Portable power that supports productivity — and peace of mind

Get independent evaluation, testing and certification services that help you demonstrate safety of power banks and portable power packs.

Consumers are constantly on the go and need electrical power to keep a growing collection of portable devices charged up and ready for use. Manufacturers of power banks and portable power packs are enhancing their products to offer more rapid charging and more capacity.

What's the difference between a power bank and a portable power pack?
Portable power products are typically lithium-ion battery operated and provide output power with USB type connector(s) for consumer electronics (e.g., power banks) as well as in the form of 120 V outlet(s) or automotive jump starters (e.g., portable power packs).

Risks from portable power products

Since lithium-ion batteries are employed in portable power products, the United Nations classifies them as dangerous goods, because they can be prone to thermal runaway events, which cause explosions and fires.

Consumers and retailers are increasingly becoming aware of these potential hazards and are eager to choose portable power products that are safer, while manufacturers want to avoid issues that can impact their brand reputation and consumer trust in their brand.

Demonstrate compliance to bolster customer confidence

Retailers and manufacturers can reassure concerned consumers by demonstrating compliance with safety requirements through evaluation, testing and certification services provided by an independent and impartial third party — such as UL Solutions.

For more than 40 years, UL Solutions has offered evaluation, testing and certification services for rapidly evolving battery technologies. These services help manufacturers unlock new markets, protect brand reputation and maintain a competitive edge.

Always on the vanguard of safety, UL Solutions invests in science-based testing methodologies at our laboratories around the world.

Between 2012 and 2017, the United States Consumer Product Safety Risk Management System documented more than 25,000 incidents caused by lithium-ion battery-operated products.

Consumer Product Safety Commission, March 2020

UL Solutions

Power banks vs. portable power packs safety standards — what's the difference?

We can help you evaluate, test and certify your portable power products to these relevant end-product safety criteria:

UL 2056, the Outline of Investigation for Safety of Lithium-Ion Power Banks

In scope:
- Portable power banks that use lithium-ion batteries only
- Input and output voltages </= 20Vdc, typically USB in and USB out
- Integrated power banks in carrying cases or carry-on luggage

Out of scope:
- Power banks with an automotive jump-start function
- Power banks provided as part of an appliance
- Power banks that are used for vehicle propulsion

To learn more about UL 2056

UL 2743, the Standard for Portable Power Packs

In scope:
- Provided with one or more inputs and outputs and usually at least one 120 V AC outlet and may have an automotive jump-start capability for emergency starting power of land vehicle batteries
- May have additional functions (air compressor, flashlight, warning lights) powered by an internal battery
- When integral to the portable power pack, other options, such as charging internal batteries, lights, voltmeters, inverters, etc., are covered under this standard.

Out of scope:
- Power banks, typically USB in and USB out
- EV charging wiring or cables
- Power packs with capacity exceeding these aggregate capacity limits:
  - Lead-acid, all types – 70 kWh/252 MJ
  - Lithium-ion, all types – 20 kWh/72 MJ
  - Electrochemical capacitors – 3 kWh/10.8 MJ

To learn more about UL 2743

Let's get started

Our team at UL Solutions wants to hear more about your battery testing and certification needs.

Contact us today or visit ul.com/batt or ul.com/services/portable-power-pack-testing to learn more.

UL Solutions

Safety. Science. Transformation.™

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