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# Modified High Static Gain Single Ended Primary Inductor Converter (SEPIC) For PV Applications

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**Abstract :** A novel non-isolated *DC-DC* converter is designed for photovoltaic system is endorsed in this paper. This converter topology is considered by an combination of the classical Boost and SEPIC DC-DC converter. The proposed topology needs only one power semiconductor switch, decreases voltage stress in diodes and power semiconductor switch but also provided that a continuous input current. In addition to that, the topology increasing the voltage static gain while equated with the conventional SEPIC converter. The new converter is integrated with a maximum power point tracking algorithm. Herein, the design considerations of this power converter are presented, and the characteristics of the proposed topology are confirmed by simulations and experiment results.

**Keywords :** Boost converter; SEPIC converter; photovoltaic; DC-DC conversion.

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