

Turn To Turn Short Circuit Classification In Induction Motor Stator Windings Caused By Isolation Failure Using Neural Network (NN) Method

Klasifikasi Hubung Singkat Turn To Turn Pada Belitan Stator Motor Induksi Yang Disebabkan Kegagalan Isolasi Menggunakan Metode Neural Network (NN)

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Almost all industries use induction motors as production aids, this is due to several reasons, namely, the resulting rotational speed is constant, the induction motor does not have a brush so that the friction loss can be reduced, and easy maintenance. In this study is to detect damage to the stator winding caused by lamination of the windings so that a short circuit occurs in one phase, which is also called a turn fault. The Fast Fourier Transform (FFT) method is used to detect currents with a load of 0%, and 100% which will later be detected for classification on the Neural Network (NN). Categorizing the level of loading and the level of damage experienced by induction motors, namely turn to turn u1, turn to turn u1 and v1, and turn to turn u1, v1 and w1. The reading of the test results conducted on the Neural Network has good prediction results because the Mean Squared Error (MSE) produced does not exceed the specified 5% erracy level.

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