6. Conclusion

This dissertation work shows the design and implementation of interleaved boost converter. Comparison between conventional boost converters with the proposed IBC along with their application in running a BLDC motor with the motor speed variation is shown by using MATLAB/SIMULINK. From the obtained results we can conclude that, the IBC has higher boosting capacity, reduced inductor peak current and increased efficiency compared to that of conventional boost converters. The graph of efficiency versus output power is plotted and this graph clearly shows that, the efficiency of the proposed converter increases with increase in output power. And also it is clear that the selection of converter also plays an important role in efficient utilization of the renewable source output. The results also shows us that, the output of IBC is higher with less ripple content than that of conventional boost converter which helps in increasing the speed and efficiency of BLDC motor.

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