

Smart-UPS Lithium-ion UPS FAQ

Is it safe to use Lithium Ion batteries in UPS?

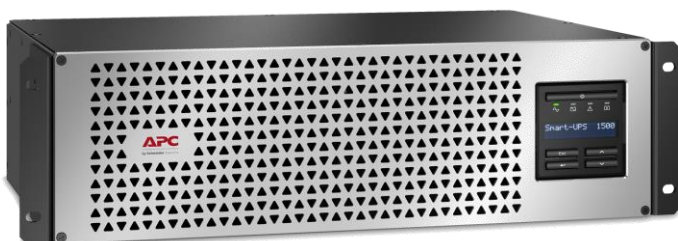
Yes, APC™ by Schneider Electric has been using Lithium Ion batteries in our UPS portfolios since 2013. The Lithium Ion battery packs being used with the UPS have the following certifications and protections to ensure the highest safety requirements.

- Cell certification UL1642/IEC62133
- Functional Safety UL1973 (Sec 5.7 & 5.8)
- Battery Monitoring System (BMS) to monitor and control the energy flow in the battery pack
- Overvoltage and overtemperature protection at cell level
- Overload and short circuit protection at pack level
- Dedicated fuse inside the battery pack
- Thermal runaway protection at pack level

What is the cycle life of lithium-ion batteries?

Cycle life refers to the number of times a battery can expect to be fully discharged and recharged within a specified temperature range before it needs to be replaced. Once a battery's capacity at full charge reaches 60-80%, then that battery becomes non-useable for the application and should be replaced.

For a traditional sealed lead-acid battery, the cycle life is up to 500 cycles. A typical Lithium-ion battery used for UPS applications can survive up to 5000 cycles. The number depends on several factors including the specific chemistry employed in the design.



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How long is the warranty?

The UPS warranty is 5 years for both the electronics and the internal batteries.

I heard Li-ion batteries are lighter and save space, what is the difference with the UPS with Li-ion batteries vs VRLA batteries?

Yes, Li-ion batteries are lighter and do save on overall space. The weight decrease from the Smart-UPS Sealed Lead Acid Battery 1500VA model to the Li-ion 1500VA model is 31%!



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Are Lithium-ion battery packs hot-swappable in Smart-UPS single phase UPS?

Schneider Electric has designed the Lithium-ion batteries to be hot swappable. So it is possible to replace the internal batteries while the UPS is operating in online mode.

How likely is it that I will need to replace my batteries under normal circumstances?

The lifecycle of the UPS is approximately 10 years. At this time the batteries will be at the end of their life as well as the natural degradation of the electronic components will be at the end of their optimized life expectancy. It is recommended that the UPS be replaced with a new model. For uncommon use cases, a replacement battery will be made available for warranty and service needs in 2019.

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Can I replace the VRLA batteries with lithium-ion batteries on my existing UPS?

No, the lithium-ion batteries are designed to work only with the UPS specially designed for lithium-ion batteries. The UPS has a unique internal battery connector to avoid any misconfigurations in the field.

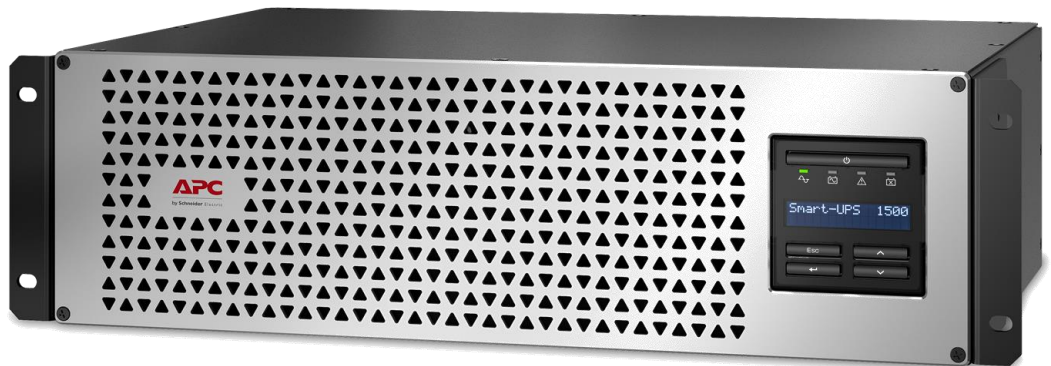
Can I use my existing APC Network Management Card (NMC) with this UPS?

Yes, part# AP9630, AP9631, and AP9635 are all compatible with this UPS.

How do I know if the Li-ion battery UPS is right for me?

- Are you tired of battery replacement needs?
- Have you encountered unexpected battery failures?
- Are you ready to lower your Total Cost of Ownership?
- Have you noticed significant runtime degradation over time or due to high temperatures?

If your answer is yes to any of these questions, then the Smart-UPS Li-ion UPS is the solution you should consider.



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