Comparison between Two Drive Circuits for a Full-Bridge Inverter with Phase-Displacement Control

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Abstract

This paper presents a comparison between two drive circuits of a single phase full-bridge IGBT inverter with full wave and phase-shift control. The first driver uses the IR2110 integrated circuit for driving each half-bridge and the second uses a gate drive circuit with galvanic isolation for each IGBT of the bridge. The experimental results and the advantages of using one or the other method are also presented for a resistive-inductive load.