

Abstract

Yasser Gaber A. Dessouky

Steady state behavior of series connected synchronous motor

Series Connected Synchronous Motor (SCSM) is a slip-ring induction motor with stator and rotor windings connected in series. This motor runs synchronously at double the rated speed when runs as a normal induction motor. This paper presents theoretical and experimental investigation for steady state performance based on the d-q model as derived for a synchronously rotating frame. The model is extended to include saturation.