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(54) Title: MODULAR CASCADED ENERGY SYSTEMS WITH A COOLING APPARATUS AND WITH REPLACEABLE ENERGY SOURCE CAPABILITY

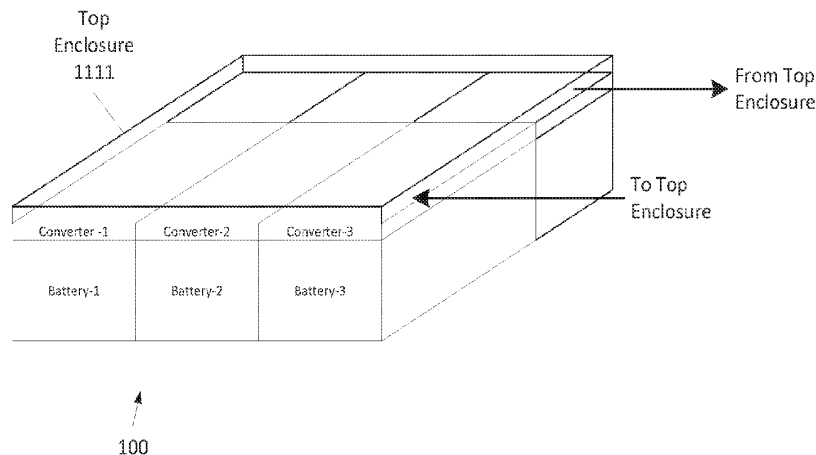


FIG. 11E

(57) Abstract: Example embodiments of systems, devices, and methods are provided herein for cooling a modular energy system. The embodiments can utilize an enclosure surrounding the modular energy system to route the coolant in a manner that passes in proximity with components of modules of the modular energy system. The embodiments can provide for a sequence of pumping coolant such that the coolant cools components of the electric vehicle having the lowest desired operating temperature first, followed by the components having relatively higher desired operating temperatures. Example embodiments of systems, devices, and methods are also provided herein for a modular energy system with removable and replaceable energy sources. The system can be positioned within an electric vehicle in a manner that permits rapid removal of energy sources having a relatively low state of charge and replacement of those energy sources with different energy sources having a relatively higher state of charge.

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