



[www.bantamcleanpower.com](http://www.bantamcleanpower.com)

**Patented Technology that Protects  
Line, Neutral and Ground**



## **Bantam Applications**

### **Power Line Exploitation (PLE)**

#### **Background:**

Power Line Exploit, or PLE, is a new hacker threat to IT security as confirmed by a IEEE paper in December of 2019. Bad-actors can gather critical information by interrupting electromagnetic pulses traveling on the ground wire exiting equipment or facilities.

#### **Cause:**

The transistor and power supply switching pulses generated by IT equipment create signals that emanate from power traces to the ground trace and wire via inductive coupling or inducement, the principle behind radio transmission. PLE is sensing and interrupting these electrical magnetic impulses, that are very low in power and very high in frequency, on the ground wire exiting IT equipment or facilities.

#### **Threat:**

Exploiting voltage data requires touching or connecting to wires. But to exploit data traveling with the current, the hacker collection device does not need to touch the wire, it only needs to be close enough to detect the electrical magnetic field emanating from the wire. Extracting signals and data on power lines is not difficult, this is what Smart Meters do. Since the ground is a safety path, it needs to be an uninterrupted return to the power grid. Once the signal is on ground via inductive coupling, it is detectable almost anywhere inside and outside any data center, business or medical facility. Near field antennas, current sensors with a data logger, cell phones and even radios can be used to gather signals and data traveling along the current wave form.

A hacker with extract and interrupt capabilities can exploit the data from a compromised computer via the power line without network security devices like firewalls being aware.

Consider ATM machines plugged into the local power circuit in a mall or airport. A hacker with a computer plugged into an adjacent wall outlet can extract signals and data coming from the ATM machine power plug via the common wall ground wiring. This creates an opportunity to extract and record sensitive data and PIN key strokes signals for later interrupting.

#### **Solution:**

Because the patented Bantam circuit is a bi-directional filter of Line, Neutral, and Ground, the PLE threat is eliminated. Any data centric electrical device connected via the power cord to the Bantam technology will have the exploitable signals and data filtered and suppressed, rendering them unreadable by Bad-actors.

In additions to eliminating the PLE threat, the same Bantam circuit is also an excellent power conditioner and nearly indestructable surge protector. Revolutionary technology in a compact, cost effective package.

All Bantam products have a 10 year replacement warranty

**Surge Protection ● Power Conditioning & Filter ● Stable Ground Reference  
Harmonic Attenuation ● Power Factor Correction ● Hacker Protection**

**Contact: Lodestone Group, 4769 E. Wesley Drive, Anaheim CA 92807 • (714)-970-0900**

# Bantam

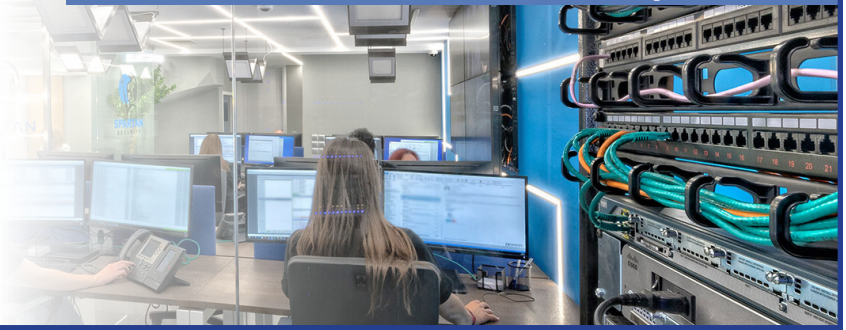


## Clean Power

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**Patented Technology that Protects  
Line, Neutral and Ground**

## Protection from Power Line Exploitation



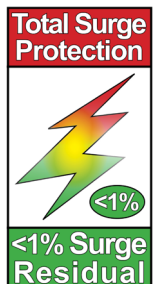
The ideal Power Conditioner and Surge Protector for Protecting Critical Data. Absorbs surges, transients, PLE, EMI & RFI frequencies and reduces harmonic distortion. The Patented Circuit is a Bi-directional filter of Line, Neutral & Ground, so devices sharing a common power source do not share surges, transients, and harmonics.



### Bantam Vanguard PP18004 120V 15 amps

<b>Input Voltage:</b>	110-120 VAC Single Phase
<b>Output Voltage:</b>	110-120 VAC Single Phase
<b>Outlets:</b>	Four (4) filtered NEMA 5-15R outlets
<b>Output Current:</b>	15 amps
<b>Nominal Frequency:</b>	50 to 60 Hz
<b>Circuit Protection:</b>	15 amp thermal breaker, push-to-reset
<b>Safety Standard:</b>	MET Listed to UL and cUL Standards

Portable and compact, the 15 amp Vanguard packs incredible Power Conditioning and Surge Protection Technology in a small affordable package.



### Bantam Citadel RM1440 120V 15 amps

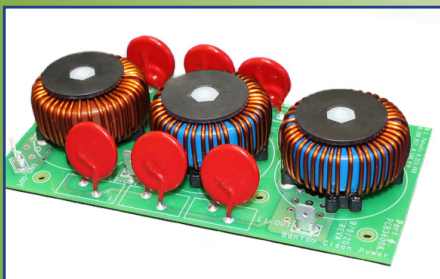
<b>Input/Output Voltage:</b>	110-120 VAC 60 Hz, Single Phase
<b>Outlets:</b>	Six (6) filtered NEMA 5-15R outlets Two (2) IEC 320 C13 outlets, adapters included.
<b>VA Rating:</b>	1440VA 50 to 60 Hz

### Bantam Citadel RM2880 220V 15 amps

<b>Input/Output Voltage:</b>	220-240 VAC 60 Hz, Single Phase
<b>Outlets:</b>	Eight (8) filtered IEC 320 C13 outlets
<b>VA Rating:</b>	2880VA 50 to 60 Hz

<b>Regulatory Compliance:</b>	UL 62368-1
<b>Circuit Protection:</b>	Thermal breaker, push-to-reset
<b>Color LCD Display:</b>	Real Time Display For: Surge Count, Voltage, Current, Frequency, Wattage, Power Factor

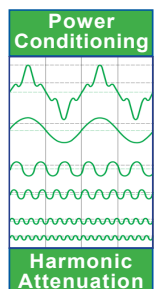
Available in 120 or 220 volts, the versatile and effective, 15 amp Citadel can be rack, floor or wall mounted. Essential protection for computers, servers, test equipment, security, POS, controllers, audio



### Bantam Tempest SA3600 100-240V 15 amps

<b>Input/Output Voltage:</b>	100-240 VAC Single Phase
<b>Max Wattage:</b>	3600 50 to 60 Hz
<b>Output Current:</b>	10-15 amps.
<b>Input/Output Connections:</b>	3 each 0.25" QC Spade Connectors
<b>Regulatory Compliance:</b>	UL 62368-1, CE

This Bantam Patented Circuit is UL Component Listed so OEMs can include superior surge and power conditioning in a wide variety of products.



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Harmonic Attenuation ● Power Factor Correction ● Ground Infiltration Protection**