

## **Three-Level Converters Back-To-Back DC Bus Control for Torque Ripple Reduction of Induction Motor**

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**Abstract :** This paper proposes a regulation method of back-to-back connected three-level converters in order to reduce the torque ripple in induction motor. First part is dedicated to the presentation of the feedback control of three-level PWM rectifier. In the second part, three-level NPC voltage source inverter balancing DC bus algorithm is presented. A theoretical analysis with a complete simulation of the system is presented to prove the excellent performance of the proposed technique.

**Keywords :** back-to-back connection, feedback control, neutral-point balance, three-level converter, torque ripple

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