

ACTIVE POWER FILTER FOR SINGLE-PHASE QUASI-Z-SOURCE INTEGRATED ON-BOARD CHARGER

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Single-phase quasi-Z-source converters have ripple voltages on the dc bus. To filter the voltage ripple, bulky capacitor bank is needed. This paper proposed an active power filter for single-phase quasi-Z-source converter. This topology is suitable to integrated electric vehicle on-board charger, which can use EV's inverter hardware as its own rectifier hardware. Thus, this proposed topology can save much space and weight. Simulation and experimental results verified the proposed system.

