## Application

Bree Vacuum Load-Break Switches play the primary role of maximizing the operation of the capacitor bank. It is designed to ensure a service life above 10,000 operations, which leads to a large reduction in the maintenance time of the equipment.

Bree switches are manufactured at a dedicated plant and in accordance with the ANSIC37.66 standard. They are supplied along with a set of cables and connectors that are key for their operation:

| EQUIPMENT INCLUDED WITH EACH VACUUM SWITCH |  |
| :--- | ---: |
| Control | $\ominus$ |
| Hoisting ring | $\ominus$ |
| Grounding terminal | $\ominus$ |
| Command and signaling cable | $\ominus$ |
| Handle for manual opening and closing | $\ominus$ |
| Interconnection and operation box | $\ddots$ |
| Auxiliary contacts | Up to 6NO and 6NC |

Important Information

| ELECTRICAL COMMAND SPECIFICATIONs |  |
| :--- | ---: |
| Drive voltage | 220Vac or 125Vdc |
| Opening time | Below 45ms |
| Closing time | Below 75ms |
| Waiting time between tripping operations 3 min. after opening) |  |

## Design Features

All of our switches are manufactured as per the following technical specifications:

- Room temperature: $-40^{\circ} \mathrm{C}$ to $+85^{\circ} \mathrm{C}$. With a daily amplitude of $25^{\circ} \mathrm{C}$;
- Installation altitude: 1,000 AMSL; (call us for higher altitudes)
- Pollution class: IV;
- Maximum wind speed: $35 \mathrm{~m} / \mathrm{s}$ with no intense vibration.



# Vacuum Load-Break Switches 

Command and Contact Electrical Diagram


## Vacuum Load-Break Switches

(Front view)

(Side view)


## (Top view)



| NOMINAL <br> VOLTAGE |  | A | B | C | D | E |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| F |  |  |  |  |  |  |
| 15KV with 110KV BIL | 893 | 360 | 491 | 583 | 1.040 | 160 |
| 36KV with 170KV BIL | 917 | 435 | 491 | 584 | 1.110 | 160 |
| 38KV with 200KV BIL | 1.624 | 460 | 581 | 1.278 | 960 | 330 |

Main Technical Information of the Vacuum Load-Break Switches

| No. | ITEM |  | UNIT | DATA |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | Nominal voltage |  | kV | 15 | 27 | 38 |
| 2 | Corrente nominal |  | A | 630 |  |  |
| 3 | Nominal frequency |  | Hz | 50/60 |  |  |
| 4 | Rated withstand voltage at nominal frequency | Dry | kV | 60 | 79 | 80 |
|  |  | Under rain |  | 55 | 65 | 70 |
| 5 | Impulse withstand voltage |  | kV | 110 | 150 | 170 |
| 6 | Symmetrical short-circuit current (1s) |  | kA | 25 | 25 | 31,5 |
| 7 | Asymmetrical short-circuit current (peak) |  | kA | 65 | 65 | 81,9 |
| 8 | Maximum switching current for the capacitor bank |  | A | 630 |  |  |
| 9 | Maximum switching current for the capacitor bank (back to back) |  | A | 400 |  |  |
| 10 | Expected service life |  | - | 10.000 switching operations |  |  |

