

عنوان مقاله:

Fault Detection In Induction Machine By Analysis Of Stator Current In Transient Condition By Continuous Wavelet Transform

محل انتشار:

کنگره بین المللی علوم مهندسی و توسعه شهری پایدار (سال: 1397)

تعداد صفحات اصل مقاله: 12

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خلاصه مقاله:

Using of wavelet transform for monitoring and diagnosis of fault in induction motors is increasing because analyzing of the stator is possible in transient conditions by these methods. This method can be used for local analysis in the domain time - frequency or dimension time scale. In this paper, the detection of hanging load fault in a stator current signal is presented using the Morse wavelet in the structure of the continuous wavelet transform. In the proposed algorithm, firstly, the stator current signal is measured by the sensors, then by analogue-to-digital converter of the relevant signal is sampled, using the MATLAB software by wavelet transform, The sampling signal is processed. Experimental and practical results indicate that the method selects the fault with high accuracy and reliability without the need of complex calculation in a short time, which makes it possible to use it in operation. In this paper, the ability to select a wavelet compared to the Bump wavelet is investigated and ultimately the accuracy and ability of the selected wavelet are discussed.

کلمات کلیدی:

Fault detection, Continuous wavelet transform, Induction motor, Wavelet transform, Transient state, Hanging load fault, Signal processing

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