

Power Quality Products

Power Line Conditioners

Features and Benefits

In today's modern and competitive business world, highly sophisticated computer systems are relied upon to perform multiple functions and applications including wide area networks (WAN), ATM's, point of sale systems (POS) and computer aided manufacturing. As the microprocessor "brain" of computer systems becomes more advanced and operates at increasingly faster speeds, precautions must be taken to protect this sensitive circuitry.

Microprocessor's Susceptible to Power Quality

Most users of microprocessor based equipment are not aware that they are susceptible to power quality problems. Furthermore, they are not aware of how problems with power quality can affect their microprocessor based systems. As microprocessor technology becomes more advanced, it becomes more susceptible to problems associated with the quality of power being provided.

Power quality disturbances such as spikes or surges, high frequency electrical noise, harmonics and ground contamination can cause numerous problems with computer driven systems. These problems include corrupted or lost data, lockups, crashes, and other unexplained system problems.

Patented Technology

SpikeShield Power Line Conditioners by Hubbell are specifically designed to protect today's sophisticated microprocessor based equipment from these damaging power disturbances. The power line conditioners from Hubbell feature zero ground technology that filters noise, stops surges and spikes and guarantees a clean, zero ground reference which is crucial to maintaining data integrity, system stability and high operating efficiency. The ground system is the "0" reference point for data access and transmission and must be free of contamination.

SpikeShield Power Line Conditioners are available in **Straight Blade**, **Twist-Lock®**, **Hard Wired** and **Medical Grade** versions. The new line of conditioners are also available in 2 Amp through 20 Amp versions. SpikeShield Power Line Conditioners are UL 1012 Listed for Power Supplies and Certified for CAN CSA-22.2, No. 107.1 Power Supplies. The Medical Grade models are UL Listed to UL544 Professional Medical and Dental Equipment and cUL listed to CSA 22.2, No. 125 Electromedical Equipment.

Features

Eliminates noise, interference and other power disturbances that could have damaging effects on today's more sophisticated Pentium® and other computer chips.

Removes harmful ground spikes while maintaining a zero ground reference at each terminal for reliable data access and transmission.

10 Year limited product warranty.



Straight Blade



Hard Wired



Medical Grade



Twist-Lock®

Pentium® is a registered trademark of the Intel Corporation.

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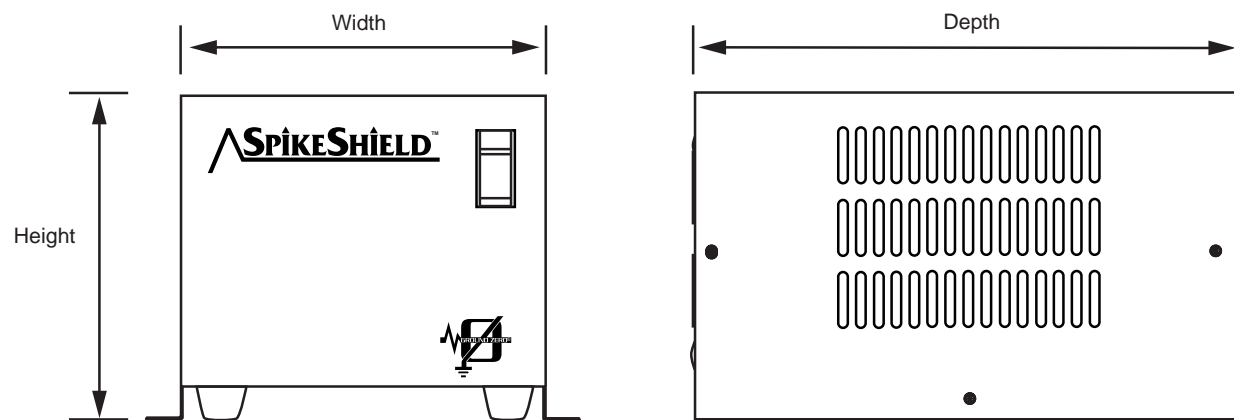
Power Line Conditioners Ordering Information

SpikeShield™ Power Line Conditioners

| Catalog Numbers | Input / Output Voltage (AC) | Load Current (Amps at 120V) | Quantity of Receptacles | Recept. NEMA Configuration | Plug NEMA Configuration | Dimensional Information | | | |
|-----------------|-----------------------------|-----------------------------|-------------------------|----------------------------|-------------------------|-------------------------|-------|-------|---------|
| | | | | | | Height | Width | Depth | Weight |
| IT2111SA | 120V AC | 2A (240VA) | 2 | 5-15R | 5-15P | 5.65" | 5.90" | 8.75" | 14 lbs. |
| IT2111TLA | 120V AC | 2A (240VA) | 2 | L5-15R | L5-15P | 5.65" | 5.90" | 8.75" | 14 lbs. |
| IT3111SA | 120V AC | 3A (360VA) | 2 | 5-15R | 5-15P | 5.65" | 5.90" | 8.75" | 15 lbs. |
| IT3111TLA | 120V AC | 3A (360VA) | 2 | L5-15R | L5-15P | 5.65" | 5.90" | 8.75" | 15 lbs. |
| IT3111SHGA | 120V AC | 3A (360VA) | 2 | 5-15R | 5-15P | 5.65" | 5.90" | 8.75" | 15 lbs. |
| IT5111SA | 120V AC | 5A (600VA) | 2 | 5-15R | 5-15P | 5.65" | 5.90" | 9.50" | 17 lbs. |
| IT5111STLA | 120V AC | 5A (600VA) | 2 2 | 5-15R L5-15R | L5-15P | 5.65" | 5.90" | 9.50" | 17 lbs. |
| IT5111HWA | 120V AC | 5A (600VA) | – | – | – | 5.65" | 5.90" | 9.50" | 17 lbs. |
| IT5111SHGA | 120V AC | 5A (600VA) | 2 | 5-15R | 5-15P | 5.65" | 5.90" | 9.50" | 17 lbs. |
| IT8311SA | 120V AC | 8.3A (1000VA) | 2 | 5-15R | 5-15P | 6.50" | 7.00" | 11.0" | 27 lbs. |
| IT8311STLA | 120V AC | 8.3A (1000VA) | 2 2 | 5-15R L5-15R | L5-15P | 6.50" | 7.00" | 11.0" | 27 lbs. |
| IT8311HWA | 120V AC | 8.3A (1000VA) | – | – | – | 6.50" | 7.00" | 11.0" | 27 lbs. |
| IT8311SHGA | 120V AC | 8.3A (1000VA) | 2 | 5-15R | 5-15P | 6.50" | 7.00" | 11.0" | 27 lbs. |
| IT1211SA | 120V AC | 12A (1500VA) | 3 | 5-15R | 5-15P | 7.50" | 8.50" | 13.5" | 44 lbs. |
| IT1211HWA | 120V AC | 12A (1500VA) | – | – | – | 7.50" | 8.50" | 13.5" | 44 lbs. |
| IT1211SHGA | 120V AC | 12A (1500VA) | 3 | 5-15R | 5-15P | 7.50" | 8.50" | 13.5" | 44 lbs. |
| IT1611SA | 120V AC | 16A (2000VA) | 3 | 5-20R | 5-20P | 7.50" | 8.50" | 13.5" | 48 lbs. |
| IT1611HWA | 120V AC | 16A (2000VA) | – | – | – | 7.50" | 8.50" | 13.5" | 48 lbs. |
| IT2011TLA | 120V AC | 20A (2500VA) | 3 | L5-20R | L5-20P | 7.50" | 8.50" | 13.5" | 55 lbs. |
| IT2011HWA | 120V AC | 20A (2500VA) | – | – | – | 7.50" | 8.50" | 13.5" | 55 lbs. |

Suffix Key: S = Straight Blade, HW = Hard Wire, TL = Twist-Lock®, STL = Combination Straight Blade/Twist-Lock, SHG = Straight Blade/Medical Grade.

Dimensions



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Power Line Conditioners Specifications

Performance Specifications

Tested under power to ANSI/IEEE C62.41

Category A: 600V, 200A, 0.5msec. risetime, 100kHz decay.
 Category B: 600V, 500A, 0.5msec. risetime, 100kHz decay.

Noise Rejection-Isolation

Normal Mode: Less than 10 Volts - a 600 to 1 reduction.
 Common Mode: Less than 0.5 Volts - a 12,000 to 1 reduction.

50 Ampere Common Mode Ground Surge Current Test (39dB reduction)

Ground Surge Current Reduction Factor of 88 to 1.

50 Ohm Common Mode Insertion Test (45dB at 40MHz typical)

Common Mode Noise Power Attenuation of 31 to 1.
 Common Mode Noise Voltage Attenuation of 178 to 1.

Underwriters Laboratories

UL 1012 Listed for Power Supplies and Certified for CAN CSA-22.2, No. 107.1 Power Supplies, The Medical Grade models are UL Listed to UL544 Professional Medical and Dental Equipment and cUL listed to CSA 22.2, 125 Electromedical Equipment.

Notes: Hubbell SpikeShield Medical Grade power line conditioners use a medical grade paint which is non-hydroscopic in nature. This grade of paint is required by UL 544 to prevent the spread of disease and/or contamination.



Straight Blade



Medical Grade

Electrical Specifications

| Model Series | IT2111XX | IT3111XX | IT5111XX | IT83111XX | IT12111XX | IT16111XX | IT20111XX |
|-------------------------------|----------|----------|----------|-----------|-----------|-----------|-----------|
| Voltage In/Out | 120V AC | 120V AC | 120V AC | 120V AC | 120V AC | 120V AC | 120V AC |
| Load Current (Amps) | 2A | 3A | 5A | 8.3A | 12A | 16A | 20A |
| Output Rating (VA) | 240VA | 360VA | 600VA | 1000VA | 1500VA | 2000VA | 2500VA |
| Circuit Breaker Rating (Amps) | 3 | 4 | 6 | 9 | 13 | 18 | 20 |
| Load Regulation | ±4.5% | ±4.0% | ±3.0% | ±2.0% | ±1.5% | ±1.5% | ±1.5% |
| Inrush (1/2 Cycle Amps) | 80 | 120 | 180 | 180 | 410 | 520 | 610 |
| Efficiency | 92% | 92% | 94% | 95% | 96% | 96% | 96% |

Features

- Magnetic Circuit Breaker Protection
- Input Plug 15 or 20 Amp
- Output Receptacles (Duplex Style Isolated Ground)
- Power Indicator - Green LED