Installation and operation instructions

STOTZ Residual Current Operated Circuit Breaker with Overcurrent Release FS 452
RCBO according to DIN VDE 0664 Part 2 and EN 61009

GH F450 7003 P2

Residual Current Operated Circuit Breaker with Overcurrent Release (RCBO)

type FS 452 "multiSTOTZ"

for alternating and pulsating d.c. fault currents

ambient temperatures
T_{\text{max}} + 55 °C, T_{\text{min}} – 25 °C

short circuit protection: 6000 A
let through energy limiting class: 3

surge current withstand capacity: 250 A
(pulse shape 8/20 according to DIN VDE 0432 Part 2)

Connection

Incoming supply is connected by means of "Safe Connect" plug-in technology.

In the outgoing circuit ensure that the conductors are properly and firmly connected. Max. tightening torque = 2.5 Nm.

Caution: Installation and removal must be carried out by authorised personnel only.

Operation

operating lever position indicator

<table>
<thead>
<tr>
<th>closing operation</th>
<th>opening operation</th>
</tr>
</thead>
<tbody>
<tr>
<td>black &quot;I - ON&quot;</td>
<td>&quot;0 - OFF&quot;</td>
</tr>
</tbody>
</table>

Technical data

see nameplate

Maximum back-up fuse

Protection provided by maximum back-up fuses is only required in cases where the short-circuit current occurring at the mounting position can be expected to exceed the indicated rated switching capacity.

<table>
<thead>
<tr>
<th>FS 452</th>
<th>max. back-up fuse</th>
</tr>
</thead>
<tbody>
<tr>
<td>rated current</td>
<td>selective main circuit breaker S 700 E</td>
</tr>
<tr>
<td>I_{n} / A</td>
<td>I_{r} / A</td>
</tr>
<tr>
<td>6</td>
<td>100</td>
</tr>
<tr>
<td>10 ... 40</td>
<td>100</td>
</tr>
</tbody>
</table>

Operating test

Device must be switched on and system voltage must be applied, press "T" test button briefly; the switch must respond immediately (black operating lever in "0-ON" position).

Operating tests should be carried out regularly, approximately once every month.
**Test of effectiveness of protection**

Apart from the RCBO operating test, test the effectiveness of the protection of the installation according to the applicable code of practice.

The maximum permissible earth/electrode resistance values for protection against indirect contact are as follows:

<table>
<thead>
<tr>
<th>max. permissible touch voltage $U_t$</th>
<th>max. permissible earth/electrode resistance if rated residual current $I_{tr}$</th>
</tr>
</thead>
<tbody>
<tr>
<td>30 mA</td>
<td>300 mA</td>
</tr>
<tr>
<td>25 V</td>
<td>833 $\Omega$</td>
</tr>
<tr>
<td>50 V</td>
<td>1666 $\Omega$</td>
</tr>
</tbody>
</table>

**Cleaning**

Dirty RCBOs may be cleaned with a damp cloth moistened with soapy water if dry cleaning is impossible. Never use caustic detergents or solvents.

**Maintenance**

Except for the regular operating test, no further maintenance measures need to be observed.

**Malfunctioning**

Where damage occurs (caused by e.g. transport, storage) repair work is not permissible.

If the device responds immediately after putting the RCBO into operation, check the downstream active circuit and any connected current-consuming apparatus for earth fault current or short circuit.

Where none of the above causes apply, and the device is still actuated when switched on, or if the operating test is completed unsuccessfully after pressing the test button, the RCBO must be replaced.

Opening the device will lead to a loss of warranty.