



## The 5 Most Important (yet often overlooked) Considerations When Purchasing a UPS (Battery Backup) System:

- Battery Life Expectancy:** ONEAC's typical battery life is 4-6 years, over twice "typical" life.
- Heat and Fast Recharge are the two main elements which shorten battery life. ONEAC takes careful steps to avoid both. APC boasts the industry's fastest charger to the sacrifice of battery life (typically 18-24 months) and change-out problems due to swelling.
  - ONEAC utilizes a temperature compensated non-linear charger. Colder ambient means quicker charging and vice-versa. Charge is quick to first 60% and then slowed to preserve battery life and integrity.
  - ONEAC thermally isolates its batteries in a separate compartment away from internal heat generating components – unlike all of its competitors.

- Battery Changeability:** ONEAC features online, user replaceable batteries
- When front panel digital display and associated audible alarm signals need for battery replacement, a time allotment of about 3 months is given to perform task.
  - Through ONEAC's 24hr Tech Service group, new batteries are ordered and shipped, and old batteries are returned and properly recycled.
  - Online (no system downtime) change out and user replaceable (no technician needed), easy-to-install batteries (no tools required) are standard.

- Isolation/Grounding:** ONEAC's ON-Series UPS incorporates a full-time Isolation Transformer
- ONEAC qualifies per National Electrical Code (N.E.C.) as separately derived ground source and offers electrical load isolation.
  - Most OEMs directly recommend the use of dedicated/isolated grounding circuits and electrical load isolation. ONEAC serves this purpose, and no electrician!
  - Due to a Neutral-Ground bond on the secondary of Transformer, ONEAC re-establishes a clean ground reference point - critical in maintaining the integrity of an electronics based communications systems and eliminating ground loop interference.
  - TVSS (Transient Voltage Surge Suppressor) technology (such as APC, MinuteMan, Deltec, TrippLite) does not offer a clean ground reference and can actually exacerbate ground "noise" already present on the line by the nature of their design - by converting less harmful "normal mode" events to more harmful "common mode" events.

- Protection/Performance:** Only Voltage let-through is the "True" Differentiator.
- TVSS devices do not operate until their clamp voltage is exceeded – typically 330V and clearly marked on the product. Voltage disturbances lower than the clamp voltage pass through the suppressor unimpeded into protected equipment.
  - TVSS devices utilize MOVs which have slow reaction time, significant overshoot (large let-through), and deteriorate quickly leading to a limited lifecycle – without indication of failure. They do not protect from disruptive high frequency electrical "noise".
  - Actual performance: Due to reaction time and overshoot, a typical TVSS will let-through 400-600V in both Normal Mode (L-N) and Common Mode (N-G, L-G) when subjected to a simulated lightning strike on a branch circuit, IEEE C62.41 Cat.A.
  - ONEAC power-conditioned UPSs act as real time filters, always on and constantly filtering the load, providing clean power with instantaneous reaction time with no measurable deterioration after thousands and thousands of hits.
  - Actual performance: ONEAC guarantees no more than 10V let-through in Normal Mode (L-N) and <0.5V Common Mode (N-G, L-G), when subjected to a simulated lightning strike on a branch circuit, IEEE C62.41 Cat.A.
  - With the increased sensitivity of today's microelectronic systems, 10s of volts differential can be the difference between a healthy operating system and one that is plagued with problems and subject to a drastically decreased life expectancy.

- Warranty:** ONEAC ON-Series UPSs are warranted for 5 Years – longest in the industry.