**عنوان مقاله:**

Torque Ripple Reduction in Direct Torque Control of Induction Machines by Use of all Voltage Vectors of Matrix Converters

**محل انتشار:**

اولین کنفرانس بین المللی الکترونیک قدرت و سیستم های درایو (سال: 1388)

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**خلاصه مقاله:**

This paper proposes the use of all voltage vectors of matrix converters to reduce the electromagnetic torque ripple which is one of the most important drawbacks of direct torque control for induction motors using matrix converters. The standard look up table for direct torque control by matrix converters is improved in order to include the small, medium and large voltage vectors of matrix converters. With the new look-up table and new hysteresis comparator with seven levels of output the system will differentiate between small, medium and large torque errors and consequently reduce the electromagnetic torque ripple and output current THD. The simulation results demonstrate the effectiveness of this novel control strategy.

**کلمات کلیدی:**

Direct Torque Control (DTC), Induction Motor, Matrix Converter (MC), Torque Ripple

**لینک ثابت مقاله در پایگاه سیویلیکا:**

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