

Abstract

The rotor flux optimization is crucial parameter in the implementation of the field oriented control. In this paper, we considered the problem of finding optimum flux reference that minimizes the total energy control for induction machine drive under practical constraints: voltage and current. The practical usefulness of this method is evaluated and confirmed through experiments using (1.5kW/380V) induction machine. Simulations and experimental investigation tests are provided to evaluate the consistency and performance of the proposed control model scheme