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Title:

Low Harmonics Plug-in Home Charging Electric Vehicle Battery Charger Utilizing Multi-level Rectifier, Zero Crossing, and Buck Chopper: BMS Battery Charging Control Algorithm

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Abstract:

This paper focuses on a series motor direct current (DC) drive electric car (EC) battery charger control algorithm for controlling and synchronizing Low Harmonics Plug-in Home Charging Electric Vehicle Battery Charger that consists of zero crossing, multi-level rectifier (MLR), and buck chopper (BC). The MATLAB/Simulink software was used to test the control algorithm and proposed battery charger. The simulation results showed that the proposed battery charger control algorithm successfully performed the expected operation.