

Numerical Modeling of Magnetic Noise for Three Phase Asynchronous Motors Through the Software Flux 2D

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Abstract – The purpose of this paper is to study the influence of winding type – single layer or double layer - on the nature of electromagnetic noise for three phase induction motors of type M3AA 71 B2/4 at speed 1500 rpm –power 0,05 kW respectively 3000 rpm –power 0,26 kW having Dahlander windings (type) with the number of poles in the ratio 2/4, double star/star winding connection, rated voltage 400 V, frequency 50 Hz. For both types of motor windings is calculated the magnetic pressure which appears on the surface of the rotor. For numerical modeling of electromagnetic noise nature have used the finite element software –Cedrat FLUX 2D and the results were presented in a comparison for the two speeds: 1500 rpm (single and double layer winding) – 3000 rpm (single and double layer winding).