

Single Phase High Frequency UPS

High Frequency

The double conversion inverter of the SHADOW is always on-line, eliminating noise, spikes, sags, and brownouts. Should utility power fail, the UPS's inverter provides no-break, uninterrupted output power to the critical load. This high frequency unit is listed to UL1778.

Latest Technology for Switch-Mode Power Supplies

The SHADOW model is designed for use on non-linear type (switch mode power supplies) computer loads without any derating while drawing sine-wave input current that is power factor corrected.

Sine Wave Power for the 21st Century

The SHADOW delivers computer-grade, sine-wave power; the preferred power source for all electronic equipment. Output voltages on all units are 120, 208, 240, 120/240, and 277 VAC (with output transformer).

Microprocessor Display

The SHADOW provides one of the most comprehensive monitoring packages. Its 40 X 4 line display shows multiple readings with remote monitoring through RS232 or RS485.

Safeguard™ Battery Management System

Crucial Power Products has designed (patent pending) a process for the real time ability to charge and monitor the battery system. This system utilizes a microprocessor technology to monitor the batteries critical levels and apply charging cycles in a method to substantially increase battery life.

Alarms

To alert you of possible problems, the SHADOW displays alarm messages on its control panel and provides RS 232/RS 485 outputs.

Extended Brownout Range

The SHADOW can produce clean, computer-grade power without draining its batteries, even when the input voltage is down to 80% of nominal. The smart electronics constantly analyze the input voltage thus preventing unnecessary battery depletion.

Isolation, Including Output Neutral To Ground Bonding

The SHADOW provides the galvanic electrical isolation required by FIPS PUB 94 (Federal Information Processing Standard) and it qualifies as a true, separately derived power source as defined by the National Electrical Code, Article 250-5d. This isolation allows the SHADOW to offer excellent RF noise filtering and single point grounding for sensitive electronic equipment (standard on all models with output transformer)

Caster Based, Small Footprint Cabinet

The SHADOW requires less computer room floorspace than most other UPS systems. Its compact, lightweight design saves overall space, facilitates handling and keeps shipping costs to a minimum.

RS232 & RS485 Computer Interface

The SHADOW can communicate with terminals, computers, and other local devices via its RS232 and RS485 ports standard on every model making the SHADOW compatible with today's most popular devices. Also standard are dry contact ports for remote monitoring/annunciation.



The SHADOW



- 3 to 20 kVA
- Listed to UL1778 UPS and UL924 Lighting Standards, by CSA
- Advanced, High Frequency Technology for Non-Linear Loads
- 92% Efficiency
- Sinusoidal Waveform
- Pulse Width Modulated (PWM)
- Continuous Self-Diagnostics
- Double Conversion Technology
- Quiet Operation and Small Size Fits Into The Most Sensitive Office or Computer Room Environment
- RS232 and RS485 Local port
- Microprocessor Controlled
- Safeguard™ Battery Management System
- 2 Year Limited Factory Warranty

The SHADOW Specifications

Power Rating: 3, 5, 7.5, 10, 12.5, 15, and 20 KVA

Input Voltage: 120 (3 & 5 KVA only), 208, 240, or 277 VAC, +15% to -20%

Output Voltages: 120, 208, 240, 120/240, and 277 VAC (All Standard with output transformer)

Output Frequency (Inverter Operation): 60 Hz \pm 0.5 Hz

Output Voltage Regulation: \pm 3%

Output Wave Form: Sine-Wave < 5% THD.

Efficiency: Minimum 92%

Crest Factor: 3:1 Typical

Surge Protection: The UPS will protect itself and the load against surges as defined in ANSI/IEEE C62.41 Categories A and B.

Isolation: Complete from line. Output neutral bonded to ground (with output transformer only)

Noise Isolation: -120 dB Common-Mode; -60 dB Transverse-Mode

Battery: Sealed maintenance-free (AGM) battery

Recharge Time: Conforms to UL Standards

Battery Voltage: KVA dependent

External Battery: Provisions for hardwire connection of optional external battery cabinets or DC source.

Environmental:

Humidity:

0 - 95% RH w/ no condensation

Operating Temperature:

UPS: 0° to 40°C. (32 -104°F)

Battery: 20° to 30°C. (68° - 86°F)

Storage Temperature:

-20° to 60°C. (-4° - 140°F)

Altitude: Up to 10,000 ft

Safety Agencies:

CUL, CSA Listed to UL1778,

MEA Approved; State Fire Marshal Approved (CA, NY, IL)

Cabinet Sizes with Standard Run

Times: (W x H x D)

3 - 12.5 kVA: 18" x 35" x 32"

15 - 20 kVA: 39" x 68" x 18"

STANDARD FEATURES

- Input Contactor
- Input Filter & Surge Filter Network
- Battery Breaker
- Bypass Static Switch
- 160 Character LCD Display
- Microprocessor Controlled
- High Frequency Inverter
- Monitoring via RS232 and RS485 local port
- Safeguard™ Battery Management Software for Maximizing Battery Life

OPTIONS

- Battery Cabinet for Extended Back-up Time
- Extended Warranty and Service Plans
- Internal Break-Before-Make Maintenance Bypass Switch
- Input Line Cord and Plug
- Input CB.
- Output CBs
- Receptacles (some model)
- Remote Monitoring

Power Rating (KVA)	Input Voltage	Model Number (Same Voltage Out as Voltage In)	Unit KW	Model Number (Multi Voltage Out) (Vout = 120,208,240,& 277)	Weights (LBS)	Backup Time (Full Load / 1/2 Load)
3.0	120	SH3.0A0100N1-VA	2.1	SH3.0A5800T1-VA	600	6 / 15 min.
	208	SH3.0B1300N1-VA	2.1	SH3.0B5800T1-VA	600	
	240	SH3.0D0400N1-VA	2.1	SH3.0D5800T1-VA	600	
	277	SH3.0R2500N1-VA	2.1	SH3.0R5800T1-VA	600	
5.0	120	SH5.0A0100N1-VA	3.5	SH5.0A5800T1-VA	900	8 / 20 min.
	208	SH5.0B1300N1-VA	3.5	SH5.0B5800T1-VA	900	
	240	SH5.0D0400N1-VA	3.5	SH5.0D5800T1-VA	900	
	277	SH5.0R2500N1-VA	3.5	SH5.0R5800T1-VA	900	
7.5	208	SH7.5B1300N1-VA	5.2	SH7.5B5800T1-VA	1150	7 / 18 min.
	240	SH7.5D0400N1-VA	5.2	SH7.5D5800T1-VA	1150	
	277	SH7.5R2500N1-VA	5.2	SH7.5R5800T1-VA	1150	
10	208	SH010B1300N1-VA	7	SH010B5800T1-VA	1600	10 / 25 min.
	240	SH010D0400N1-VA	7	SH010D5800T1-VA	1600	
	277	SH010R2500N1-VA	7	SH010R5800T1-VA	1600	
12.5	208	SH12.B1300N1-VA	8.8	SH12.B5800T1-VA	1850	8 / 20 min.
	240	SH12.D0400N1-VA	8.8	SH12.D5800T1-VA	1850	
	277	SH12.R2500N1-VA	8.8	SH12.R5800T1-VA	1850	
15	208	SH015B1300N1-VA	10.5	SH015B5800T1-VA	2250	7 / 18 min.
	240	SH015D0400N1-VA	10.5	SH015D5800T1-VA	2250	
	277	SH015R2500N1-VA	10.5	SH015R5800T1-VA	2250	
20	208	SH020B1300N1-VA	14	SH020B5800T1-VA	2750	6 / 15 min.
	240	SH020D0400N1-VA	14	SH020D5800T1-VA	2750	
	277	SH020R2500N1-VA	14	SH020R5800T1-VA	2750	

Contact Factory for other Power Rating, Voltages, Frequencies, and Back-Up Times.

Specifications are subject to change without prior notification.