*Power***GUARD**™ is breakthrough technology in the ongoing battle for energy efficiency working to save you money in five key ways:

- Protects entire house from lightning, spikes and surges
- Reduces kWh (energy consumption)
- Improves Power quality
- Improves voltage
- Extends life of motors and appliances

POM ENERGY CONCEPTS INC

Manufacturer of *Power***GUARD**™ Products

GSA CONTRACT # GS-07F-0435T

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*Power***GUARD** removes dirty power from each phase and returns clean 60-Hz AC power. Dirty power includes spikes, surges, sags, harmonics, and RFI noise.

*Power***GUARD** protects the entire electrical system! *Power***GUARD** absorbs spikes and surges and converts them into usable power, saving energy and money!

Distributed by:

*Power***GUARD** residential and commercial units protect your entire electrical system. Specialized equipment like electronics, personal computers, and appliances will have maximum surge and spike protection. *Power***GUARD** is rated to take multiple lightning hits and still keep on working. You see you can't blow a magnetic choke (with a 5 year warranty it is a small price to pay to protect your investment)*. And *Power***GUARD** can also improve sound and picture quality for audio and television, including the most sophisticated home entertainment units.

*Power***GUARD** also takes the high ground in the uncharted territory of Power Conditioners and surge suppression devices achieving energy savings for all inductive equipment and appliances (refrigerators, freezers, air conditioners, heat pumps, heating system circulators and blowers). This technology is widely used in hospitals, universities and industrial applications.

*Power***GUARD** consists of a system of magnetic chokes. These chokes work as a filter, taking unwanted spikes and surges off line and returning the energy to the opposite phase. The net effect is to reduce kW / kWh demand (lower electrical bills) while protecting against multiple transient voltage spikes and surges (including lightning).* Additional effects are increased voltage, balanced voltage phase to phase, and reduced harmonic current (dirty power).

SIZING CHART

Sizing Criteria	RES-1	COMM-1
Power Bill Amount (monthly usage) kWh	less than $300/month less than 3,000 kWh/month	more than $300/month more than 3,000 kWh/month
Approximate Savings kWh/hour	0.25	0.50

TECHNICAL SPECIFICATIONS

SPECIFICATION	RES-1	COMM-1
Line Voltage	120/240 Vac	120/240 Vac
Nominal Frequency	60Hz	60Hz
Power Dissipation/8X20 usec.	>900 joules	>1000 joules
Peak Pulse Current	>30,000 A	>30,000 A
Max Surge Current/8x20 usec.	10,000A/4 shts	10,000A/4 shts
Nominal Clamping Voltage	130/250 Vrms	130/250 Vrms
Maximum Clamping Voltage	340 V	340 V
Response Time	15 nanoseconds	
Surge Rebound	Inherent "Self-Healing" Property	
Standby Power	>8 watts	>10 watts
Total Capacitance	150 uF	200 uF
Operating Temperature	-40°C to 70°C	
Unit Temperature Rise	<3°C after 24 hours under full load conditions	
Audible Noise at 3'	< 2dBA	
Operating Life Line Connections	>60,000 hours with over 95% survival	
(THHN Single Cond)	#10	#10
Circuit Breaker Required	20 A, 2 pole	20 A, 2 pole
Dimensions (HxWxD)	9.5 x 9.5 x 5	9.5 x 9.5 x 5
Estimated Weight	7 lbs.	8 lbs.
Estimated Savings *See Note	0.25 kW/0.25 kWh	.5 kW/.5 kWh/hr
Warranty	5 years	

*Note: kW and kWh savings provided for inductive loads only. Actual savings depend upon load characteristics

SAVINGS CHART

Model	Approximate Savings kWh/hour	Yearly savings @ $.15/kWh	Yearly savings @ $.16/kWh	Yearly savings @ $.17/kWh
RES-1	0.25	$329	$350	$372
COMM-1	0.50	$657	$701	$745

	Yearly savings @ $.18/kWh	Yearly savings @ $.19/kWh	Yearly savings @ $.20/kWh
RES-1	$394	$416	$438
COMM-1	$788	$832	$876

Info on Commercial and Industrial *Power*GUARD Units available on request

THE DAMAGE TO ELECTRONIC AND ELECTRICAL EQUIPMENT caused by a single surge or spike can easily exceed the cost of a *Power***GUARD** unit for your home. Specific savings depend upon the electrical equipment, hours of operation and utility rates, but a *Power***GUARD** unit typically pays for itself within two to three years of installation through energy cost savings alone. (Example: at .12 kWh your estimated annual savings is $263)

EASY INSTALLATION

MOST HOMES REQUIRE just a single *Power***GUARD** unit, which can be easily installed by a licensed electrician at the service entrance circuit breaker panel. Once installed, *Power***GUARD** provides years of energy savings on inductive equipment and protection for all equipment powered from the panel.

* The average household has has spent $1200 in the last 12 months on electronics and has an estimated $4,800 in items like high definition TV's, DVD's and Stereo Systems not including appliances, boilers, air conditioning etc.