

## 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
<b>General</b>				
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			
<b>Input</b>				
Voltage	220 / 230 / 240 VAC			
Input Voltage Range	160 – 300 Vac ± 5 % @ 100 % load 110 – 300 Vav ± 5 % @ 50 % load 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)			
<b>Output</b>				
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 + (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) ≤ 4 % THDi (Non-linear Load)			
Voltage Regulation	± 1 % (Batt)			
Transfer Time (AC to Batt.)	0 ms			
Transfer Time(Inverter to Bypass)	4 ms (ECO)			
<b>Battery</b>				
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 Voltage	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			
<b>Physical Properties</b>				
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
<b>Environmental</b>				
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			
<b>Certification</b>	CE			
<b>Approval</b>	RoHS			

# Specifications

	OL1000LV-AT (TUV)	OL1000LV-ATA (UL)	OL1500LV-AT (TUV)	OL1500LV-ATA (UL)
<b>General</b>				
UPS Topology	Double-Conversion			
Energy Saving (Max)	> 96 % (ECO) > 89 % (AC) > 88 % (Batt)			
HID Compliant USB Port	Yes			
Serial Port	Yes			
SNMP / HTTP Remote Monitoring	Yes - Optional SNMP CARD			
<b>Input</b>				
Voltage	100 / 110 / 115 / 120 / 125 / 127 V (127 Vac not applicable for U.S. region)			
Input Voltage Range	80 - 150 Vac $\pm$ 5 % @ 100 % load 55 - 150 Vac $\pm$ 5 % @ 50 % load 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	$\geq$ 0.99 @ nominal voltage (100 % load)			
Cold Start	Yes			
Plug Type	NEMA 5-15P			
Power cord	6 ft			
<b>Output</b>				
VA	1000		1500	
Watts	1000		1450	1430
On Battery Waveform	Sine Wave			
On Battery Frequency	50 / 60 Hz $\pm$ 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	$\leq$ 2 % THDv (Linear Load) $\leq$ 4 % THDv (Non-linear Load)			
Voltage Regulation	$\pm$ 1 % (Batt)			
Transfer Time (AC to Batt.)	0 ms			
Transfer Time (Inverter to Bypass)	4 ms (ECO)			
<b>Battery</b>				
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. Max. charger current 8 A			
Extended Battery Module	BP24V18AH		BP36V18AH	
Replacement Battery Pack	BC24V9AH		BC36V9AH	
Replacement Battery Pack Quantity	1			
<b>Physical Properties</b>				
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	
<b>Environmental</b>				
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			
<b>Certifications</b>				
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)
<b>General</b>				
UPS Topology	Double-conversion			
Energy Saving (Max)	> 96 % (ECO) > 90 % (AC) > 89 % (Batt)		> 96 % (ECO) > 91 % (AC) > 90 % (Batt)	
HID Compliant USB Port	Yes			
Serial Port	Yes			
SNMP / HTTP Remote Monitoring	Yes - Optional SNMP CARD			
<b>Input</b>				
Voltage	100 / 110 / 115 / 120 / 125 / 127 V (127 Vac not applicable for U.S. region)			
Input Voltage Range	80 - 150 Vac $\pm$ 5 % @ 100 % load 55 - 150 Vac $\pm$ 5 % @ 50 % load 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	$\geq$ 0.99 @ nominal voltage (100 % load)			
Cold Start	Yes			
Plug Type	NEMA 5-20P		NEMA L5-30P	
Power cord	6 ft			
<b>Output</b>				
VA	2000		3000	
Watts	1930		2880	
On Battery Waveform	Sine Wave			
On Battery Frequency	50 / 60 Hz +/- 0.1 Hz			
Outlets - Total	8		7	
Outlet Type	(8) NEMA 5-20R		(6) NEMA 5-20R, (1) NEMA L5-30R	
Outlets - Battery & Surge Protected	8		7	
Rated Power Factor	0.97		0.96	
Crest Factor	3:1			
Harmonic Distortion	$\leq$ 2 % THDv (Linear Load) $\leq$ 4 % THDv (Non-linear Load)			
Voltage Regulation	$\pm$ 1 % (Batt)			
Transfer Time (AC to Batt.)	0 ms			
Transfer Time (Inverter to Bypass)	4 ms (ECO)			
<b>Battery</b>				
Runtime at Half Load (min)	9.56		10.1	
Runtime at Full Load (min)	3.19		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. Max. charger current 8 A			
Extended Battery Module	BP48V18AH		BP72V18AH	
Replacement Battery Pack	BC48V9AH		BC72V9AH	
Replacement Battery Pack Quantity	1			
<b>Physical Properties</b>				
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	
<b>Weight</b>	21.10 kg		29.50 kg	
<b>Environmental</b>				
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			
<b>Certifications</b>				
Certifications	cTUVus		UL	
Approvals	VCCI, BSMI, FCC Class A, RoHS			

## ATEN International Co., Ltd.

3F, No.125, Sec. 2, Datung Rd., Sijhih District., New Taipei City 221, Taiwan  
 Phone: 886-2-8692-6789 Fax: 886-2-8692-6767  
 www.aten.com E-mail: marketing@aten.com

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