Claims

[Claim 1]

A vacuum insulation switchgear comprising:

a cabinet including a switching device section with an operation mechanism portion placed thereunder, a bus section in which a bus is placed, a cable section in which a cable is placed, and a control section, each of the sections being partitioned by a grounded metal plate;

a mold switch installed in the switching device section and obtained by integrally molding a vacuum break switch having an interrupting function and a three-position disconnecting switch having a disconnection/earthing function, the switches being operated by the operation mechanism portion;

a mold switch securing member securing the mold switch in the cabinet; and

a switching device support member supporting and securing the mold switch securing member,

in which vacuum insulation switchgear, the bus section is formed above the central part of the cabinet, the switching device section is formed below the bus section, the cable section is formed on the rear face side of the cabinet, and the control section is formed on the front face side of the cabinet and a bus-side bushing projected in

the height direction of the mold switch and the bus are connected with each other and a cable-side bushing projected in the horizontal direction of the mold switch and the cable are connected with each other, the vacuum insulation switchgear being characterized in that:

the spacing between the mold switch and the operation mechanism portion placed thereunder is shorter than the length of the bus-side bushing projected in the height direction of the mold switch.

[Claim 2]

The vacuum insulation switchgear according to Claim 1, characterized in that:

the mold switch securing member is connected with the switching device support member by a connectable/removable fastening member.

[Claim 3]

The vacuum insulation switchgear according to Claim 2, characterized in that:

the three mold switches are arranged in three rows with an interphase grounded metal plate placed in-between and the mold switch securing member is connected with the interphase grounded metal plate by a removable fastening member.

[Claim 4]

The vacuum insulation switchgear according to Claim 2 or 3, characterized in that:

the fastening member is a bolt.

[Claim 5]

A method for replacing a mold switch obtained by integrally molding a vacuum break switch having an interrupting function and a three-position disconnecting switch having a disconnection/earthing function, the switches being installed in a switching device section partitioned by a grounded metal plate and operated by an operation mechanism portion placed thereunder, in which mold switch, a bus-side bushing projected in the height direction and a bus are connected with each other and a cable-side bushing projected in the horizontal direction and a cable are connected with each other, the method being characterized in that:

when the mold switch is replaced, the connection between the bus-side bushing and the bus and the connection between the cable-side bushing and the cable are removed, the fastening of a mold switch securing member securing the mold switch in a cabinet and the fastening of a switching device support member supporting and securing the mold switch securing member are removed, thereafter, the mold switch securing member is pulled upward by equal to or more than the projecting size of the bus-side bushing in the height direction, subsequently, the mold switch is pulled out in the horizontal direction and taken out of switchgear, and then a mold switch for replacement is installed in the switching device section by procedures reversing the above.

[Claim 6]

The method for replacing a mold switch according to Claim 5, characterized in that:

the fastening between the mold switch and the mold switch securing member and the fastening between the mold switch securing member and the switching device support member are implemented by a connectable/removable bolt.

CLAIMS

1. A vacuum insulation switchgear comprising:
a cabinet (1) including
a switching device section (1b) with
an operation mechanism portion (10) placed thereunder,
a bus section (1a) in which a bus (5) is placed,
a cable section (1c) in which a cable (3) is placed, and
a control section (1d), each of the sections being partitioned by a grounded metal plate;
a mold switch (20) installed in the switching device section (1b) and obtained by integrally molding
a vacuum break switch (8) having an interrupting function and
a three-position disconnecting switch (9) having a disconnection/earthing function, the switches being operated by the operation mechanism portion (10);
a mold switch securing member (21) securing the mold switch in the cabinet (1); and
a switching device support member (24) supporting and securing the mold switch securing member (21);
in which vacuum insulation switchgear, the bus section (1a) is formed above the central part of the cabinet (1),
the switching device section (1b) is formed below the bus section (1a),
the cable section (1c) is formed on the rear face side of the cabinet (1), and
the control section (1d) is formed on the front face side of the cabinet (1) and
a bus-side bushing (25) projected in the height direction of the mold switch (20) and the bus (5) are connected with each other and
a cable-side bushing (26) projected in the horizontal direction of the mold switch (20) and the cable (3) are connected with each other;
wherein the spacing between the mold switch (20) and the operation mechanism portion (10) placed thereunder is shorter than a length (L) of the bus-side bushing (25) projected in the height direction of the mold switch (20);
characterized in that the mold switch securing member (21) is removably connected to the switching device support member (24) by a removable fastening member (22), and that
the mold switch securing member (21) is configured such that it can be pulled upward by an amount equal to or larger than the length (L) of the bus-side bushing (25) projected in the height direction of the mold switch (20).

2. The vacuum insulation switchgear according to Claim 1 , characterized in that:
the three mold switches (20) are arranged in three rows with an interphase metal plate (23) placed in-between and the mold switch securing member (21) is connected with the interphase grounded metal plate (23) by a removable fastening member (22).

3. The vacuum insulation switchgear according to Claim 1 or 2, characterized in that:
the fastening member (22) is a bolt.

4. A method for replacing a mold switch (20) obtained by integrally molding
a vacuum break switch (8) having an interrupting function and
a three-position disconnecting switch (9) having a disconnection/earthing function,
the switches (8, 9) being installed in a switching device section (1b) partitioned by a grounded metal plate and operated by an operation mechanism portion (10) placed thereunder, in which mold switch (20),

a bus-side bushing (25) projected in the height direction and a bus (5) are connected with each other and a cable-side bushing (26) projected in the horizontal direction and a cable (3) are connected with each other, the method being characterized in that:

when the mold switch (20) is replaced, the connection between the bus-side bushing (25) and the bus (5) and the connection between the cable-side bushing (26) and the cable (3) are removed,

the fastening of a mold switch securing member (21) securing the mold switch (20) in a cabinet (1) and the fastening of a switching device support member (24) supporting and securing the mold switch securing member (21) are removed,

thereafter, the mold switch securing member (21) is pulled upward by equal to or more than the length (L) of the bus-side bushing (25) projected in the height direction of the mold switch (20),

subsequently, the mold switch (20) is pulled out in the horizontal direction and taken out of the switchgear, and

then a mold switch (20) for replacement is installed in the switching device section (1b) by procedures reversing the above.

5. The method for replacing a mold switch (20) according to Claim 4, characterized in that:

the fastening between the mold switch (20) and the mold switch securing member (21) and the fastening between the mold switch securing member (21) and the switching device support member (24) are implemented by a connectable/removable bolt.