# Professional Online UPS

## OL1000HV / OL1500HV / OL2000HV / OL3000HV
## OL1000LV / OL1500LV / OL2000LV / OL3000LV

The ATEN Professional Online UPS is an exceptional and innovative electrical apparatus that provides emergency power to a load when the input power source, or the main one, fails. The basic technology of an online UPS is the same as in a standby or line-interactive UPS, however, the ATEN Professional Online UPS provides a much greater current of AC-to-DC battery-charger / rectifier where the rectifier and inverter are designed to run continuously with improved cooling systems.

In all our years of working with computers, we've found the vast majority of hardware failures can be directly attributed to the stress hardware components experience during the shut-down and startup process, especially if power surges or blackouts are involved. With severe weather, the aging electrical grid, and hazards lurk inside users' own walls, their equipment is under constant attack from power problems. Even a brief loss of power, sags, or a momentary surge can ruin users' equipment and destroy irreplaceable data. Desktop computers don't have batteries built-in like laptops do. If users are working on a desktop during a power outage, the system would come to an immediate halt. Not only would users lose their work, but the process imposes unnecessary stress on their machine.

If a UPS is present and a power loss occurs, the batteries in the UPS would keep the power steady and unchanged. The ATEN Professional Online UPS adjusts incoming AC power, provides battery backup to pass through most outages, and saves open files automatically. When power is restored, the UPS begins recharging its batteries.

The Online UPS unit continuously filters wall power through the battery system. Since the attached electronics run completely off the battery (that are always topped off by the external power supply), there is never a single millisecond of power interruption when there is power loss or voltage regulation issues. The Online UPS unit thus acts as an electronic firewall between users' devices and the outside world by stabilizing all the electricity to which users' devices are exposed.

The UPS has one USB port and one serial port that allow connection and communication between the UPS and the connected computer. Power management software installed on the connected computer(s) gives IT professionals the tools they need to easily monitor and manage their backup power. This advanced software allows users to access vital UPS battery conditions, load levels, and runtime information as well as provide unattended shut down of network computers and virtual machines connected to a battery backup during a power event.

The ATEN Professional Online UPS offers a different way to access detailed UPS settings and information with an LCD screen. The illuminated LCD screen displays input voltage, battery capacity, and more, and includes a three-button configuration interface and audible alarms for different modes of operation.

OL1000LV / OL1500LV /
OL2000LV / OL3000LV
Front View

Rear View (TUV-Certified Models)

OL1000LV-AT

OL1500LV-AT

OL2000LV-AT

OL3000LV-AT

Rear View (UL-Certified Models)

OL1000LV-ATA

OL1500LV-ATA

OL2000LV-ATA

OL3000LV-ATA

## Features

- True double-conversion — output power factor is 1 (maximum), meaning all of the power supplied is being used for productive work and makes work the most efficient. (*OL1500LV, OL2000LV, OL3000LV are not included due to the UL certification.)
- Output voltage regulation < 1 % — provides higher performance and efficiency for critical applications
- Programmable power management outlets — users can easily and independently control load segments. During power failure, this feature enables users to extend battery time to mission-critical devices by shutting down noncritical devices
- Emergency Power Off function (EPO) — EPO connector at rear panel allows emergency UPS Power Off from a remote location
- SNMP + USB + RS-232 multiple communications — allows either USB or RS-232 communication ports to work with SNMP interface simultaneously
- Hot swappable battery design — all potential UPS maintenance, including complete power module exchange, can be performed without powering down connected equipment as long as utility power is on, users can leave the UPS and connected equipment on while replacing the battery
- ECO mode for energy saving — offers up to 97 % efficiency to cut energy usage and cost. UPS power application via static bypass timely returns to online double conversion when the need arises
- Provides over-voltage cut-off protection and surge immunity by MOV for full-time equipment protection
- High power factor charger up to 1000W capacity with very low ripple current when charging battery
- Multi-functional LCD interface — displays immediate, detailed information on input voltage, battery capacity, power status, battery status, operating status, and assessed backup runtime, etc.
- Smart battery charger design to optimize battery performance — adjusts charging voltage according to outside temperatures and extends the useful service life of batteries

# Specifications

| | OL1000HV | OL1500HV | OL2000HV | OL3000HV |
|---|---|---|---|---|
| **General** | | | | |
| UPS Topology | Double-Conversion | | | |
| Energy Saving (Max) | > 96 % (ECO) | > 96 % (ECO) | > 96 % (ECO) | > 96 % (ECO) |
| | > 89 % (AC) | > 89 % (AC) | > 90 % (AC) | > 91 % (AC) |
| | > 88 % (Batt) | > 88 % (Batt) | > 89 % (Batt) | > 90 % (Batt) |
| HID Compliant USB Port | Yes | | | |
| Serial Port | Yes | | | |
| SNMP / HTTP Remote Monitoring | Yes - Optional SNMP CARD | | | |
| **Input** | | | | |
| Voltage | 220 / 230 / 240 VAC | | | |
| Input Voltage Range | 160 – 300 Vac ± 5 % @ 100 % load<br>110 – 300 Vav ± 5 % @ 50 % load<br>Derate capacity to 80 % when the output voltage is adjusted to 200 Vac / 208 Vac. | | | |
| Input Frequency Range | 40 Hz ~ 70 Hz | | | |
| Rated Input Current | 4.8 A | 7.2 A | 9.7 A | 14.5 A |
| Input Power Factor | ≧ 0.99 @ Nominal Voltage (100 % load) | | | |
| Cold Start | Yes | | | |
| Plug Type | IEC 320 C14 | IEC 320 C14 | IEC 320 C20 | IEC 320 C20 |
| Power Cord | 6 ft (Schuko Plug / UK Plug / AU Plug / IEC Plug) | | | |
| **Output** | | | | |
| VA | 1000 | 1500 | 2000 | 3000 |
| Watts | 1000 | 1500 | 2000 | 3000 |
| On Battery Waveform | Sine Wave | | | |
| On Battery Frequency | 50 / 60 Hz +/- 0.1 Hz | | | |
| Outlets - Total | 8 | 8 | 8 | 9 |
| Outlet Type | (8) IEC 320 C13 | (8) IEC 320 C13 | (8) IEC 320 C13 | (8) IEC 320 C13 +<br>(1) IEC 320 C19 |
| Outlets - Battery & Surge Protected | 8 | 8 | 8 | 9 |
| Rated Power Factor | 1 | 1 | 1 | 1 |
| Crest Factor | 3:1 | | | |
| Harmonic Distortion | ≦ 2 % THDi (Linear Load)<br>≦ 4 % THDi (Non-linear Load) | | | |
| Voltage Regulation | ± 1 % (Batt) | | | |
| Transfer Time (AC to Batt.) | 0 ms | | | |
| Transfer Time(Inverter to Bypass) | 4 ms (ECO) | | | |
| **Battery** | | | | |
| Runtime at Half Load (min) | 9.44 | 9.44 | 9.56 | 9.79 |
| Runtime at Full Load (min) | 3.10 | 3.30 | 3.19 | 3.41 |
| Battery Type | Sealed Lead-Acid | | | |
| Battery Pack Voltge | 24 V | 36 V | 48 V | 72 V |
| Battery Size | 12 V / 9 AH | | | |
| Battery Quantity | 2 | 3 | 4 | 6 |
| Hot-Swappable | Yes | | | |
| Typical Recharge Time | 3 hours recover to 95 % capacity @ 2A charging current. Max charger current 12A | 3 hours recover to 95 % capacity @ 2A charging current. Max charger current 12A | 3 hours recover to 95 % capacity @ 2A charging current. Max charger current 12A | 3 hours recover to 95 % capacity @ 2A charging current. Max charger current 8A |
| Extended Battery Module | BP24V18AH | BP36V18AH | BP48V18AH | BP72V18AH |
| Replacement Battery Pack | BC24V9AH | BC36V9AH | BC48V9AH | BC72V9AH |
| Replacement Battery Pack Quantity | 1 | | | |
| **Physical Properties** | | | | |
| Rack Unit | 2 U | | | |
| Type | Rack / Tower | | | |
| Dimensions (L x W x H) | 8.80 x 43.80 x 41.00 cm | 8.80 x 43.80 x 41.00 cm | 8.80 x 43.80 x 51.00 cm | 8.80 x 43.80 x 63.00 cm |
| Weight | 12.70 kg | 14.30 kg | 20.70 kg | 28.70 kg |
| **Environmental** | | | | |
| Temperature (Operating / Storage) | 0 – 40 °C (non-condensing) / -20 – 50 °C | | | |
| Humidity (Operating and Storage) | 20 – 90 % RH / 10 % – 95 %(No condensing) | | | |
| Audible noise at 1M from surface of unit | Less than 50 dB | | | |
| **Certification** | CE | | | |
| **Approval** | RoHS | | | |

# Specifications

| | OL1000LV-AT (TUV) | OL1000LV-ATA (UL) | OL1500LV-AT (TUV) | OL1500LV-ATA (UL) |
|---|---|---|---|---|
| **General** | | | | |
| UPS Topology | Double-Conversion | | | |
| Energy Saving (Max) | > 96 % (ECO)<br>> 89 % (AC)<br>> 88 % (Batt) | | | |
| HID Compliant USB Port | Yes | | | |
| Serial Port | Yes | | | |
| SNMP / HTTP Remote Monitoring | Yes - Optional SNMP CARD | | | |
| **Input** | | | | |
| Voltage | 100 / 110 / 115 / 120 / 125 / 127 V<br>(127 Vac not applicable for U.S. region) | | | |
| Input Voltage Range | 80 - 150 Vac ± 5 % @ 100 % load<br>55 - 150 Vac ± 5 % @ 50 % load<br>Derate capacity to 80 % when the output voltage is adjusted to 100 Vac | | | |
| Input Frequency Range | 40 Hz ~ 70 Hz | | | |
| Rated Input current | 9.3 A | | 13.2 A | |
| Input Power Factor | ≧ 0.99 @ nominal voltage (100 % load) | | | |
| Cold Start | Yes | | | |
| Plug Type | NEMA 5-15P | | | |
| Power cord | 6 ft | | | |
| **Output** | | | | |
| VA | 1000 | | 1500 | |
| Watts | 1000 | | 1450 | 1430 |
| On Battery Waveform | Sine Wave | | | |
| On Battery Frequency | 50 / 60 Hz +/- 0.1 Hz | | | |
| Outlets - Total | 8 | | | |
| Outlet Type | (8) NEMA 5-15R | | | |
| Outlets - Battery & Surge Protected | 8 | | | |
| Rated Power Factor | 1 | | 0.97 | |
| Crest Factor | 3:1 | | | |
| Harmonic Distortion | ≦2 % THDv (Linear Load)<br>≦ 4 % THDv (Non-linear Load) | | | |
| Voltage Regulation | ± 1 % (Batt) | | | |
| Transfer Time (AC to Batt.) | 0 ms | | | |
| Transfer Time (Inverter to Bypass) | 4 ms (ECO) | | | |
| **Battery** | | | | |
| Runtime at Half Load (min) | 9.44 | 10.1 | 9.44 | 10.3 |
| Runtime at Full Load (min) | 3.1 | 2.95 | 3.3 | 2.96 |
| Battery Type | Sealed Lead-Acid | | | |
| Battery Pack Voltage | 24 V | | 36 V | |
| Battery Size | 12V / 9 AH | | | |
| Battery Quantity | 2 | | 3 | |
| Hot-Swappable | Yes | | | |
| Typical Recharge Time | 3 hours recover to 95 % capacity @ 2 A charging current.<br>Max. charger current 8 A | | | |
| Extended Battery Module | BP24V18AH | | BP36V18AH | |
| Replacement Battery Pack | BC24V9AH | | BC36V9AH | |
| Replacement Battery Pack Quantity | 1 | | | |
| **Physical Properties** | | | | |
| Rack Unit | 2U | | | |
| Type | Rack / Tower | | | |
| Dimensions (L x W x H) | 8.80 x 43.80 x 41.00 cm | | 8.80 x 43.80 x 41.00 cm | |
| Weight | 12.90 kg | | 14.60 kg | |
| **Environmental** | | | | |
| Temperature (Operating / Storage) | 0 – 40 °C (non-condensing) / -20 – 50 °C | | | |
| Humidity (Operating & Storage) | 20 – 90 % RH / 10 % – 95 % (No condensing) | | | |
| Audible noise at 1M from surface of unit | Less than 50 dB | | | |
| **Certifications** | | | | |
| Certifications | cTUVus | UL | cTUVus | UL |
| Approvals | VCCI, BSMI, FCC Class A, RoHS | | | |

# Specifications

| | OL2000LV-AT (TUV) | OL2000LV-ATA (UL) | OL3000LV-AT (TUV) | OL3000LV-ATA (UL) |
|---|---|---|---|---|
| **General** | | | | |
| UPS Topology | Double-conversion | | | |
| Energy Saving (Max) | > 96 % (ECO)<br>> 90 % (AC)<br>> 89 % (Batt) | | > 96 % (ECO)<br>> 91 % (AC)<br>> 90 % (Batt) | |
| HID Compliant USB Port | Yes | | | |
| Serial Port | Yes | | | |
| SNMP / HTTP Remote Monitoring | Yes - Optional SNMP CARD | | | |
| **Input** | | | | |
| Voltage | 100 / 110 / 115 / 120 / 125 / 127 V<br>(127 Vac not applicable for U.S. region) | | | |
| Input Voltage Range | 80 - 150 Vac ± 5 % @ 100 % load<br>55 - 150 Vac ± 5 % @ 50 % load<br>Derate capacity to 80 % when the output voltage is adjusted to 100 Vac | | | |
| Input Frequency Range | 40 Hz ~ 70 Hz | | | |
| Rated Input current | 17.6 A | | 26.4 A | |
| Input Power Factor | ≧ 0.99 @ nominal voltage (100 % load) | | | |
| Cold Start | Yes | | | |
| Plug Type | NEMA 5-20P | | NEMA L5-30P | |
| Power cord | 6 ft | | | |
| **Output** | | | | |
| VA | 2000 | | 3000 | |
| Watts | 1930 | | 2880 | 2850 |
| On Battery Waveform | Sine Wave | | | |
| On Battery Frequency | 50 / 60 Hz +/- 0.1 Hz | | | |
| Outlets - Total | 8 | | 9 | 7 |
| Outlet Type | (8) NEMA 5-20R | | (8) NEMA 5-20R,<br>(1) NEMA L5-30R | (6) NEMA 5-20R,<br>(1) NEMA L5-30R |
| Outlets - Battery & Surge Protected | 8 | | 9 | 7 |
| Rated Power Factor | 0.97 | | 0.96 | |
| Crest Factor | 3:1 | | | |
| Harmonic Distortion | ≦2 % THDv (Linear Load)<br>≦ 4 % THDv (Non-linear Load) | | | |
| Voltage Regulation | ± 1 % (Batt) | | | |
| Transfer Time (AC to Batt.) | 0 ms | | | |
| Transfer Time (Inverter to Bypass) | 4 ms (ECO) | | | |
| **Battery** | | | | |
| Runtime at Half Load (min) | 9.56 | 10.0 | 9.79 | 10.1 |
| Runtime at Full Load (min) | 3.19 | 2.95 | 3.41 | 2.96 |
| Battery Type | Sealed Lead-Acid | | | |
| Battery Pack Voltage | 48 V | | 72 V | |
| Battery Size | 12V / 9 AH | | | |
| Battery Quantity | 4 | | 6 | |
| Hot-Swappable | Yes | | | |
| Typical Recharge Time | 3 hours recover to 95 % capacity @ 2 A charging current.<br>Max. charger current 8 A | | | |
| Extended Battery Module | BP48V18AH | | BP72V18AH | |
| Replacement Battery Pack | BC48V9AH | | BC72V9AH | |
| Replacement Battery Pack Quantity | 1 | | | |
| **Physical Properties** | | | | |
| Rack Unit | 2U | | | |
| Type | Rack / Tower | | | |
| Dimensions (L x W x H) | 8.80 x 43.80 x 51.00 cm | | 8.80 x 43.80 x 63.00 cm | |
| **Weight** | 21.10 kg | | 29.50 kg | |
| Environmental | | | | |
| Temperature (Operating / Storage) | 0 – 40 °C (non-condensing) / -20 – 50 °C | | | |
| Humidity (Operating & Storage) | 20 – 90 % RH / 10 % – 95 % (No condensing) | | | |
| Audible noise at 1M from surface of unit | Less than 50 dB | | | |
| **Certifications** | | | | |
| Certifications | cTUVus | UL | cTUVus | UL |
| Approvals | VCCI, BSMI, FCC Class A, RoHS | | | |

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