# Eaton PXL





NEMA 1/3R Enclosure available with or without disconnect switch

F:T•N				
PXL Premium Display				
SURGE PROTECTION 100 KA				
	PHASE GREEN - PRO		STATUS ED-REPLACE	
LEVENT DICE-N	VAB 208	VBC 208	VCA 208	
TEST	STEP	RESET	DISABLE	

**Premium Display** 



Standard Display

### Facility and Data Center Protection

Today's business environment calls for 24/7 uptime and reliability. Customers require solutions to ensure that their investments in equipment and processes are protected from the damaging effects of voltage transient and electrical noise. Surge protection devices are needed to protect sensitive telecommunications, HVAC, and other electrical and electronic equipment. The Eaton® PXL series of surge protective devices provides enhanced feature capability for missioncritical applications.

#### Intelligent Surge Suppression Device with Advanced Monitoring Options

The PXL offers improved quality and reliability including enhanced monitoring capabilities and a patented technology —



our Thermo-Dynamic Fusing<sup>™</sup> system — which provides a safer surge protective device in a smaller package.

Our premium display option offers features not even found in our competitor's highest functioning displays. In addition to typical features such as a surge counter, push to test button and phase operating status LEDs, our premium display incorporates a mini power quality meter with surge, sag, swell and outage counters and a voltmeter - all on a compact, 2 x 16 LCD. Even our standard display is loaded with features including an audible alarm, form C contacts and phase operating status LEDs.

# Surge Protection from the Inside Out

The PXL is the first surge protective device to utilize our patented Thermo-Dynamic Fusing system to provide both safety and performance. This technology, which uses fuse traces (FT) on each individual metal oxide varistor (MOV), can sustain high surge currents and provide the necessary interruption of high fault currents (kAIC). In addition, a thermal fuse spring (TFS) utilizing a special low-temperature solder, is designed to disconnect the MOV before it exceeds a safe temperature during low-level fault current events. Low-level fault currents are most common during temporary over-voltage conditions (TOV) and are the main cause of surge protective device failure (SPD). SPD products that promote fuses with excessive surge current ratings do not provide the proper system coordination. They sacrifice low-level fault protection and do not disconnect during low current fault events. This can result in catastrophic failure (fire) and eventual tripping of the upstream breaker or fuse. With the PXL, you get both safety and system coordination.

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Let-through voltage is a key performance measurement for SPDs. The most significant factor affecting let-through voltage is lead length. The PXL's reduced size allows the device to be installed as close as possible to the equipment being protected. By minimizing the lead length, let-through voltage is reduced and performance enhanced. In addition to creating a product that features advanced display capabilities that is smaller and safer, we have continued to use our world-class design methodologies including SurgePlane<sup>™</sup> technology.

### **3D SurgePlane** Technology

The SurgePlane is a low impedance surge suppression platform that reduces letthrough voltage for all ANSI/ IEEE defined surges. Reduced let-through voltage is achieved by lowering the overall system inductance and ensuring the rated surge current is equally diverted to all suppression components. Advanced tuned

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suppression filtering further enhances performance by providing an additional path for transients. In order to reduce the footprint, our design engineers developed the 3D SurgePlane, which provides the same cross sectional copper area, but utilizes the x-y and z-axes. Saving space while providing the same tried and trusted technology, Eaton is once again thinking outside the box.

#### **3D SurgePlane:**

- · Lowest possible selfinductance copper plane construction maximizes surface area for shunting high frequency surges
- Reduced mutual inductance minimizes the loop area of all modes, resulting in lower letthrough voltage
- Longer life expectancy diverts surge current equally to all matched MOVs within each phase
- Matched MOVs with ±1-2% maximum continuous operating voltage (MCOV)

#### Installation **Recommendations**

When installing a surge suppressor, it is important to mount the suppressor as close to the electrical equipment as possible, keep the wiring (lead length) between the electrical equipment and the suppressor as short as possible (less than 14 inches is recommended), and twist/tie the conductors together to reduce inductive effects.

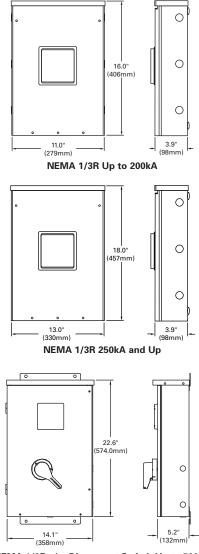
#### **Customer Designed** Service

Eaton offers world-class service through a large network of customer service and inside sales engineers. Factory-certified and trained service technicians deliver 24/7 support for virtually any application.

CANADA Ontario: 416.798.0112 Toll free: 1.800.461.9166

LATIN AMERICA Argentina: 54.11.4124.4000 Brazil: 55.11.3616.8500 México: 52.55.9000.5252

### **Standard Dimensions**



NEMA 1/3R c/w Disconnect Switch Up to 500kA

## **Powerware PXL Ordering Guidelines:**

PXL kA per Phase Rating Voltage Codes 100 - 100kA/phase 120 - 120kA/phase 160 - 160kA/phase 240D - 240V, 3Φ, 3W+G 200 - 200kA/phase 480D - 480V, 3Φ, 3W+G 250 - 250kA/phase



K - NFMA 1/3R M - NEMA 1/3R c/w Disconnect Switch

300 - 300kA/phase 400 - 400kA/phase 500 - 500kA/phase

EUROPE/MIDDLE EAST/AFRICA Denmark: 45.3686.7910 Finland: 358.94.52.661 France: 33.1.6012.7400 Germany: 49.0.7841.604.0 Italy: 39.02.66.04.05.40 Norway: 47.23.03.65.50 Portugal: 55.11.3616.8500 Sweden: 46.8.598.940.00 United Kingdom: 44.1753.608.700 ASIA PACIFIC Australia: 61.2.9693.9366 New Zealand: 64.0.3.343.3314 China: 86.21.6361.5599 HK/Korea/Taiwan: 852.2745.6682 India: 91.11.2649.9414 to 18 Singapore/SEA: 65.6825.1668

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