

# Model CPX *Compact Parallel TVSS Systems*

Model CPX is designed for applications at the lighting panel or at other sub-distribution or critical load sites within your facility. It is the perfect product for additional transient surge protection to back up the service entrance TVSS system, providing protection from transients that are internally generated. Model CPX is rated for the Category C1/B3 environment and is UL 1449 Second Edition Listed.

These systems provide an economical solution for providing TVSS protection in the expanding retrofit TVSS market, or any number of other applications. The systems are available in all popular single phase, split phase and three phase voltages, including delta configurations.

Model CPX systems utilize the same industry-proven United Power "Clear Choice" hybrid technology consisting of silicon avalanche diodes for less than 1 nanosecond response

time, metal oxide varistors and noise filtering capacitors found in other United Power TVSS products. The hybrid circuitry provides bi-directional protection and is available in surge current ratings from 13,000 surge amps per mode of protection up to 40,000 surge amps of protection per mode.



*Regardless of surge capacity or voltage code, Model CPX systems are small in size and easy to install.*



## ***Retrofit Model CPX Onto Existing Power Panels***

One of the most popular applications for Model CPX is for retrofitting onto an existing power panel. The system can be field installed, and wired directly into the circuit breaker serving as the TVSS system's disconnect device. Model CPX is an ideal means of protecting all of the critical loads on the panel-board with a single, performance-oriented Category C1/B3 device.

## **Features**

### Benefits

- Protects Loads from High Energy Transients
- Clamps Voltage Close to Nominal Waveform
- Diverts Surges in All Paths Away From Load
- Filters Line Noise
- 5-Year Warranty

### Electrical

- Available in Popular Voltage Configurations
- Up to 40 kA Surge Current Rated Per Mode
- <1 Nanosecond Response Time
- 1, 2 or 3 Stage Systems Available

### Environmental

- Small Size for Universal Applications
- NEMA 4X: Watertight, Corrosion Resistant
- On-Board LED Monitoring Lights
- Form C Summary Alarm Contacts

### Standards

- UL 1449 Second Edition Listed
- UL 1283 Listed
- IEEE C62.41 Category C1/B3
- IEEE C62.45 Tested for Long Life

# UNITED POWER

# Model CPX: Compact Parallel TVSS *Technical Specifications*

<b>FEATURES—GENERAL</b>	<b>Model CPX1</b>	<b>Model CPX2</b>	<b>Model CPX3</b>						
UL/CUL 1449 Second Edition	Yes	Yes	Yes						
Suppression Technology	Hybrid: SADs/MOVs/Capacitors	Hybrid: SADs/MOVs/Capacitors	Hybrid: SADs/MOVs/Capacitors						
Response Time	<1 Nanosecond	<1 Nanosecond	<1 Nanosecond						
200 kAIC Fusing	Standard	Standard	Standard						
Noise Filtering	Standard	Standard	Standard						
System Status Lights	Standard	Standard	Standard						
Form C Dry Contacts	Standard	Standard	Standard						
Remote Monitoring Available	Yes	Yes	Yes						
Enclosure Type	NEMA 4X	NEMA 4X	NEMA 4X						
Enclosure Dimensions (HxWxD)	4.7" x 4.8" x 3.4"	4.7" x 4.8" x 3.4"	4.7" x 4.8" x 3.4"						
<b>SURGE CURRENT RATINGS</b>	<b>Model CPX1</b>	<b>Model CPX2</b>	<b>Model CPX3</b>						
	Systems w/Neutral Conductor Shown	Systems w/o Neutral Conductor Shown	Systems w/Neutral Conductor Shown						
<b>Nameplate</b>	<b>Mode</b>	<b>Phase</b>	<b>System</b>	<b>Mode</b>	<b>Phase</b>	<b>System</b>	<b>Mode</b>	<b>Phase</b>	<b>System</b>
013K	13 kA	13 kA	13 kA	13 kA	26 kA	26 kA	13 kA	26 kA	39 kA
020K	20 kA	20 kA	20 kA	20 kA	40 kA	40 kA	20 kA	40 kA	60 kA
026K	26 kA	26 kA	26 kA	26 kA	52 kA	52 kA	26 kA	52 kA	78 kA
040K	40 kA	40 kA	40 kA	40 kA	80 kA	80 kA	40 kA	80 kA	120 kA

## CLAMPING VOLTAGE RATINGS

UL 1449 Second Edition Listed

<b>System</b>	<b>System Voltage</b>	<b>L-N</b>	<b>L-G</b>	<b>N-G</b>	<b>L-L</b>
Model CPX1	120/240	400	N/A	N/A	700
	120/208	400	N/A	N/A	700
	277/480	800	N/A	N/A	1500
Model CPX2	120/240	400	N/A	330	700
	120/208	400	N/A	330	700
	277/480	800	N/A	330	1500
	480 Delta	N/A	1500	N/A	1800
Model CPX3	120/240	400	400	330	700
	120/208	400	400	330	700
	277/480	800	800	330	1500

## Model CPX Part Numbering System

Example:

# CPX3-S1-040K-31-L

### Family Number of Stages

CPX1 One Stage L-N<sup>1</sup> or L-L<sup>2</sup>  
 CPX2 Two Stage L-N & N-G<sup>1</sup> or L-L & L-G<sup>2</sup>  
 CPX3 Three Stage L-N, L-G & N-G<sup>1</sup>

<sup>1</sup> Systems with Neutral Conductor  
<sup>2</sup> Systems without Neutral Conductor

### Monitoring

S1 Standard Level 1 w/Form C Summary Alarm Contact

### Surge Current Rating

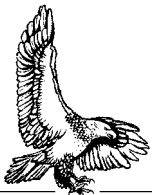
013K 13 kA Per Each Protection Mode  
 020K 20 kA Per Each Protection Mode  
 026K 26 kA Per Each Protection Mode  
 040K 40 kA Per Each Protection Mode

### Voltage Code

11 120 Single Phase  
 25 120/240 Split Phase  
 31 120/208 Three Phase  
 34 277/480 Three Phase  
 43 480 Three Phase Delta  
 Consult factory for voltage codes not listed!

### Termination Method

L 18" Leads Standard



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