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

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