AN INFLUENCE OF SUPPLY VOLTAGE FREQUENCY ON DYNAMIC PERFORMANCE OF A SINGLE-PHASE CAPACITOR INDUCTION MOTOR

The paper presents a modeling mathematical tool for prediction of characteristics and simulating results of dynamic operation of the single-phase capacitor induction motor for different values of the capacitor capacitance and for two widely used values of supply voltage frequency at no-load and rated load conditions. Developed mathematical model of the capacitor induction motor was implemented for calculation using Matlab/Simulink software. The simulation shown the usefulness of the model for the process of designing single-phase induction motors.