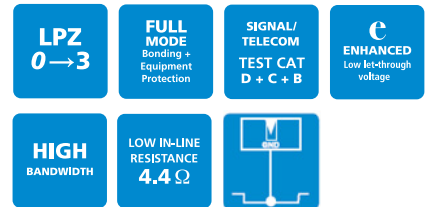
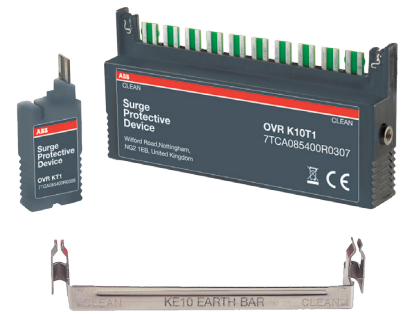


Telecoms & computer line protection

OVR KT & KE Series

Combined Category D, C, B tested protector (to BS EN 61643) suitable for use on ten line LSA-PLUS disconnection modules to PBX telephone exchanges, ISDN and other telecoms equipment with LSA-PLUS disconnection modules. 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

- Low cost protection for large numbers of data and signal lines
- 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
- Colour of housing distinguishes electrically different protectors - avoids confusion when installed together on the same distribution frame
- Quick and easy plug-in installation, with 'bump' location feedback
- Under power line cross conditions /PTC versions offer safe disconnection during fault duration. Unit auto-resets once fault corrected
- At larger installations OVR K10T1 and OVR K10T1/PTC provide all in one protection for all ten lines on LSA-PLUS disconnection modules
- Use the OVR KE10 to provide trouble free earthing for up to ten OVR KT1 and OVR KT1/PTC (per disconnection module)
- OVR K10T1 and OVR K10T1/PTC have an integral earth connection, and an external M4 earth bush for use with non-metallic LSA-Plus frames
- OVR KT1/PTC and OVR K10T1/PTC have resettable overcurrent protection and are rated for power cross faults
- OVR KT1, OVR KT1/PTC, OVR K10T1 and OVR K10T1/PTC are suitable for telecoms applications in accordance with Telcordia and ANSI Standards

Application

- For PSTN (e.g POTS, dial-up, lease line, T1/E1, *DSL and Broadband) and U interface ISDN lines, use OVR KT1 (or OVR KT1/PTC) and OVR K10T1 (or OVR K10T1/PTC)
- Protect single lines with OVR KT1 or OVR KT1/PTC
- Protect all ten lines on a disconnection module with OVR K10T1 or OVR K10T1/PTC

Installation

Install protectors on all lines that enter or leave each building (including extensions to other buildings). Identify the lines requiring protection and plug-in the protector (ensuring the correct orientation) for a series connection. Plug OVR K10T1 or OVR K10T1/PTC directly into each disconnection module requiring protection.

OVR KT1 and OVR KT1/PTC must be installed via the OVR KE10 earth bar. Clip an OVR KE10 on to the disconnection module and plug an OVR KT1 or OVR KT1/PTC in to each line on the module that needs protecting. In the unlikely situation that the protector is damaged, it will sacrifice itself and fail short circuit, taking the line out of commission, indicating it needs replacing and preventing subsequent transients from damaging equipment.

For further information on global telephony applications, see separate Application Note OVR AN005 (contact us for a copy).

NOTE: For individual telephone lines and lines at unmanned sites the high performance OVR TN or plug-in OVR TN/JP or OVR TN/RJ11 Series should be used. For plug-in S/T interface ISDN protection, use the ISDN Series protectors.

OVR KT & KE Series - Technical specification

Electrical specification		OVR KT1	OVR KT1/PTC	OVR K10T1	OVR K10T1/PTC
ABB order code		7TCA085400R0305	7TCA085400R0306	7TCA085400R0307	7TCA085400R0410
Maximum working voltage $U_c^{(1)}$	– line to line – line to earth	296 V 296 V			
Current rating (signal)		300 mA	145 mA	300 mA	145 mA
In-line resistance (per line $\pm 10\%$)		4.4 Ω			
Bandwidth (-3 dB 50 Ω system)		20 MHz			
Transient specification		OVR KT1	OVR KT1/PTC	OVR K10T1	OVR K10T1/PTC
Let-through voltage (all conductors) ⁽²⁾ Up					
C2 test 4 kV 1.2/50 μ s,	– line to line	395 V			
2 kA 8/20 μ s to BS EN/EN/IEC 61643-21	– line to earth	395 V			
C1 test 1 kV, 1.2/50 μ s,	– line to line	390 V			
0.5 kA 8/20 μ s to BS EN/EN/IEC 61643-21	– line to earth	390 V			
B2 test 4 kV 10/700 μ s to	– line to line	298 V			
BS EN/EN/IEC 61643-21	– line to earth	298 V			
5 kV, 10/700 μ s ⁽³⁾	– line to line	300 V			
	– line to earth	300 V			
Maximum surge current ⁽⁴⁾					
D1 test 10/350 μ s to	– line to line	1 kA			
BS EN/EN/IEC 61643-21:	– line to earth	2 kA			
8/20 μ s to ITU-T K.45:2003,	– line to line	5 kA			
IEEE C62.41.2:2002:	– line to earth	10 kA			
Power Faults specification		OVR KT1	OVR KT1/PTC	OVR K10T1	OVR K10T1/PTC
Power/Line Cross and Power Induction - tests to: ITU-T (formerly CCITT) K.20, K.21 and K.45, Telcordia GR-1089-CORE, Issue 2:2002, UL 60950/IEC 950					
Power/line cross		–	110/230 Vac	–	110/230 Vac
Power induction		–	600 V, 1 A	–	600 V, 1 A
Mechanical specification		OVR KT1, OVR KT1/PTC		OVR K10T1, OVR K10T1/PTC	
Temperature range		-40 to +80°C			
Connection type		To LSA-PLUS disconnection modules (BT part number 237A)			
Earth connection		Via OVR KE10 earth bar		Via integral earth clip/external M4 bush	
Material		FR Polymer UL-94 V-0		Stainless Steel	
Weight: – Unit		0.01 kg		0.01 kg	
Dimensions		See diagram below			

⁽¹⁾ Maximum working voltage (DC or AC peak) at 10 μ A for OVR KT1, OVR KT1/PTC, OVR K10T1, OVR K10T1/PTC

⁽²⁾ 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

⁽³⁾ 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)

⁽⁴⁾ The installation and connections external to the protector may limit the capability of the protector

