

Cuts your electric bills by up to 25%!

Now manufacturers, facilities managers and business owners everywhere can instantly, automatically and permanently reduce their electricity costs by up to 25 percent, while improving the effectiveness of their electrical power, which will extend equipment life, improve equipment functionality and provide the safety of minimized EMF radiation. All with the USES® Shunt Efficiency System A.C. Power Conditioner. The electrical watchdog that never sleeps.

Energy Savings and Protection

Energy savings are achieved for all inductive loads, including motorized equipment (air conditioning units, elevators, pumps, refrigerators, manufacturing machinery, etc.), and magnetically ballasted lighting, while reliable protection is automatically provided for all your surge-sensitive microprocessor-based equipment.

Easy Installation

USES commercial units are installed at electrical panels supplying inductive loads or at the disconnect links for large motors (elevators, air conditioning units, heavy-duty machinery, etc.). Units are also recommended for any panel at which surge protection is a primary concern. Once installed, USES provides comprehensive power conditioning

and enhancement, including power-factor improvement, RF-noise and total current content (including harmonic currents) reduction, improved load balancing, surge and spike protection and improved voltage regulation.

Proven Performance

Over 1,000 sites, including the U.S. Navy, U.S. Marine Corps, the State of Connecticut, Reebok International and Washington National Airport now enjoy the many benefits that USES provides.

Pays for Itself

A USES unit typically pays for itself within 18 to 24 months of installation.



203 443-8737



THE ELECTRICAL WATCH DOG

USES

USES MFG. INC., P.O. BOX 156, QUAKER HILL, CT 06371

BENEFITS

- Reduces power costs, typically from 10–15%; reductions up to 25% have been documented!
- Increases system capacity
- Extends electrical equipment life
- Reduces electrical equipment maintenance costs (and associated downtime)
- Improves equipment functionality
- Improves radio, TV and telephone reception (thanks to less line noise)
- Provides a healthier, EMF-reduced environment
- Environmentally responsible — saves energy!

"We had frequently experienced voltage transients. In several instances our computer-operated machinery was shut down due to power surges, causing damage to components being machined at the time.

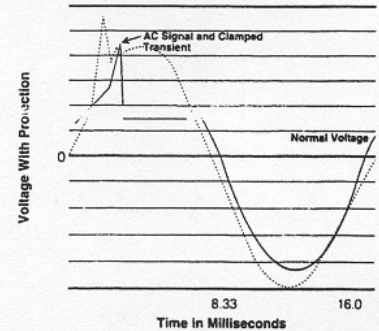
"Since installation of the USES Unit twelve months ago, AMTECH equipment has not experienced a single power transient of the nature previously experienced and we have not lost any productivity due to "dirty" power. We are very pleased with the USES Unit and would not hesitate to recommend it."

— Michael W. Kennison
General Manager, AMTECH EAST INC.
East Lyme, CT

FEATURES

- Maintenance-free
- Installs easily
- Reduces line current and wattage
- Helps to balance loads
- Reduces EMF radiation strength from point of connection back to the source
- Protects against surges and spikes
- Reduces line noise
- Improves voltage regulation
- Improves power factor
- All units backed by a three-year warranty

Line Voltage — With Protection



Graph of line voltage with applied transient versus time: With protection — transient is suppressed; electrical equipment is protected.

TECHNICAL SPECIFICATIONS

| MODEL | CMES-1 | CMES-3Y | CMES-3D | CMES-3Y / 480 | CMES-3D / 480 | CMES-3Y / 600 | CMES-3D / 600 |
|--------------------------------------|--|------------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| Line Voltage | 120/240 Vac | 120/208 Vac | 208 Vac | 277 / 480 Vac | 480 Vac | 347 / 600 Vac | 600 Vac |
| Nominal Freq. | 50Hz/60HZ | | | | | | |
| Power Dissipation per 8x20 µsec. | >650 joules | >1350 joules | 750 joules | >2700 joules | >1250 joules | >2850 joules | >2200 joules |
| Peak Pulse Current | >20,000 A | >30,000 A | >30,000 A | >35,000 A | >35,000 A | >50,000 A | >50,000 A |
| Max Surge Current per 8 x 20 µsec. | 10,000 A 4 shots | 10,000 A 4 shots | 10,000 A 4 shots | >20,000 A | >20,000 A | >30,000 A | >30,000 A |
| Nominal Clamping Voltage | 130/250 Vrms | 130/250 Vrms | 250 Vrms | 300 / 550 Vrms | 550 Vrms | 385 / 680 Vrms | 680 Vrms |
| Maximum Steady State Voltage | 340 V | 340/650 V | 650 V | 775 / 1500 V | 1500 V | 1025 / 1815 V | 1815 V |
| Response Time | <5 nanoseconds | | | | | | |
| Surge Rebound | inherent "self healing" property | | | | | | |
| Standby Power | >10 watts | >15 watts | >15 watts | >25 watts | >25 watts | >35 watts | >35 watts |
| Total Capacitance | 200 µF | 450 µF | 450 µF | 315 µF | 255µF | 315 µF | 255 µF |
| Operating Temp. | —40°C to +70°C | | | | | | |
| Unit Temp. Rise | <3°C after 24 hrs under full load conditions | | | | | | |
| Audible Noise at 3' | <2 dBA | | | | | | |
| Operating Life | >60,000 hrs with over 95% survival | | | | | | |
| Line Connections (THHN Single Cond.) | #10 | #8 | #8 | #8 | #8 | #6 | #6 |
| Circuit Breaker Required | 20 A, 2 pole | 30 A, 3 pole | 30 A, 3 pole | 30 A, 3 pole | 30 A, 3 pole | 40 A, 3 pole | 40 A, 3 pole |
| Dimensions (H x W x D) | 10"x 8"x 6" | 14"x 12"x 6" | 14"x 12"x 6" | 14"x 12"x 6" | 14"x 12"x 6" | 14"x 12"x 6" | 14"x 12"x 6" |
| Estimated Weight | 8 lbs | 17 lbs | 15 lbs | 20 lbs | 18 lbs | 26 lbs | 24 lbs |
| Estimated Savings (Note 1) | 1.0 kW 1.0 kWh/hr | 1.25 kW 1.25 kWh/hr | 1.5 kW 1.5 kWh/hr | 2.0 kW 2.0 kWh/hr | 3.0 kW 3.0 kWh/hr | 3.0 kW 3.0 kWh/hr | 4.0 kW 4.0 kWh/hr |
| Warranty | 3 years | | | | | | |

Note 1: kW and kWh savings are provided for inductive loads only. Actual savings depend upon load characteristics.



NEMA 1



USES MFG. INC., P.O. BOX 156, QUAKER HILL, CONNECTICUT 06375 • 203 443-USES (8737)

U.S. PATENT #5,105,327. FOREIGN PATENTS PENDING. Specifications subject to change without notice. USES MFG. INC. is an EPA Green Lights Ally and also a member of the Alliance To Save Energy. Affiliation does not indicate product endorsement.