

**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 <a href="#">E04B 1/98</a> ; { shock absorbers <a href="#">F16F</a> })
H02B 1/56	.	Cooling; Ventilation
H02B 1/565	..	{ for cabinets }
<b>H02B 3/00</b>		<b>Apparatus specially adapted for the manufacture, assembly, or maintenance of boards or switchgear</b>
<b>H02B 5/00</b>		<b>Non-enclosed substations; Substations with enclosed and non-enclosed equipment</b>
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
<b>H02B 7/00</b>		<b>Enclosed substations, e.g. compact substations</b>
H02B 7/01	.	gas-insulated
H02B 7/06	.	Distribution substations, e.g. for urban network ( <a href="#">H02B 7/01</a> takes precedence)
H02B 7/08	..	Underground substations
<b>H02B 11/00</b>		<b>Switchgear having carriage withdrawable for isolation</b>
H02B 11/02	.	Details
H02B 11/04	..	Isolating-contacts, e.g. mountings, shieldings (shutters or guards for isolating contacts <a href="#">H02B 1/14</a> , <a href="#">H02B 11/24</a> ; switch contacts <a href="#">H01H</a> ; line connectors in general <a href="#">H01R</a> )
H02B 11/06	..	Means for duplicate bus-bar selection (layouts for duplicate bus-bar selection <a href="#">H02B 1/22</a> )
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