Type 1 + 2 SPD's have characteristics of type 1 but also type 2, they are capable of discharging a very high lightning current (T1 10/350μs) and they have as well a low residual voltage (Up). They are installed in the main distribution switchboard but also in sub-distribution board.

Because of their power, Type 1 + 2 SPD's can let pass through a too high residual voltage, if the announced Up is not compatible with the withstand voltage of the equipment to protect or if the cable length to the equipment is longer than 10m, another level of coordination with OVR T2-T3, OVR T3 will be needed.

Thanks to the patented Safety Reserve system, you can extend the lifespan of the installation plan maintenance to reduce downtime risk.

- Patented QuickSafe ® technology
- Safety Reserve system
- Din rail mounting
- Pluggable
- Improved safety
- Back up protection up to 160 A Fuse or 125 A Mcb

### Key characteristics

<table>
<thead>
<tr>
<th>Protection mode</th>
<th>L-N/L-PE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of protected lines</td>
<td>1</td>
</tr>
<tr>
<td>Test class</td>
<td>I-III</td>
</tr>
<tr>
<td>Integrated thermal disconnector</td>
<td>Yes</td>
</tr>
<tr>
<td>End of life indicator</td>
<td>Yes</td>
</tr>
<tr>
<td>Safety reserve</td>
<td>Yes</td>
</tr>
</tbody>
</table>

### Electrical characteristics

- **Nominal discharge current**: \(I_T \ (8/20)\) kA 20
- **Maximal discharge current**: \(I_{\text{max}} \ (8/20)\) kA 80
- **Impulse current**: \(I_{\text{imp}} \ (10/350)\) kA 12.5
- **Maximal continuous operating voltage**: \(U_{\text{C}}\) V 440
- **Maximal continuous operating voltage d.c**: \(U_{\text{C,dc}}\) V 500

### Type of current / frequency

- a.c.: 47/63

### Voltage protection level at \(I_n\)

- L-N PE: \(U_{\text{C}}\) kV 1.7
- L-N: \(U_{\text{C}}\) kV 1.7
- L-N PE: \(U_{\text{C}}\) kV –

### Short circuit withstand

- \(I_{\text{SCCR}}\) kA 7.7

### Total current

- \(I_{\text{TOTAL}}\) kA 12.5

### Follow current interrupted

- \(I_{\text{f}}\) kA 7

### Ground residual current

- \(I_{\text{PE}}\) μA \(< 1000\)

### TOV withstand (L-N : 5s / N-PE : 200 ms)

- \(U_{\text{T}}\) V 241 ±

### Required thermal/back up protection

- \(U_{\text{OC}}\) kV –

### Voltage Combination Wave

### Circuit breaker

- Type 1 + 2 SPD's have characteristics of type 1 but also type 2, they are capable of discharging a very high lightning current (T1 10/350μs) and they have as well a low residual voltage (Up).

- They are installed in the main distribution switchboard but also in sub-distribution board.

- Because of their power, Type 1 + 2 SPD's can let pass through a too high residual voltage, if the announced Up is not compatible with the withstand voltage of the equipment to protect or if the cable length to the equipment is longer than 10m, another level of coordination with OVR T2-T3, OVR T3 will be needed.

- Thanks to the patented Safety Reserve system, you can extend the lifespan of the installation plan maintenance to reduce downtime risk.

### Mechanical characteristics

- **Dimensions**: H x W x D mm 95x35.6x69.4
- **Wire range**: Solid wire mm² 2.5 – 35
- **Stripping length**: mm 12.5
- **Packing quantities**: piece Pe 1

### Miscellaneous characteristics

- **Maximal altitude**: m 2,100
- **Weight**: g 200
- **Response time**: ms 2.25
- **Fire resistance according to UL 94**: V-0

### Replacement cartridges

- **Phase / Product ID**: OVR T1-T2 12.5-440s C QS 2CTB815710R5500
- **Neutral / Product ID**: 2CTB815710R5500

![ABB Logo](image-url)

**Power and productivity for a better world™**