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(57) Abstract :

Title: EV BATTERY PACK WITH VOLTAGE BALANCING FEATURES ABSTRACT A first topology 400 of the reconfigurable topology with voltage balancing feature unit 106 comprising: four bidirectional semiconductor switches 'S1', 'S2', 'S3' and 'S4' of and two diodes 'D1' and 'D2'; and a battery pack-1 unit 404 and battery pack-2 unit 402 which are internally configured with series and parallel combinations of battery cells, wherein this first topology 400 is more compact due to its semiconductor switches and cost effective. A second topology 700 of the reconfigurable topology with voltage balancing feature unit 106 comprising: three contractors 'C1', 'C2' and 'C3', two semiconductor switches 'S1' and 'S2' and two diodes 'D1' and 'D2'; and a battery pack-1 unit 704 and battery pack-2 unit 702 which are internally configured with series and parallel combinations of battery cells, wherein this second topology 700 provide to select and connect either battery packs to the output terminal (i.e., at the motor drive terminals) that ensures modularity and improved reliability. . FIG. 4A and FIG. 7A

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