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### Installation Instructions Installationsanleitung Manuel d'installation Instrucciones de Instalación Istruzioni per l'installazione ИНСТРУКЦИЯ ПО МОНТАЖУ



#### ENGLISH

Please read the following before installing your Surge Protective Device:

- Verify the system voltage and configuration on the label if it is appropriate for the application.
- Risk of Electric Shock – Installation and maintenance should be performed by qualified personnel only.
- Safety rules and regulations applicable to all devices connected to power lines should always be followed. National standards and safety regulations must be followed.
- The external mechanical integrity of the device must be checked before installation. Products with visible damage should not be installed.
- Its use is only permitted within the limits shown and stated in these installation instructions. Opening or tampering with the device invalidates the warranty.
- It is very important to ensure the new device is of the same type and voltage as that being replaced.

#### DEUTSCH

Bitte lesen Sie die folgenden Angaben vor Installation der Überspannungsschutzgerät:

- Sicherstellen, dass die Systemspannung und -konfiguration auf dem Etikett für die Anwendung geeignet ist.
- Stromschlaggefahr – Installation und Wartung sollten nur vom Fachmann durchgeführt werden.
- Die Sicherheitsvorschriften und -regeln für alle an Stromleitungen angeschlossenen Geräte sind stets zu befolgen. Vor Ort geltende Normen und Sicherheitsvorschriften befolgen.
- Vor der Installation ist die externe mechanische Unversehrtheit des Geräts sicherzustellen. Produkte mit sichtbaren Schäden dürfen nicht installiert werden.
- Das Gerät ist nur für den Betrieb innerhalb der angegebenen Grenzwerte zugelassen. Wird das Gerät geöffnet oder manipuliert, erlischt die Garantie.
- Das neue Gerät muss vom selben Typ sein und dieselbe Betriebsspannung aufweisen wie das Gerät, das ersetzt wird.

#### FRANÇAIS

Veillez lire les instructions suivantes avant d'installer votre parafoudre:

- Vérifiez que la tension et la configuration du système sur l'étiquette du produit convient à l'application.
- Risque de choc électrique – L'installation et l'entretien doivent être effectués uniquement par du personnel qualifié.
- Les règles de sécurité et les réglementations applicables aux appareils connectés aux lignes électriques doivent toujours être respectées. Les normes nationales et les règles de sécurité doivent être respectées.
- L'intégrité mécanique externe du produit doit être vérifiée avant l'installation. Les produits présentant des dommages visibles ne doivent pas être installés.
- L'utilisation du produit est uniquement autorisée dans les limites indiquées dans ce manuel d'installation. Le désassemblage ou la modification du produit annule sa garantie.
- Il est très important de veiller à ce que le nouvel appareil soit du même type et présente la même tension que celui à remplacer.

#### ESPAÑOL

Lea las siguientes instrucciones antes de la instalación de su dispositivo de protección contra sobretensiones:

- Compruebe que la tensión y configuración del sistema que aparecen en la etiqueta son adecuadas para su instalación.
- Riesgo de descarga eléctrica: únicamente personal cualificado puede instalar o dar mantenimiento a este dispositivo.
- Siga siempre todas las normativas y reglamentos de seguridad pertinentes a todos los dispositivos conectados a la red eléctrica. Debe respetar la normativa nacional y los reglamentos de seguridad.
- Compruebe la integridad mecánica externa del dispositivo antes de su instalación. Nunca instale productos que presenten daños visibles.
- Sólo se permite utilizarse dentro de los límites establecidos en estas instrucciones de instalación. Abrir o alterar el dispositivo anula la garantía.
- Es muy importante asegurarse de que el dispositivo nuevo sea del mismo tipo y tensión que el que se reemplaza.

#### ITALIANO

Prima di installare il limitatore di sovratensione (SPD: Surge Protective Device), leggere attentamente quanto segue:

- Verificare la tensione e la configurazione del sistema sull'etichetta per capire se sono appropriati per l'applicazione del dispositivo.
- Rischi di elettrocuzione – L'installazione e la manutenzione devono essere effettuate unicamente da personale qualificato.
- È necessario rispettare sempre le normative e i regolamenti di sicurezza applicabili, per tutti i dispositivi collegati alla linea elettrica. È necessario rispettare gli standard nazionali e i regolamenti di sicurezza.
- Prima dell'installazione, è necessario verificare l'integrità meccanica esterna del dispositivo. Non bisogna installare prodotti che mostrino danni evidenti.
- Il suo uso è consentito solo entro i limiti indicati e dichiarati in queste istruzioni di installazione. L'apertura o la manomissione del dispositivo causano l'annullamento della garanzia.
- È molto importante assicurarsi che il nuovo dispositivo sia dello stesso tipo e tensione di quello che si sta sostituendo.

#### RUSSIAN

Перед установкой устройства защиты от перенапряжений прочтите следующее:

- Проверьте системное напряжение и конфигурацию на этикетке, если они подходят для приложения.
- Риск поражения электрическим током. Установка и техническое обслуживание должны выполняться только квалифицированным персоналом.
- Необходимо всегда соблюдать правила и нормы безопасности, применимые ко всем устройствам, подключенным к линиям электропередач. Необходимо соблюдать национальные стандарты и правила техники безопасности.
- Перед установкой необходимо проверить внешнюю механическую целостность устройства. Изделия с видимыми повреждениями устанавливать нельзя.
- Его использование разрешено только в пределах, указанных и указанных в данной инструкции по установке. Вскрытие или вмешательство в устройство аннулирует гарантию.
- Очень важно убедиться, что новое устройство того же типа и напряжения, что и заменяемое.

<b>INTERNAL CONFIGURATION</b>		<b>TECHNICAL DATA</b>	<b>RayCox BNC Series</b>	<b>BNC 5</b>	<b>BNC 12</b>
			Nominal Operating Voltage (DC) [U <sub>n</sub> ]	10V	24V
			Maximum Continuous Operating Voltage (DC) [U <sub>c</sub> ]	12V	28V
			C2 Nominal Discharge Current (8/20 μs) [I <sub>n</sub> ]	10kA	
			Rated Spark Overvoltage	(Wire-Shield) 13.5V-16.5V	30V-36V
				(Shield-Ground) 72V-108V	72V-108V
			Rated operating Current [I <sub>r</sub> ]	100mA	
			Cut-off Frequency [f <sub>c</sub> ]	100 MHz	
			Temperature Range [Ta]	-40°C...+80°C	

<b>INTERNAL CONFIGURATION</b>		<b>TECHNICAL DATA</b>	<b>RayCox IEC, F Series</b>	<b>IEC 48</b>	<b>F 48</b>
			Nominal Operating Voltage (DC) [U <sub>n</sub> ]	48V	
			Maximum Continuous Operating Voltage (DC) [U <sub>c</sub> ]	60V	
			C2 Nominal Discharge Current (8/20 μs) [I <sub>n</sub> ]	5 kA	
			Rated Spark Overvoltage	(Wire-Shield) 90V-110V	
			Insulation Resistance of Protection [R <sub>iso</sub> ]	(Wire-Shield) ≥ 6MΩ	
			Rated operating Current [I <sub>r</sub> ]	100mA	
			Cut-off Frequency [f <sub>c</sub> ]	40-860 MHz	
			Temperature Range [Ta]	-40°C...+80°C	

<b>INTERNAL CONFIGURATION</b>		<b>TECHNICAL DATA</b>	<b>RayDat CP BNC Series</b>	<b>70 V</b>	<b>180V</b>	<b>280V</b>
			Maximum Peak Power [P <sub>max</sub> ]	40W	125W	300W
			Maximum Continuous Operating Voltage (DC) [U <sub>c</sub> ]	70V	180V	280V
			C2 Nominal Discharge Current (8/20 μs) [I <sub>n</sub> ]	10 kA		
			Impedance [Z]	50 Ω		
			Insertion Loss [L <sub>i</sub> ]	< 0.4 dB		
			Return Loss [R <sub>r</sub> ]	> 20 dB		
			Frequency Range [f <sub>c</sub> ]	0 – 2.6GHz		
			Temperature Range [Ta]	-40°C...+80°C		

<b>INTERNAL CONFIGURATION</b>		<b>TECHNICAL DATA</b>	<b>RayDat CP 7/16 Series</b>	<b>70 V</b>	<b>180V</b>	<b>280V</b>
			Maximum Peak Power [P <sub>max</sub> ]	40W	125W	300W
			Maximum Continuous Operating Voltage (DC) [U <sub>c</sub> ]	70V	180V	280V
			C2 Nominal Discharge Current (8/20 μs) [I <sub>n</sub> ]	10 kA		
			Impedance [Z]	50 Ω		
			Insertion Loss [L <sub>i</sub> ]	< 0.2 dB		
			Return Loss [R <sub>r</sub> ]	> 20 dB		
			Frequency Range [f <sub>c</sub> ]	0 – 2.5GHz		
			Temperature Range [Ta]	-40°C...+80°C		

<b>INTERNAL CONFIGURATION</b>		<b>TECHNICAL DATA</b>	<b>RayDat CP N Series</b>	<b>70 V</b>	<b>180V</b>	<b>280V</b>
			Maximum Peak Power [P <sub>max</sub> ]	40W	125W	300W
			Maximum Continuous Operating Voltage (DC) [U <sub>c</sub> ]	70V	180V	280V
			C2 Nominal Discharge Current (8/20 μs) [I <sub>n</sub> ]	10kA		
			Impedance [Z]	50Ω		
			Insertion Loss [L <sub>i</sub> ]	<0.4dB		
			Return Loss [R <sub>r</sub> ]	>20dB		
			Frequency Range [f <sub>c</sub> ]	0-2.6 GHz		
			Temperature Range [Ta]	-40°C...+80°C		

<b>INTERNAL CONFIGURATION</b>		<b>TECHNICAL DATA</b>	<b>RayDat CP N-6G Series</b>	<b>CP N-6G-FF</b>	<b>CP N-6G-MF</b>
			Maximum Peak Power [P <sub>max</sub> ]	125W	
			Maximum Continuous Operating Voltage (DC) [U <sub>c</sub> ]	180V	
			C2 Nominal Discharge Current (8/20 μs) [I <sub>n</sub> ]	10kA	
			Impedance [Z]	50Ω	
			Insertion Loss [L <sub>i</sub> ]	<0.4dB	
			Return Loss [R <sub>r</sub> ]	>20dB	
			Frequency Range [f <sub>c</sub> ]	0-6.0 GHz	
			Temperature Range [Ta]	-40°C...+80°C	

<b>INTERNAL CONFIGURATION</b>		<b>TECHNICAL DATA</b>	<b>RayDat CP UHF Series</b>			
			Maximum Peak Power [P <sub>max</sub> ]	40W	125W	300W
			Maximum Continuous Operating Voltage (DC) [U <sub>c</sub> ]	70V	180V	280V
			C2 Nominal Discharge Current (8/20 μs) [I <sub>n</sub> ]	10kA		
			Impedance [Z]	50Ω		
			Insertion Loss [L <sub>i</sub> ]	<0.4dB		
			Return Loss [R <sub>r</sub> ]	>20dB		
			Frequency Range [f <sub>c</sub> ]	0-600 MHz		
			Temperature Range [Ta]	-40°C...+80°C		

<b>INTERNAL CONFIGURATION</b>		<b>TECHNICAL DATA</b>	<b>RayDat TNC-6G Series</b>		
			Maximum Peak Power [P <sub>max</sub> ]	125W	
			Maximum Continuous Operating Voltage (DC) [U <sub>c</sub> ]	180V	
			C2 Nominal Discharge Current (8/20 μs) [I <sub>n</sub> ]	10kA	
			Impedance [Z]	50Ω	
			Insertion Loss [L <sub>i</sub> ]	<0.4dB	
			Return Loss [R <sub>r</sub> ]	>20dB	
			Frequency Range [f <sub>c</sub> ]	0-6.0GHz	
			Temperature Range [Ta]	-40°C...+80°C	

<b>INTERNAL CONFIGURATION</b>		<b>TECHNICAL DATA</b>	<b>RayDat CP TV75</b>		
			Maximum Peak Power [P <sub>max</sub> ]	40W	125W
			Maximum Continuous Operating Voltage (DC) [U <sub>c</sub> ]	70V	180V
			C2 Nominal Discharge Current (8/20 μs) [I <sub>n</sub> ]	10 kA	
			Impedance [Z]	75 Ω	
			Insertion Loss [L <sub>i</sub> ]	< 0.4 dB	
			Return Loss [R <sub>r</sub> ]	> 20 dB	
			Frequency Range [f <sub>c</sub> ]	0 – 2.0 GHz	
			Temperature Range [Ta]	-40°C...+80°C	

<b>INTERNAL CONFIGURATION</b>		<b>TECHNICAL DATA</b>	<b>RayDat CP F75 Series</b>		
			Maximum Peak Power [P <sub>max</sub> ]	40W	125W
			Maximum Continuous Operating Voltage (DC) [U <sub>c</sub> ]	70V	180V
			C2 Nominal Discharge Current (8/20 μs) [I <sub>n</sub> ]	10kA	
			Impedance [Z]	75Ω	
			Insertion Loss [L <sub>i</sub> ]	< 0.4 dB	
			Return Loss [R <sub>r</sub> ]	> 20 dB	
			Frequency Range [f <sub>c</sub> ]	0 – 2.0GHz	
			Temperature Range [Ta]	-40°C...+80°C	