

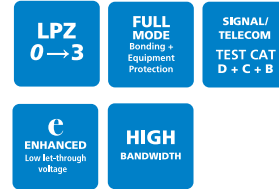
## DATASHEET

# Specific systems protection

## OVR TV Series



Combined Category D, C, B tested protector (to BS EN 61643) suitable to protect Cable, Terrestrial and Satellite TV systems. For use on lines running within buildings at boundaries up to LPZ 0 to 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
- Low attenuation and high return loss over a wide range of frequencies ensures the protectors do not impair system performance
- Substantial earth termination
- Supplied ready for flat mounting
- Strong metal housing

### Application

- Use to protect analogue and digital Cable, Terrestrial and Satellite TV installations. OVR CATV/F, OVR MATV/F, OVR SMATV/F and OVR TV/F are suitable for systems using F connectors. OVR TV/EURO is suitable for systems using EURO-TV connectors.
- For protecting terrestrial antenna feeds use OVR TV/F or OVR TV/EURO
- For protecting satellite feeds use OVR SMATV/F
- For protecting distributed combined TV feeds use OVR MATV/F
- For protecting cable TV feeds use OVR CATV/F

For further information on TV applications, see separate Application Note OVR AN006 (contact us for a copy).

### Installation

Connect in series with the coaxial cable either near where it enters or leaves each building or close to equipment being protected.



**NOTE:** Protectors for coaxial (or twisted pair) CCTV Lines are available. For coaxial RF lines, use the OVR RF Series. Transients can also be conducted into TV systems via the mains power supplies - use suitable OVR mains protection.

**OVR TV Series - Technical specification**

Electrical specification	OVR CATV/F	OVR MATV/F	OVR SMATV/F	OVR TV/F	OVR TV/EURO
<b>ABB order code</b>	7TCA085400R0293	7TCA085400R0308	7TCA085400R0336	7TCA085400R0335	7TCA085400R0334
Maximum working voltage <sup>(1)</sup>	140 V	18.9 V	18.9 V	6.4 V	6.4 V
Maximum operating current	4 A	800 mA	800 mA	300 mA	300 mA
Characteristic impedance	75 $\Omega$				
Bandwidth	5-860 MHz	5-3224 MHz	860-3224 MHz	5-860 MHz	5-860 MHz
Insertion loss:					
– 5-860 MHz	< 0.5 dB	< 0.3 dB	–	< 0.3 dB	< 0.3 dB
– 860-2150 MHz	–	< 1.5 dB	< 1.5 dB	–	–
– 2150-3224 MHz	–	< 2.2 dB	< 2.2 dB	–	–
Return loss (VSWR):					
– 5-860 MHz	> 20 dB (< 1.2:1)	> 32 dB (< 1.05:1)	–	> 32 dB (< 1.05:1)	> 32 dB (< 1.05:1)
– 860-2150 MHz	–	> 20 dB (< 1.2:1)	> 20 dB (< 1.2:1)	–	–
– 2150-3224 MHz	–	> 20 dB (< 1.2:1)	> 20 dB (< 1.2:1)	–	–
Transient specification	OVR CATV/F	OVR MATV/F	OVR SMATV/F	OVR TV/F	OVR TV/EURO
<b>Let-through voltage (all conductors)<sup>(2)</sup> Up</b>					
C2 test 4 kV 1.2/50 $\mu$ s, 2 kA 8/20 $\mu$ s to BS EN/EN/IEC 61643-21	270 V	70 V	70 V	65 V	65 V
C1 test 1 kV 1.2/50 $\mu$ s, 0.5 kA 8/20 $\mu$ s to BS EN/EN/IEC 61643-21	265 V	60 V	60 V	50 V	50 V
B2 test 4 kV 10/700 $\mu$ s to BS EN/EN/IEC 61643-21	245 V	45 V	45 V	30 V	30 V
5 kV, 10/700 $\mu$ s <sup>(3)</sup>	250 V	50 V	50 V	35 V	35 V
<b>Maximum surge current</b>					
8/20 $\mu$ s to ITU-T K.45:2003, IEEE C62.41.2:2002	3 kA				
D1 test 10/350 $\mu$ s to BS EN/EN/IEC 61643-21	500 A	750 A	750 A	750 A	750 A
Mechanical specification	OVR CATV/F	OVR MATV/F	OVR SMATV/F	OVR TV/F	OVR TV/EURO
Temperature range	-40 to +80 $^{\circ}$ C				
Connection type	F female				
Earth connection	~ 9.5 mm (3/8") diameter earth stud				
Case Material	Diecast				
Weight: – Unit	0.14 kg				
– Packaged	0.15 kg				
Dimensions	See diagram below				

<sup>(1)</sup> Maximum working voltage (DC or AC peak) measured at < 5  $\mu$ A (OVR CATV/F) and < 50 mA (OVR MATV/F, OVR SMATV/F, OVR TV/EURO, OVR TV/F)

<sup>(2)</sup> The maximum transient voltage let-through of the protector throughout the test ( $\pm$ 10%) line to earth. Response time < 10 ns

<sup>(3)</sup> 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)

