

SURGE PROTECTIVE DEVICES FOR COAXIAL CABLES

ATFREQ



AT-2102 ATFREQ-50UHF: Type UHF 50W protector.

AT-2103 ATFREQ-F: Type F 50W protector.

AT-2104 ATFREQ-TV: Type TV 50W protector.

AT-2105 ATFREQ-50BNC015: Type BNC 50W protector 0,15dB.

AT-2106 ATFREQ-50N: Type N 50W protector.

AT-2108 ATFREQ-400BNC015: Type BNC 400W protector 0,15dB.

AT-2109 ATFREQ-400UHF: Type UHF 400W protector.

AT-2110 ATFREQ-7/16: Type 7/16 900W protector.

AT-2111 ATFREQ-400N: Type N 400W protector.

AT-2115 ATFREQ-50BNC: Type BNC 50W protector.

AT-2118 ATFREQ-400BNC: Type BNC 400W protector.

Installation

ATFREQ SPDs are designed to be placed in series with the aerial signal cable. It is convenient to install it as close as possible to the equipment to be protected.

Each protector is provided with two coaxial connectors for an easy insertion and one earthing terminal. We supply SPDs provided with the most widely employed connectors (**BNC, UHF, N, F, TV, 7/16**) and male/female adaptors for direct insertion in any connection.

It is important to point out that ATFREQ protects the signal coaxial cable coming from the aerial, not the power supply. Power supply should be protected using specific SPDs such as ATSUB, ATCOVER, ATSHOCK or ATVOLT.

Connection to earth is carried out using a M5 screw placed at the SPD side. It must be as straight as possible, using a proper terminal and cable.



Due to their placement, aerials are one of the most exposed elements to lightning discharges. Even when an external lightning protection system exists, the discharge secondary effects can affect the TV or RF signals.

ATFREQ Surge Protective Devices **protect the signal cable** deriving the induced and conducted surges to the ground, thus avoiding damages to the communication and TV equipment and to the connected devices (DVD, video, decoders, home cinema sets, etc.)

Efficient protection against transitory surtentions, through **gas discharge tubes** with **10kA** withstand.

- Optimum coupling with imperceptible losses.
- Small attenuation in the signal even for very high frequencies.
- Short response times.
- Discharge takes place in an internal encapsulated element, without external flashes.
- Small size
- Specific connectors for each application.

ATFREQ protectors have been tested in **official, independent laboratories**, obtaining their characteristics according to relevant standards (related in the table).

⚠ Earth connection is a must. Earthing in all the installation must be bonded either directly or by a spark gap and resistance should be lower than 10Ω. If the indications of this datasheet are not fulfilled during the use or installation of the SPDs, the protection assured by this device could be endangered.

ATFREQ Series

Technical Datasheet

Reference	ATFREQ	Connector	Frequency range	Attenuation	Impedance	Max. working voltage (U _c)	Exchanged Power	DC Sparkover voltage
AT-2104	TV	TV	0-1 GHz	< 1,2dB	75Ω	70V _{DC}	50W	90V
AT-2103	F	F (sat.)	0-2 GHz	< 0,5dB				
AT-2105	50BNC015	BNC	0-1 GHz	< 0,15dB	50Ω	70V _{DC}	50W	90V
AT-2115	50BNC			< 0,2dB				
AT-2108	400BNC015			< 0,15dB				
AT-2118	400BNC			< 0,2dB				
AT-2106	50N	N	0-3 GHz	< 1,5dB	50Ω	70V _{DC}	50W	90V
AT-2111	400N			< 1,5dB				
AT-2102	50UHF	UHF	0-3 GHz	< 0,3dB	50Ω	70V _{DC}	50W	90V
AT-2109	400UHF			< 0,3dB				
AT-2110	7/16			7/16"				

Common Characteristics

Maximum discharge current (8/20μs wave):	I _{max}	10kA
Nominal discharge current for C2 line 10kV (1,2/50μs) / 5kA(8/20μs):	I _n (C2)	5kA
Response time:	t _r	< 100ns
Working temperature:	θ	-40°C to +70°C
SPD location:		Indoor
Type of connection:		Series (two ports)
Enclosure material:		Steel
Enclosure protection:		IP20
Earthing:		M5 screw
Certificated tests according to: IEC 61643-21, EN 61643-21		
Complies with requirements of: UL 1449		
Relevant standards UNE 21186, NFC 17102, UNE-EN62305		