

ON SERIES® 3.3 and 5.0kVA EXTENDED RUNTIME UPS: For some, conventional UPSs are “good enough.” But many find ordinary protection measures inadequate. Others face performance expectations with no tolerance for downtime. ON Series Power Conditioned UPSs are engineered to satisfy these demanding applications.

Electronic systems

Electronic systems are vital components of your business. Yet supporting and maintaining them is an often overlooked expense. Over the course of a year, help requests can cost you a bundle. But how much of that cost is inevitable? How much is preventable? What's the best way to prevent system damage? What's the best way to gather and manage system information?

Ultimate assurance of system reliability

All UPS makers acknowledge the broad range of power disturbances that compromise system reliability. All address them to some degree. But here's the difference — ONEAC's proprietary power conditioning technology eliminates power problems entirely. Providing a level of protection that even the highest quality surge suppressor and filter technology, used in most UPSs, cannot match.

Low maintenance and easy serviceability

Exceptionally dependable battery backup. We start with premium quality batteries. Thermally isolate them for maximum life. And employ an unique charging circuitry attuned to the specific battery characteristics of each model — speeding recovery and minimizing stress on batteries. Automatic monitoring of battery condition ensures readiness, and gives plenty of warning when replacement is recommended. Our patented battery pack allows front access hot-swap, user-safe replacement in minutes — without training, without downtime, and without risk.

Hot-swap, user-safe replaceable modules. The electronic control module (containing the inverter, charger and main control circuits) and the power module (containing the switching devices) are hot-swap, user replaceable. So even firmware upgrades or critical electronic elements can be serviced on-site, on-line without powering down the UPS or the load. The fully conditioned bypass feature ensures that the critical load continues to receive clean, ONEAC conditioned power during the hot-swap process.

Proven durability, backed by a 5-year warranty

The robust design of the ONEAC UPS is impervious to the harshest electrical environments. Designed and manufactured under ISO9001 quality procedures, ON Series UPSs are exceptionally reliable. With an average mean time between failures more than twice as long as leading competitors. No surprise, then, that we back our UPSs with greater confidence — 5 years on all power and control systems, 2 years on the battery sub-system.



- **Full-time, on-line isolating transformer:** eliminates all power contaminants
- **ONBoost®:** compensates for line sags and brownouts, conserves batteries
- **Powerful battery charger:** better than most typical UPS systems
- **Hot-swap, user-safe, replacement of batteries:** minimizes cost and downtime
- **Extended runtime:** for applications requiring 12 hours or more of battery backup
- **Comprehensive front-panel display:** reports on the UPS load capacity in use, battery sub-system, and UPS system status condition
- **Intelligent fault-response communications:** for advanced diagnostics and remote UPS status monitoring
- **Remote power-off interface:** for applications that require a safety UPS output OFF control
- **Compact design:** Ideal for space restricted areas
- **Sinusoidal waveform:** supports even the most sensitive loads
- **Integrated bypass switch:** enables safe, hot-swap user replacement of electronic modules
- **Future growth protection:** the ON3305 models can easily and safely be upgraded to 5000VA on-site by the user.
- **Voltage input/output selection:** allow the factory-set voltages to be adjusted on-site if necessary
- **5-year warranty:** the best assurance of product quality and performance in the industry

Minimize costs & downtime



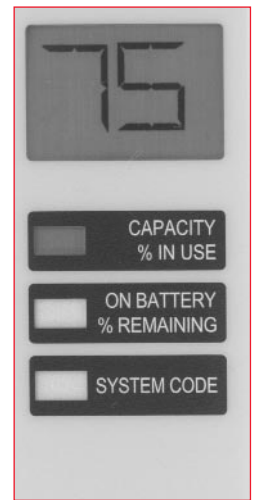
The low-impedance isolation transformer eliminates surges and spikes without contaminating the ground. That, combined with ONEAC's Virtual Kelvin Ground®, completely eliminates noise in all modes and increases reliability of the critical load—thereby, reducing service and support costs. ONEAC's low-impedance, isolation transformer provides a level of protection superior to surge suppressor and filter-based systems used in most on-line and line-interactive UPS systems—providing a higher level of confidence in system reliability.

...with low maintenance

ONEAC batteries last longer because they are fully-isolated from other heat generating components. ONBoost technology extends battery life by compensating for momentary voltage drops during low-voltage brownout periods without using battery power.

A carefully balanced, powerful charger (with ten times the recharging ability of typical UPS systems) charges the batteries quickly and safely, without straining the batteries. Ensuring emergency power in case of multiple outages. It even charges extended battery systems efficiently without the use of expensive external chargers.

Comprehensive front-panel reports on the UPS load capacity, the battery system, and the UPS system status.



... and easy serviceability



End-users can safely replace batteries in a snap with ONEAC's front access, hot-swap batteries. Hot-swap control and power module replacement is quick, easy and safely performed on-site by the user.

Comprehensive front-panel display

An automatic self test ensures battery and system readiness. The user-friendly front-panel display reports on the UPS load capacity in use, battery sub-system, and several UPS system status conditions.

Hot-swap, user replaceable batteries

The smart "replace battery" reminder provides advanced notice when the battery is near the end of its life. No need to shut down the critical load or call for specialized service. ONEAC has streamlined the process. Hot-swap battery replacement is quick, easy, and safe. The critical load receives ONEAC conditioned power during the entire process.

Hot-swap, user replaceable control and power modules

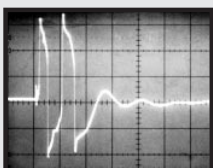
Optional on-board full maintenance bypass and unique UPS design virtually eliminate downtime for upgrades or repairs if ever needed. Control logic components (inverter, charger, and control systems) and the power components (switching devices) are housed in separate modules. The bypass switch allows user-safe, hot-swap replacement of the modules* while the critical load continues operating with ONEAC conditioned power.

*Standard bypass switch allows hot-swap replacement of the control module only

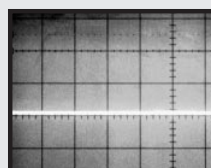
Power conditioning ... the ounce of prevention that pays for a pound of cure

A UPS gives you time to save data and exit programs in case of a power outage. That's great, as far as it goes. But the best UPS in the world won't protect your systems from the harmful transients that assault them every day. High frequency transients gradually degrade system integrity, and that's what causes the most system downtime.

Some events can't be prevented, they can only be managed with battery backup. Power outages, for example. But high frequency transients on line voltage from machinery, copiers and light dimmers can be prevented—with effective power conditioning.

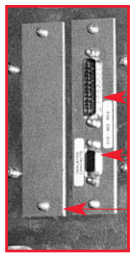


Oscilloscope reveals high frequency transients coming from the output of a conventional power protection product. These transients can pit, scar and corrode delicate microprocessor circuitry, causing components to run hot, run unreliably and eventually fail.



Here's the clean signal coming from the output of an ONEAC power conditioning UPS. ONEAC's technology eliminates extreme variations in amplitude and frequency that can degrade, disrupt, or destruct your vital electronic systems.

The ultimate in control



25-pin serial port

9-pin port

expansion slot

ON Series 3.3 & 5.0kVA UPS back panel

Communications

Two interface slots are standard on the ON Series 3.3 & 5.0kVA UPS to simplify management and administration. The first slot provides a dual function interface for Basic or Advanced communications and an interface for Nortel Meridian PBX systems or other applications that require fully isolated contact closures. The second slot is used for expansion and may be equipped with the optional ONEnc™ SNMP agent and web server with browser interface.

Emergency power off

The Remote Off Interface enables a remote signal to logically disable the UPS output in case of emergency. A pre-engineered, cost-effective solution for meeting safety codes and regulations for applications requiring emergency power off. An optional Semi S-2 compliant emergency mains off (EMO) is also available.

Extended runtime

ONEAC's high powered battery systems satisfy emergency runtime requirements with high powered, compact line-up-and-match cabinets.

Small footprint

The standard pedestal system and the optional rackbuilder kit make the ON Series 3.3 & 5.0kVA UPSs ideal for space restricted areas — requiring only four inches (front and back, zero space on the sides) for ventilation.

Easy to upgrade a 3.3kVA to a 5.0kVA

The capacity of the ON3305 model can easily be upgraded on-site to 5.0 kVA to accommodate application growth. There is no need to shut down the UPS or the critical load during this user-safe conversion procedure.

External voltage selection

An external voltage selection mechanism allows the user or the installer to quickly and safely change factory-set input/output operating voltages.

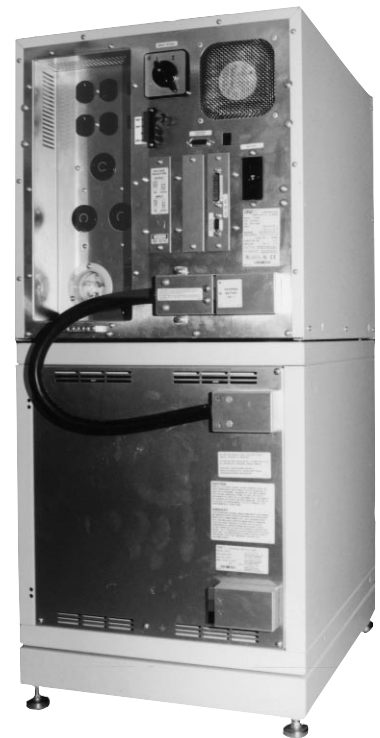
Flexible input/output capabilities

Input may either be hardwired or provided with a power cord. Output may be hardwired or equipped with a receptacle panel specific to your application.

Easy placement and installation

A ramp pallet design provides easy unloading. Wheels make UPS placement easy. Load levelers set the unit in place securely. Seismic mounting ability is standard on all 3.3 and 5.0kVA units.

. . . and flexibility



The ON Series 3.3 & 5.0kVA UPS and battery cabinets are equipped with an external environmental chassis safety ground.

UPS Options

- **Rackbuilder kit:** ideal for space restricted areas
- **Additional batteries:** for extended runtime applications
- **Semi S2-93 compliant EMO:** provides fail-safe *emergency power off*, in accordance with OSHA and NFPA guidelines
- **Full maintenance bypass:** for safe service of control and power modules without disrupting the load
- **ON3305:** upgradeable 3.3kVA allows hot-swap conversion upgrade to 5.0kVA capacity.

Communications Options

- **MopUPS® Communications Software:** provides fault response and UPS and system management
- **ChangeUPS™ Communications Software:** for remote diagnostics or configuration
- **ONEREMOTE™:** intelligent modem for remote alerts
- **ONEnc:** SNMP agent and WEB server w/browser interface
- **ONEPLUS™:** allows multi-server shutdown
- **Nortel Communications Interface Cable:** provides remote UPS information to system monitor port of PBX

Power conditioning

ONEAC's unique power conditioning architecture provides superior protection against the full range of power line disturbances. Components include:

Full output isolation: ONEAC's proprietary transformer design integrates power conditioning magnetics and voltage conversion magnetics in a single compact unit. Provides superior protection against lightning and other high energy surges.

Virtual Kelvin Ground: Eliminates the full spectrum of conducted power line noise (from 50 kHz to 10 MHz) in all modes, reduces the effect of electrostatic discharge (ESD) and provides an exceptionally clean, signal reference ground for electronic systems.

Communications

Basic Mode provides standard protocols recognized by UPS monitoring software supplied with Windows NT, NetWare and Banyan operating systems.

Advanced Mode uses ONEAC's content-rich ASCII packets to communicate with ONEAC's MopUPS family of UPS monitoring software for NetWare, Windows, a full catalog of UNIX operating systems and SNMP.

Contact Closures for Nortel Meridian PBX systems or other applications that require fully isolated contact closures.

Global approvals

Models for North America are FCC Class A certified and listed under UL 1778 and CSA22.2 safety standards. Models for Europe carry the CE marks and are tested under the following standards: EN50091, EN60950, EN50081-1, EN55022 (CISPR 22), EN50082-1, IEC801-2, IEC801-3 and IEC801-4.

Performance Characteristics

Nominal input and output voltage (model specific):

208/220-240V in, 120/208/220-240V out
208 in, 208 out
220-240 in, 220-240 out
230V in, 230V out

Frequency (Hz): 60Hz or 50/60Hz auto-detect

Surge voltage withstand capability: ANSI/IEEE C62.41 Category A&B, 6kV/200 & 500 Amp, 100kHz Ringwave

Surge voltage let-through (max): less than 10V Normal mode (L-N), less than 0.5V Common mode (N-G) when subjected to 6kV ANSI/IEEE C62.41 Cat. A

Normal & common mode clamping response time: instantaneous

Transfer time (typical/max): < 2.0 / 3.0 milliseconds

On-battery output voltage: sinusoidal

ONBoost: boosts output voltage 12.5% above input voltage if between -29% & -1% of nominal

Load power factor range (crest factor): UPS .65 to 1.0 (3) — will support loads rated 0.5 to 1.0 (<5)

Batteries: sealed, maintenance-free lead acid with a 3-6 year typical lifetime

Recharge time to 60% available capacity: 2-4 hours per battery cabinet using standard 500 watt charger

Input frequency tolerance: 60Hz models = 57-63Hz, 50/60Hz models = 47-63Hz

ONEAC is a UL/BSI
registered corporation —
Certification No. A2900



SERIES	ON3300	ON3305 (upgradeable to 5.0kVA)	ON5000	STANDARD BATTERY CABINET (one string) (10, 17 AH Batteries)	BATTERY CABINET (two strings) (20, 17 AH Batteries)
Maximum capacity (volt-amps/watts)	3300/2200	3300/2200	5000/3400	NA	NA
Input Connector	hardwired or L6-30P	hardwired or 6-50P	hardwired or 6-50P	NA	NA
Output Connections*	hardwired	hardwired	hardwired	NA	NA
Maximum height—in. (cm.)**	17.5 (44)	17.5 (44)	17.5 (44)	17.5 (44)	17.5 (44)
Maximum width—in. (cm.)	17 (45)	17 (45)	17 (45)	17 (45)	17 (45)
Maximum depth—in. (cm.)	22 (56)	22 (56)	22 (56)	22 (56)	22 (56)
Net weight—lbs. (kg.)**	226 (103)	256 (116)	256 (116)	218 (99)	356 (161)
Shipping weight—lbs. (kg.)**	256 (116)	286 (130)	286 (130)	248 (112)	386 (175)

*Several output receptacle panel configurations available upon request.

**Add 4.2 in. (11 cm.) to height and 24 lbs. (11 kg.) to weight for systems with wheel base.

STANDARD BATTERY CABINET (Up to two strings per cabinet)

			NUMBER OF BATTERY STRINGS					
			1	2	3	4	5	6*
POWER HEAD REQUIRED	VA/WATT LOAD		RUNTIME (MINUTES)					
ON3300/3305 ON5000	1650/1100	53**	133	227	332	445	566	
ON3300/3305 ON5000	1950/1300	43**	107	182	266	357	454	
ON3300/3305 ON5000	2550/1700	30**	75	128	187	251	319	
ON3300/3305 ON5000	3000/2000	24**	61	103	151	202	257	
ON3300/3305 ON5000	3300/2200	22**	53	91	133	178	227	
ON5000	3600/2400	19	48	81	119	159	202	
ON5000	4050/2700	16	41	70	102	136	173	
ON5000	4500/3000	15	36	63	89	120	151	
ON5000	4700/3150	13	34	60	84	112	142	
ON5000	5000/3400	12	31	53	77	103	131	

*Longer runtime is available. Contact Factory.

**For ON3300 and ON3305 applications that require less runtime, contact your ONEAC representative.

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compliant

All ONEAC-manufactured products are Y2K compliant.

A CHLORIDE POWER PROTECTION COMPANY

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