

SCB 10

Control Box for Sectionalisers

The SCB 10 is an efficient and reliable unit for fast isolation of a faulty part on a MV distribution line. It operates either autonomously by automatic opening of the downstream line or in the connection with the control centre which is controlling the fault-isolation process. By using the SCB 10, duration of outages and number of unnecessary reclosings are drastically reduced. The results: decreased costs associated with unreliable network and increased service quality.

The complete Sectionalisher consists of Control Box SCB 10, motorized MV line switch with current transformers and potential transformer for auxiliary supply of the equipment.

Control Box

The following devices are installed in the Control box:

- Fault current indicator KI 20 with surge arresters between the device and CTs
- Power supply unit with AC/DC converter and sealed lead battery
- Surge arresters for supply voltage
- Wiring with fuses and relays



Fault detection

The fault-current detection is based on the measurement of line's phase and residual current by using 3 current transformers (CT) installed on the MV switch bushings. CTs are connected to the fault-current indicator KI 20 in the SBC 10.

The device's versatility is ensured by the possibility of adjusting to different operating conditions of the MV line and upstream protection relay.

Numerous operating parameters can be set in order to achieve device's optimal match with MV line operation:

- detection sensitivity for short-circuit ($I>$) and earth fault ($I0>$)
- time delay of fault-indication, separately for $I>$ and $I0>$
- number of autoreclosing cycles before opening, etc

The device's parametrization and transmission of measurement results, alarms and information on faults, stored in the in-built memory, can be applied by a portable personal computer or remotely by the control centre.

For more information please refer the brochure for KI 20.

Automatic operation

The device executes HV switch opening after the following conditions are met:

- the fault current passage is detected,
- the predetermined number of reclosing cycles are executed by the upstream circuit breaker (adjustable 1 to 4),
- the MV is not present.

The Control Box is designed for mounting on the line's pole or in a substation. The housing enables protection of the control equipment against severe weather conditions.

