



ABSTRACT

A METHOD & APPARATUS FOR DETECTING BACK ELECTROMOTIVE FORCE

A method and apparatus for detecting the back electromotive force in a three-phase brushless DC motor driven in Half-Bridge configuration and operated continuously in a pulse width modulated mode. A difference signal indicative of the difference between the centre tap voltage and the voltage of at least one of the phases is obtained during a tri-stated condition of the phase and used to produce a method of back electromotive force. The difference signal is obtained during an on cycle of the pulse width modulation and a reconstructed signal indicative of the back electromagnetic force can be generated from sequential difference signals using a sample and hold technique in which a slope compensation is applied to the hold values.

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