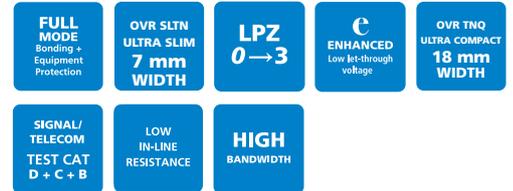


Data & signal protection

OVR TN, TNQ & SL TN Series



Combined Category D, C, B tested protector (to BS EN 61643) specifically designed for telecommunications applications in accordance with Telcordia and ANSI standards (see Application Note OVR AN005). For use at boundaries up to LPZ 0 to protect against flashover (typically the service entrance location) through to LPZ 3. Available as standard OVR TN format, or compact OVR TNQ and Slim Line OVR SL TN versions for installations where a high number of lines require protection.



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
- 20 MHz bandwidth greatly exceeds VDSL2+ (50Mbps ~ 7MHz) maximum speeds
- Low in-line resistance minimizes reductions in signal strength
- Built-in DIN rail foot for simple mounting to top hat DIN rails
- Convenient earthing through DIN foot and/or earth terminal
- OVR TN can be flat mounted on base or side
- OVR TN and OVR TNQ have colour coded terminals for quick and easy installation check
- OVR SL TN has ultra slim 7 mm width ideal for compact protection of large numbers of lines (e.g. process control installations)
- OVR SL TN includes two stage removable protection module with simple quick release mechanism allowing partial removal for easy line commissioning and maintenance as well as full removal for protection replacement
- OVR SL TN includes optional LED status indication (add L suffix to part number - i.e. OVR SL TNL)

Application

Connect in series with the signal line either near where it enters or leaves the building or close to the equipment being protected ensuring it is very close to the system's earth star point. Install protectors either within an existing cabinet/cubicle or in a separate enclosure.

Accessories

Replacement module for OVR SL TN: **OVR SLTN/M** Standard module replacement

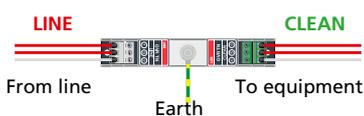
Combined Mounting/Earthing kits for OVR RS485:

- OVR CME 4** For up to 4 x OVR TN
- OVR CME 8** For up to 8 x OVR TN
- OVR CME 16** For up to 16 x OVR TN
- OVR CME 32** For up to 32 x OVR TN

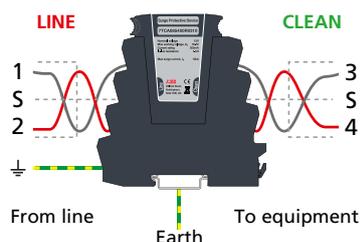
If protectors cannot be incorporated within an existing panel or enclosure, **OVR WBX** enclosures are available for up to 4, 8, 16 or 32 protectors and their associated **OVR CME** kit.

Weatherproof enclosure: **OVR WBX SLQ** (OVR SLTN and OVR TNQ)

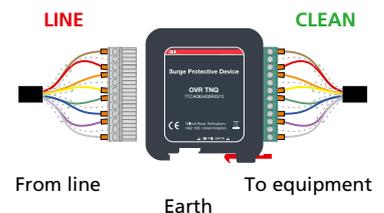
OVR TN installed in series



OVR SL TN installed in series



OVR TNQ installed in series (in-line)



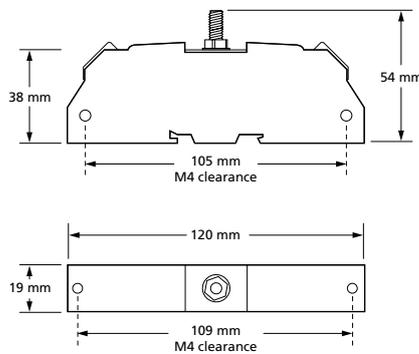
NOTE: The OVR KT Series is also available for telecommunications application using LSA-PLUS disconnection modules. Plug-in solutions are also available for RJ11 connections (see OVR TN RJ11 Series).

OVR TN, TNQ & SL TN Series - Technical specification

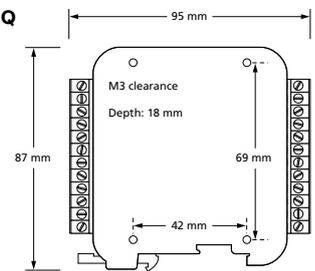
Electrical specification	OVR TN	OVR SL TN , OVR SL TNL	OVR TNQ
ABB order code	7TCA085400R0345	7TCA085400R0323, 7TCA085400R0418	7TCA085400R0344
Nominal voltage ⁽¹⁾	-		
Maximum working voltage U_c (RMS/DC) ⁽²⁾	- / 296 V		
Current rating (signal)	300 mA		
In-line resistance (per line $\pm 10\%$)	4.4 Ω		
Bandwidth (-3 dB 50 Ω system)	20 MHz		
Transient specification	OVR TN	OVR SL TN , OVR SL TNL	OVR TNQ
Let-through voltage (all conductors)⁽³⁾ Up			
C2 test 4 kV 1.2/50 μ s, 2 kA 8/20 μ s to BS EN/EN/IEC 61643-21	395 V		
C1 test 1 kV, 1.2/50 μ s, 0.5 kA 8/20 μ s to BS EN/EN/IEC 61643-21	390 V		
B2 test 4 kV 10/700 μ s to BS EN/EN/IEC 61643-21	298 V		
5 kV, 10/700 μ s ⁽⁴⁾	300 V		
Maximum surge current			
D1 test 10/350 μ s to BS EN/EN/IEC 61643-21:	- Per signal wire - Per pair	2.5 kA 5 kA	1.25 kA 2.5 kA
8/20 μ s to ITU-T K.45:2003, IEEE C62.41.2:2002:	- Per signal wire - Per pair	10 kA 20 kA	2.5 kA 5 kA
Mechanical specification	OVR TN	OVR SL TN , OVR SL TNL	OVR TNQ
Temperature range	-40 to +80 $^{\circ}$ C		
Connection type	Screw terminal - max. torque 0.5 Nm	Screw terminal - max. torque 0.8 Nm	Pluggable 12 way screw terminal - max. torque 0.6 Nm
Conductor size (stranded)	2.5 mm ²	4 mm ²	2.5 mm ²
Earth connection	M6 stud	Via DIN rail or 4 mm ² earth terminal - max. torque 0.8 Nm	Via DIN rail or M5 threaded hole in base of unit
Case Material	FR Polymer UL-94 V-0		
Weight	0.08 kg	0.08 kg	0.1 kg
Dimensions	See diagram below		

- ⁽¹⁾ Nominal voltage (RMS/DC or AC peak) measured at < 10 μ A
- ⁽²⁾ Maximum working voltage (RMS/DC or AC peak) measured at < 5 mA
- ⁽³⁾ The maximum transient voltage let-through of the protector throughout the test ($\pm 10\%$), line to line & line to earth, both polarities. Response time < 10 ns
- ⁽⁴⁾ Test to IEC 61000-4-5:2006, ITU-T (formerly CCITT) K.20, K.21 and K.45, Telcordia GR-1089-CORE, Issue 2:2002, ANSI TIA/EIA/IS-968-A:2002 (formerly FCC Part 68)

OVR TN



OVR TNQ



OVR SL TN

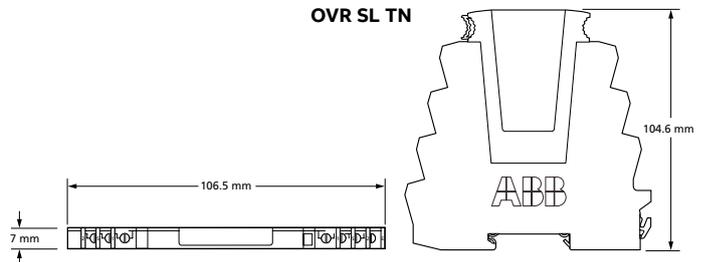


ABB order codes

Part	ABB order code	Part	ABB order code
OVR CME4	7TCA085400R0414	OVR WBX4	7TCA085410R0048
OVR CME8	7TCA085400R0415	OVR WBX4/GS	7TCA085410R0049
OVR CME16	7TCA085410R0045	OVR WBX8	7TCA085410R0050
OVR CME32	7TCA085410R0046	OVR WBX8/GS	7TCA085410R0051
OVR TN	7TCA085400R0345	OVR WBX16/2/G	7TCA085410R0047
OVR SLTN	7TCA085400R0323	OVR WBX SLQ	7TCA085400R0326
OVR SLTN/M	7TCA085400R0324	OVR WBX SLQ/G	7TCA085400R0327
OVR SLTNL	7TCA085400R0418	OVR TNQ	7TCA085400R0344