

Discover[®] ADVANCED ENERGY

Lithium-Ion Battery Systems



LEAD
is
DEAD

**DISCOVER AES
SIGNIFICANTLY
OUTLASTS LEAD
ACID BATTERIES**

IT'S TIME TO CHANGE.

- Reduce energy storage costs
- Reduce diesel consumption
- Double runtime and energy output
- Recharge up to 5x faster
- Certified to stringent UL1973 and UN38.3 standards

JUCE

Discover AES have JUCE, doubling runtime and energy output over lead acid battery banks of the same capacity.



“This 400Ah L16 has 200Ah in usable capacity”. The math used by solar installers is so well known that it’s just accepted as the truth. Because deeply discharging lead acid batteries decreases life expectancy, a maximum of 50% Depth of Discharge (DOD) is typically and responsibly factored into sizing every lead acid battery bank.

Discover’s 100% DOD battery ratings represent the actual usable energy output available from a fully charged battery. This means Discover AES will provide at least 2x the usable energy in a single cycle versus an equivalent high quality lead acid string without any risk of damaging the battery.

AEON

Discover AES will significantly outlast lead acid batteries and dramatically reduce your customer's energy storage costs over the life of their system.



Discover AES with AEON cycle life technology can be continuously operated in a partial State of Charge (SOC), or discharged and charged to 100% of its rated capacity without consequence. Discover AES will provide >90% of original energy storage capacity for a minimum of 10x that of a high quality lead acid bank.

RAPI-CHARGE

Discover's RAPI-CHARGE charge source optimization allows Discover AES to fully recharge up to 5x faster than new lead acid batteries or up to 10x faster than aged lead acid batteries.



The Battery Management System (BMS) and charge control system of Discover AES optimize charge current and voltage to safely recharge the battery at the highest and most efficient rate regardless of its state of charge.

Even the highest quality lead acid batteries require lengthy absorption and equalization stages to achieve a fully charged state. Discover AES batteries accept a charge at maximum inputs throughout the charging process and don't require "absorption" or "equalization" over charge stages.

MISER

With round trip efficiency measured at >95%, MISER technology saves homeowners at least 15% of their stored energy capacity, each and every time they cycle their system when compared to high quality, lead acid battery options.



Round Trip Efficiency (RTE) is the measure of the energy wasted each and every charge/discharge cycle. New high quality lead acid batteries have at best an 80% RTE, which can decline rapidly as the batteries age.

SENTRY

Discover AES with SENTRY are cleaner and safer than lead acid batteries. Stable and high-performing LiFePO₄ cells managed by our proprietary, 3rd generation BMS design have been tested and certified to stringent UL1973 and UN38.3 standards for safety and transport.



LiFePO₄ works for stationary / solar applications because it:

- Is very thermally stable with no risk of thermal runaway
- Offers the longest cycle life
- Can be recharged at 1C rate
- Can handle heavy loading and rapid discharge rates

Tested and certified:

UL1973 - the regulatory standard applicable for energy storage in solar home applications

UN38.3 - required to legally and safely transport lithium batteries

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We are a company of passionate people that understand that our customers come first and strive every day to ensure we exceed the high standards that we have set.”

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Discover[®]

Innovative Battery Solutions