

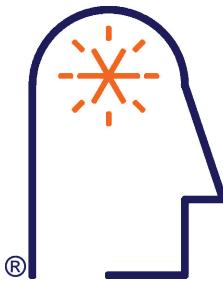


CONTINUOUS CHARGE BALANCING

SmartSpark Energy Systems is an energy middleware provider and developer. Our power electronics technologies and products support electricity conversion and control between almost any energy source and load.

In addition to BattEQ, our product line also includes ForeverPower™: A power supply system designed to provide highly reliable and available off-grid power over extended time periods.

SmartSpark also engages in contract research and development in advanced power electronics.



SMARTSPARK
ENERGY SYSTEMS

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BattEQ™ is a non-dissipative circuit that precisely balances charge in strings of rechargeable batteries while avoiding traditional wasteful overcharge equalization. Charge equalization is an essential element of effective battery management. Over time, the cells in a battery string charge to different voltages. It kills them. Literally. BattEQ uses a patented energy shuttle process to provide a precise, modular, low-cost solution that applies to all major battery chemistries. Depending on the application, BattEQ can increase the life by as much as 5 times.

BattEQ's ideal applications include:

- Power wheelchairs
- Mobility scooters
- Sport scooters and motorcycles
- Golf carts
- Pallet jacks
- Floor scrubbers
- Solar power systems
- UPS systems
- Electric lawnmowers

BattEQ is:

Non-Dissipative – doesn't drain the batteries
Designed for Flexibility – many applications use one unit, and BattEQ can be overlapped when needed for larger applications
Easily Installed – minimized wiring for efficient and easy connections
Continuous – operates during charge, discharge, and float stages
Efficient – avoids traditional wasteful overcharge equalization
Self-Monitoring – shuts off (with inactivity) and reactivates automatically
Powerful – shuttles up to 16A; balances the string during demanding periods
Built to Last – covered by a 2-year warranty and backed by a dedicated team

Current BattEQ Models Include:

- BEQ2x12Vx50: wheelchairs, mobility equipment
- BEQ4x6Vx250: golf carts, pallet jacks, scrubbers
- BEQ4x6Vx500: UPS, solar applications
- BEQ4x12Vx50: electric scooters
- BEQ4x12Vx250: golf carts

