A. comparative Study on the starting methods of three phase wound rotor induction motors Part I

Mohamad Abd-Alraheim Badr

Dean

Abstract

This paper presents a comparative study on the starting performance of three phase wound-rotor induction motors under different methods of starting. These methods are online direct starting, variable rotor resistance starting and double feed starting. In the double feed starting, the rotor winding is connected in parallel with the stator winding across the supply for a predetermined short period. By this connection, the motor produces an extremely high starting torque. For carrying out the investigations sought, a rigorous state space mathematical model has been developed and simulated. The effect of torsional dynamics has been taken into considerations.