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

### Type

<table>
<thead>
<tr>
<th>Type</th>
<th>T1-T2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tmax</td>
<td>80 kA</td>
</tr>
<tr>
<td>lmin</td>
<td>12.5 kA</td>
</tr>
</tbody>
</table>

### Up

- 1.4 kV

### System

- TN-S: 220/400 V

### Electrical characteristics

<table>
<thead>
<tr>
<th>Nominal discharge current</th>
<th>In (8/20) ka</th>
<th>20</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximal discharge current</td>
<td>Imin (8/20) ka</td>
<td>80</td>
</tr>
<tr>
<td>Impulse current</td>
<td>Iimp (10/350) ka</td>
<td>12.5</td>
</tr>
<tr>
<td>Maximal continuous operating voltage</td>
<td>Ul  d.c</td>
<td>275</td>
</tr>
<tr>
<td>Maximal continuous operating voltage</td>
<td>Ul max  d.c</td>
<td>300</td>
</tr>
</tbody>
</table>

### Type of current / frequency

- a.c. 47-63 Hz

### Voltage protection level at In

- Ul (L-PE) kV | 1.4
- Ul (L-N) kV | 1.4
- Voltage protection level at In | Ul (N-PE) kV | 1.4
- Short circuit withstand | Is (OVR) kA | 400
- Total current | Iimp | 50
- Impulse current interrupted | Iimp | 7
- Ground residual current | Ires | μA
- TOV withstand (L-N : 5s / N-PE : 200 ms) | Ul | 3,37 kV
- Voltage Combination Wave | Uref | kV

### Key characteristics

- Protection mode: L-N/PE/N-PE
- Number of protected lines: 4
- Test class: I° II
- End of life indicator: Yes
- Safety reserve: Yes
- Nominal discharge current: In (8/20) ka
- Maximal discharge current: Imin (8/20) ka
- Impulse current: Iimp (10/350) ka
- Maximal continuous operating voltage: Ul

### Nominal discharge current

- 80 kA

### Impulse current

- 12.5 kA

### Maximal continuous operating voltage

- Ul (L-PE): 275 kV
- Ul (L-N): 300 kV

### Mechanical characteristics

- Dimensions: H x W x D mm: 88 x 120 x 54
- Wire range: solid wire: 2.5 ... 35
- Wire range: stranded wire: 2.5 ... 25
- Stripping length mm: 12.5
- Packing quantities: piece

### Miscellaneous characteristics

- Nominal discharge current: 2.5 mm²
- Maximal residual voltage: 275 kV
- Weight: 600 g
- Response time: 1.25 s
- Fire resistance according to UL 94: V-0

### Replacement cartridges

<table>
<thead>
<tr>
<th>Phase / Product ID</th>
<th>OVR T1-T2 12.5-275s C QS 2CTB815710R2600</th>
<th>OVR T1-T2 12.5-275s C QS 2CTB815710R2600</th>
</tr>
</thead>
<tbody>
<tr>
<td>Neutral / Product ID</td>
<td>OVR T1-T2 12.5-275s C QS 2CTB815710R2600</td>
<td>OVR T1-T2 12.5-275s C QS 2CTB815710R2600</td>
</tr>
</tbody>
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### Power and productivity for a better world™

ABB