

DSPIC30F6010A Control for 12/8 Switched Reluctance Motor

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Abstract : This paper briefly mentions the micro controller unit, and then goes into details about the exact regulations for SRM. Firstly, it proposes the main driving state control for motor and the importance of the motor position sensor. For different speed, the controller will choice various styles such as voltage chopper control, angle position control and current chopper control for which owns its advantages and disadvantages. Combining the strengths of the three discrepant methods, the main control chip will intelligently select the best performing control depending on the load and speed demand. Then the exact flow diagram is showed in paper. At last, an experimental platform is established to verify the correctness of the proposed theory.

Keywords : switched reluctance motor, dspic microcontroller, current chopper

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