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## (57) Abstract :

Title: An Integrated Charger-Cum-Motor-Drive Power Converter System with Dual Energy Storage Sources ABSTRACT An integrated charger-cum-motor-drive power converter with dual energy storage system 100 comprising a propulsion motor 110, a reconfigurable power converter 120, at least two energy storage sources 130A &130B, a universal external interface 140, a DC fast charger connector 160 and a filter and coupling unit 150 connects the propulsion motor 110, the reconfigurable power converter 120 and the universal external interface 140. The at least two energy storage sources 130A &130B voltage balances by exchanging voltage from one energy storage source to the other energy storage source. The at least two energy storage sources 130A & 130B connect at least one of series and/or parallel during traction and charging. The at least two energy storage sources 130A & 130B connect either one of the storage source during traction and charging. The at least two energy storage sources 130A & 130B can be charged independently with different or same current/power ratings. < FIG.1B>

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