Combined Category D, C, B tested protector (to BS EN 61643) suitable for twisted pair signalling applications which require either a lower in-line resistance, an increased current or a higher bandwidth than the OVR D Series. Also suitable for DC power applications less than 1.25 Amps. Available for working voltages of up to 6, 15, 30, 50 and 110 Volts. For use at boundaries up to LPZ 0 to protect against flashover (typically the service entrance location) through to LPZ 3 to protect sensitive electronic equipment.

Features & benefits
- Very low let-through voltage (enhanced protection to IEC/BS EN 62305) between all lines - Full Mode protection
- Full Mode design capable of handling partial lightning currents as well as allowing continual operation of protected equipment
- Repeated protection in lightning intense environments
- Very low (1 Ω) in-line resistance allows resistance critical applications (e.g. alarm loops) to be protected
- High (1.25 A) maximum running current
- High bandwidth enables higher frequency (high traffic or bit rate) data communications
- Screen terminal enables easy connection of cable screen to earth
- Strong, flame retardant, ABS housing
- Built-in DIN rail foot for simple clip-on mounting to top hat DIN rails
- Colour coded terminals give a quick and easy installation check - grey for the dirty (line) end and green for clean
- Substantial earth stud to enable effective earthing
- Supplied ready for flat mounting on base or side
- Integral earthing plate for enhanced connection to earth via OVR CME kit

Application
Use these units to protect resistance sensitive, higher frequency or running current systems, e.g. high speed digital communications equipment or systems with long signal lines.

Installation
Connect in series with the data communication or signal line either near where it enters or leaves the building or close to the equipment being protected (e.g. within its control panel). Either way, it must be very close to the system's earth star point. Install protectors either within an existing cabinet/cubicle or in a separate enclosure.

NOTE: Slim Line (OVR SL) and ATEX (OVR SLX) are available. For many twisted pair data and signal applications, the lower cost OVR D Series may be suitable. For applications requiring higher current (1.25 A to 4 A) or ultra-low in-line resistance, the OVR H Series protectors may be more suitable.
## OVR E Series - Technical specification

### Electrical specification

<table>
<thead>
<tr>
<th>ABB order code</th>
<th>OVR 06E</th>
<th>OVR 15E</th>
<th>OVR 30E</th>
<th>OVR 50E</th>
<th>OVR 110E</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nominal voltage</td>
<td>6 V</td>
<td>15 V</td>
<td>30 V</td>
<td>50 V</td>
<td>110 V</td>
</tr>
<tr>
<td>Maximum working voltage</td>
<td>5 V / 7.79 V</td>
<td>11 V / 16.7 V</td>
<td>25 V / 36.7 V</td>
<td>40 V / 56.7 V</td>
<td>93 V / 132 V</td>
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<tr>
<td>Current rating (signal)</td>
<td>1.25 A</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>In-line resistance (per line ±10%)</td>
<td>1.0 Ω</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Bandwidth (-3 dB 50 Ω system)</td>
<td>45 MHz</td>
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</tbody>
</table>

### Transient specification

- **C2 test** 4 kV 1.2/50 μs to BS EN/EN/IEC 61643-21:
  - OVR 06E: 36.0 V
  - OVR 15E: 39.0 V
  - OVR 30E: 60.0 V
  - OVR 50E: 86.0 V
  - OVR 110E: 180 V

- **C1 test** 1 kV, 1.2/50 μs, 0.5 kA 8/20 μs to BS EN/EN/IEC 61643-21:
  - OVR 06E: 26.2 V
  - OVR 15E: 28.0 V
  - OVR 30E: 49.0 V
  - OVR 50E: 73.5 V
  - OVR 110E: 170 V

- **B2 test** 4 kV 10/700 μs to BS EN/EN/IEC 61643-21:
  - OVR 06E: 16.0 V
  - OVR 15E: 25.5 V
  - OVR 30E: 43.5 V
  - OVR 50E: 65.0 V
  - OVR 110E: 160 V

- **5 kV, 10/700 μs**
  - OVR 06E: 17.0 V
  - OVR 15E: 26.2 V
  - OVR 30E: 44.3 V
  - OVR 50E: 65.8 V
  - OVR 110E: 165 V

### Mechanical specification

- **Temperature range**: -40 to +80 °C
- **Connection type**: Screw terminal - maximum torque 0.5 Nm
- **Conductor size (stranded)**: 2.5 mm²
- **Earth connection**: M6 stud
- **Case material**: FR Polymer UL-94 V-0
- **Weight**: 0.08 kg
- **Dimensions**: See diagram below

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(1) Nominal voltage (RMS/DC or AC peak) measured at < 10 μA (OVR 15E, OVR 30E, OVR 50E, OVR 110E) and < 200 μA (OVR 06E)

(2) Maximum working voltage (RMS/DC or AC peak) measured at < 5 mA leakage (OVR 15E, OVR 30E, OVR 50E, OVR 110E) and < 10 mA (OVR 06E)

(3) The maximum transient voltage let-through of the protector throughout the test (±10%), line to line & line to earth, both polarities. Response time < 10 ns


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### ABB order codes

<table>
<thead>
<tr>
<th>Part</th>
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</tr>
</thead>
<tbody>
<tr>
<td>OVR CME4</td>
<td>7TCA085400RO414</td>
<td>OVR WBX4</td>
<td>7TCA085410RO048</td>
<td>OVR WBX4/G5</td>
<td>7TCA085410RO049</td>
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<td>OVR CME8</td>
<td>7TCA085400RO415</td>
<td>OVR WBX8</td>
<td>7TCA085410RO050</td>
<td>OVR WBX8/G5</td>
<td>7TCA085410RO051</td>
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<td>OVR CME16</td>
<td>7TCA085410RO415</td>
<td>OVR CME32</td>
<td>7TCA085410RO046</td>
<td>OVR WBX16/2/5</td>
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