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A Multi-Functional PV Inverter with Low Voltage Ride-Through Capability and Constant Power Output

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Abstract: *The integration of photovoltaic (PV) systems into the power grid has gained significant attention due to their renewable and sustainable nature. However, the intermittent and unpredictable nature of solar power poses challenges in maintaining stable grid operation. This paper presents a novel multi-functional PV inverter that addresses two critical aspects of grid-connected PV systems: low voltage ride-through (LVRT) capability and constant power output. By incorporating advanced control algorithms and innovative hardware design, the proposed PV inverter ensures uninterrupted power generation even during grid disturbances, while delivering a constant and reliable power output.*

Keywords: Photovoltaic (PV) systems, Low voltage ride-through (LVRT) ,Constant power output, Grid integration, etc.

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