B 1/48 . . . Mounting of devices therein
- H02B 1/50 . . Pedestal- or pad-mounted casings; Parts thereof or accessories therefor
- H02B 1/505 . . . { [retractable installations](#) }

- H02B 1/52 . . Mobile units, e.g. for work sites
- H02B 1/54 . Anti-seismic devices or installations (for buildings in general [E04B 1/98](#); { shock absorbers [F16F](#) })
- H02B 1/56 . Cooling; Ventilation
- H02B 1/565 . . { for cabinets }
- H02B 3/00 Apparatus specially adapted for the manufacture, assembly, or maintenance of boards or switchgear**
- H02B 5/00 Non-enclosed substations; Substations with enclosed and non-enclosed equipment**
- H02B 5/01 . Earthing arrangements, e.g. earthing rods
- H02B 5/02 . mounted on pole, e.g. pole transformer substation
- H02B 5/06 . gas-insulated
- H02B 7/00 Enclosed substations, e.g. compact substations**
- H02B 7/01 . gas-insulated
- H02B 7/06 . Distribution substations, e.g. for urban network ([H02B 7/01](#) takes precedence)
- H02B 7/08 . . Underground substations
- H02B 11/00 Switchgear having carriage withdrawable for isolation**
- H02B 11/02 . Details
- H02B 11/04 . . Isolating-contacts, e.g. mountings, shieldings (shutters or guards for isolating contacts [H02B 1/14](#), [H02B 11/24](#); switch contacts [H01H](#) ; line connectors in general [H01R](#))
- H02B 11/06 . . Means for duplicate bus-bar selection (layouts for duplicate bus-bar selection [H02B 1/22](#))
- H02B 11/08 . . Oil-tank lowering means associated with withdrawal mechanism
- H02B 11/10 . . Indicating electrical condition of gear; Arrangement of test sockets
- H02B 11/12 . with isolation by horizontal withdrawal
- H02B 11/127 . . Withdrawal mechanism
- H02B 11/133 . . . with interlock (interlock for switches in general [H01H](#))
- H02B 11/167 . . truck type ([H02B 11/127](#) takes precedence)
- H02B 11/173 . . drawer type ([H02B 11/127](#) takes precedence)
- H02B 11/18 . with isolation by vertical withdrawal
- H02B 11/20 . . having an enclosure
- H02B 11/22 . . . wherein front of enclosure moves with carriage upon horizontal withdrawal

subsequent to isolation

H02B 11/24 . Shutters or guards

H02B 11/26 . Arrangements of fuses, resistors, voltage arresters or the like

H02B 11/28 . Earthing arrangements

H02B 13/00 Arrangements of switchgear in which switches are enclosed in, or structurally associated with, a casing, e.g. cubicle (in association with main transformer [H02B 5/00](#), [H02B 7/00](#); switchgear having carriage withdrawable for isolation [H02B 11/00](#))

H02B 13/005 . { [Electrical connection between switchgear cells](#) }

H02B 13/01 . with resin casing

H02B 13/02 . with metal casing

H02B 13/025 .. Safety arrangements, e.g. in case of excessive pressure or fire due to electrical defect ([for buildings in general E04B 1/94](#); [devices for opening or closing safety wings E05F 1/00](#); emergency protective circuit arrangements for distribution gear, e.g. bus-bar systems, or for switching devices [H02H 7/22](#))

H02B 13/035 .. Gas-insulated switchgear

H02B 13/0352 ... { [for three phase switchgear](#) }

H02B 13/0354 ... { [comprising a vacuum switch \(\[H02B 13/0352\]\(#\) takes precedence \)](#) }

H02B 13/0356 ... { [Mounting of monitoring devices, e.g. current transformers](#) }

H02B 13/0358 ... { [Connections to in or out conductors \(\[connectors in general H01R\]\(#\) \)](#) }

H02B 13/045 ... Details of casing, e.g. gas tightness ([gas reservoirs for switches H01H 33/56](#))

H02B 13/055 ... Features relating to the gas ([selection of fluids for switches H01H 33/22](#))

H02B 13/065 ... Means for detecting or reacting to mechanical or electrical defects ([for switches H01H 9/50](#), [H01H 33/26](#), [H01H 33/53](#))

H02B 13/0655 { [through monitoring changes of gas properties](#) }

H02B 13/075 ... Earthing arrangements

H02B 13/08 . with stone, brick or concrete casing

H02B 15/00 Supervisory desks or panels for centralised control or display ([desks in general A47B](#))

H02B 15/02 . with mimic diagrams

H02B 15/04 .. consisting of building blocks