

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