RF Equipment Protection High Power

Novaris high power surge protectors suit applications including MF, HF and VHF transmitters to 50kW. The spark gap arrester has an optical arc sensor which may be used to momentarily interrupt the transmitter.

CEIA - 078 - 1

Product Series
Connector Size
Options

	CEIA-078	CEIA-158	CEIA-318
Electrical Specifications			
Connection type	Series		
Modes of protection	Signal-Earth		
Maximum discharge current (8/20µs) I_{max}	100kA		
Power rating	>50kW limited only by coaxial cable		
Surge element	Spark gap, gap setting: 2mm / 10kW		
Spark over voltage	2.6kV for 2mm gap		
Characteristic impednce	50Ω		
Overstressed fault mode	Mode 3 (open circuit)		
Insertion loss	<0.1dB to 500MHz <0.2db to 1GHz (gap setting: 1mm)		
Return loss	>26dB to 500MHz >20dB to 1GHz (gap setting: 1mm)		
Arc sensor	Optical detector utilising photodiode, feeding transmitter interface to provide momentary shutdown		
Power requirements	Arc sensor: 12VDC @ 35mA		
Transmission medium	Arc detector fed to transmitter via optic fibre. Alternate metallic cable available.		
Mechanical Specifications			
Operating temperature / humidity	-40 to +85ºC / 5 to 95% non-condensing		
Connection type	7/8" EIA	1 5/8" EIA	3 1/8" EIA
Mounting	Bulkhead / flange		
Environmental	IP 55		
Enclosure	Brass and copper		
Options			
Spark gap only, no TX controller	Standard		
1RU 19" rack, one TX controller only	1		
3RU 19" rack, up to 14 TX controllers	n*		

* Denotes number of TX controllers

Standards Compliance
ITU-T K.44
AS/NZS 1768
IEEE C62.41
IEC 61643-21
UL497B