



AK Tech Training and Placements

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An Improved SEPIC- Based Single Switch Buck-Boost PFC Converter Fed Brushless DC Motor Drive

an improved SEPIC-based single switch Buck-Boost PFC converter fed brushless DC motor drive is proposed. This converter works by one switch and voltage stress across the switch is also low. In this converter, a non-inverting output voltage is obtained. It operates at wide output voltage range by changing the duty cycle of the power switch. As only one power switch is used, the presented converter can be easily controlled. It has very low source current total harmonic distortion and achieves unity power factor which results in high efficiency operation of BLDC motor. The voltage source inverter feeding the BLDC motor operates at line frequency so that the switching losses are very low.

Domain: Power Electronics / DC - DC Converters

Technology: Electrical