

Technology Title: Battery Charger and Power Reduction System and Method (Battery Charger)

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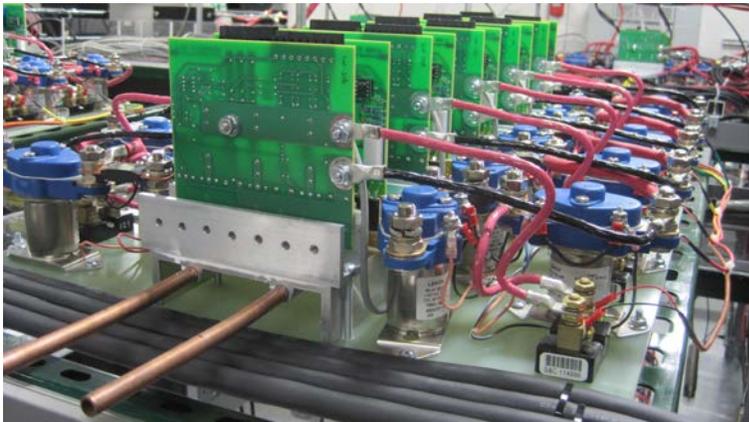
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ABSTRACT

Abstract #: power, energy, test, lithium-ion, battery, charger

The Naval Surface Warfare Center (NSWC)—Crane Division has invented a Battery Charger and Power Reduction System and Method (Battery Charger) covered by United States Patent 7,573,235 B2. The Battery Charger is a shunt-type, lithium-ion battery-charging device that is designed to reduce the likelihood of overcharging and the possible deleterious effects (and cooling requirements) that are associated with the generation of heat during the charging process. The limitations of three types of battery chargers, existing as prior art, prompted the invention of this shunt-type charger that is claimed to control the amount of power being used by the battery-charger by monitoring the batteries' level of charge during charging, and by correspondingly reducing the magnitude of the charging current in response to such a monitored level . The Battery Charger may then offer the following prospective advantages: extended battery life, decreased likelihood of overcharging, increased efficiency of operation, decreased generation of heat, eliminated need for supplemental cooling components, flexibility to charge different types of lithium-ion batteries, as well as ones with differing states of charge, and precision of charging.

THUMBNAIL

The Battery Charger is a shunt-type, lithium-ion battery-charging device that is designed to reduce the likelihood of overcharging and the possible deleterious effects (and cooling requirements) that are associated with the generation of heat during the charging process.