TECHNICAL DATA SHEET

LPI® Coaxial Surge Protector - RF Ranges

Features

- Surge protectors to protect radio transmitters, receivers and high frequency LANs
- Fast acting gas filled arrestor enclosed in an inline mounting
- Minimise circuit capacitance
- 50 ohm characteristic impedance to assure performance up to 3 GHz
- High impulse rating
- Wide operating frequency / Low insertion and return loss
- Easy installation

Product Code	DC Clamp Voltage	Max. Impulse Clamp Voltage (1kV/µ sec)	Connector Type
RF-BNC-90	72 – 108 V	< 550 V	BNC Type M to F
RF-NMF-90	72 – 108 V	< 550 V	N Type M to F
RF-NB-90	72 – 108 V	< 550 V	N Type F to F (Bulkhead)
RF-SMA-90MF	72—108 V	< 550 V	SMA Type M to F
RF-BNC-230	220 – 320 V	< 550 V	BNC Type M to F
RF-NMF-230	220 – 320 V	< 550 V	N Type M to F
RF-NB-230	220 – 320 V	< 550 V	N Type F to F (Bulkhead)
RF-BNC-350	280 – 420 V	< 600 V	BNC Type M to F
RF-NMF-350	280 – 420 V	< 600 V	N Type M to F
RF-NB-350	280 – 420 V	< 600 V	N Type F to F (Bulkhead)
RF-BNC-600	480 – 720 V	< 1100 V	BNC Type M to F
RF-NMF-600	480 – 720 V	< 1100 V	N Type M to F
RF-NB-600	480 – 720 V	< 1100 V	N Type F to F (Bulkhead)

Technical Data

Description	Technical Specification
Max. Single impulse discharge current:	25 kA 8/20 µs
Max. Multiple impulse discharge current:	20 kA 8/20 µs
Nominal AC discharge current:	20A, 50Hz, 1 sec
Impulse life:	400 times @ 10/1000 µs
Characteristic impedance:	50 ohms
Insulation resistance:	10G ohms
Max. Capacitance:	1.5 pF
Insertion loss:	< 0.02 dB @ 3 GHz
Operating temperature:	65° C (max)
Weight:	160 g
Warranty:	5 Years

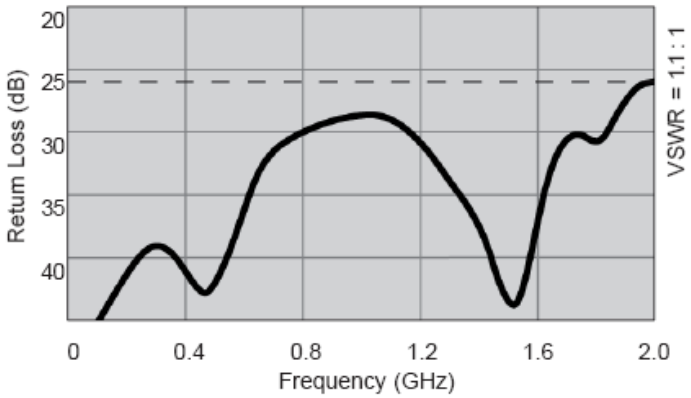
Note: To select the appropriate protection voltage use the following procedure:

Determine the transmitter power in Watts (P)
Determine the antenna VSWR, if unsure use 1.5 as the worst case
Calculate Vpeak = VSWR x 1.4 x √ (50 x P)
Choose the model with DC clamping voltage above the calculated Vpeak

Selection Chart

Power (W)	Arrester Voltage (V)
0-40	90
40-200	230
200-300	350
300-800	600

Typical RF Series Frequency Response for Type N Protector



Installation

Connect the protector in the RF line as close to the equipment to be protected as practical. The aim of these protectors is to provide electrical clamping between the inner and outer conductors of coaxial cables.

The earth lead provided should be connected to the unit by mounting the lug under any one of the 8 connector mounting screws, the other end should be terminated at the nearest convenient earthing point, using the shortest possible route.

The N bulkhead models are specifically designed for mounting at cable entry points. The bulkhead mount allows a secured earth connection to the cable entry plate and provides a convenient cable termination point.
This is the preferred method of installation.

Important

Normal precautions such as earthing coaxial cable sheaths at building points of entry are still vitally important.

LPI® CCTV Circuit Protector

Features

- Coaxial surge protector for protection of 75 ohm CCTV circuits
- High impulse rating
- 90 V spark-over voltage
- Easy installation

Technical Data

Ordering code:	C75-BNC90
Application:	75 ohm CCTV circuits
Connector Type:	BNC Female & Male
Ordering code:	C75-BNC90
DC spark-over voltage:	90 V
Max. Single impulse discharge current:	> 25 kA 8/20 µs
Max. Multiple impulse discharge current:	> 20 kA 8/20 µs
Nominal AC discharge current:	20 A, 50 Hz, 1 sec
Characteristic impedance:	75 ohms
Insulation resistance:	>10G ohms
Max. Capacitance:	1.5 pF
Dimensions (BxDxL)	17.5 x 17.5 x 56.5 mm
Insertion loss:	< 0.02 dB @ 3 GHz
Operating temperature:	65° C (max)
Weight:	160 g
Warranty:	5 Years

Installation

Connect the protector in the RF line as close to the equipment to be protected as practical. The aim of these protectors is to provide electrical clamping between the inner and outer conductors of coaxial cables.

The earth lead provided should be connected to the unit by mounting the lug under any one of the 8 connector mounting screws, the other end should be terminated at the nearest convenient earthing point, using the shortest possible route.

Important

Normal precautions such as earthing coaxial cable sheaths at building points of entry are still vitally important.

LPI® RF/High Speed Coaxial Cable Data Line Protector

Features

- RF/High speed coaxial cable data line protection
- 90 V & 50 V DC / 75 Ohms impedance
- F type connector (Female to Male)
- Suitable for bandwidth of up to 1 GHz for 90V unit and 0 - 2.5 GHz for 50 V Unit

Technical Data

Ordering code:	CF-50	CF-90
DC Spark over voltage:	50 V	90V
Impulse spark-over voltage:	1000 V	< 600V @1kV / µs
Max. Surge current:	5 kA	20kA 8/20µs
Frequency:	0 – 2 GHz	1 GHz Max.
Insertion loss:	0.5 dB (0 - 2.5Ghz)	1.0 dB
Impedance:	75 Ohms	75 Ohms
Operational conditions:	- 40°C to 85°C / Humidity 0 – 95%	- 40°C to 85°C / Humidity 0 – 95%
Dimensions:	38 x 15 x 13 mm (approx)	38 x 15 x 13 mm (approx)
Weight:	20 g (approx.)	30 g (approx)
Connector:	F type, Male to Female	F type with Female + Male

Application

- Wireless LAN application at 2.4 Ghz and 900 Mhz
- CATV
- DDS
- MMDS
- Cellular & PCS

Installation

Normal precautions such as earthing coaxial cable sheaths at building points of entry are still vitally important.

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