

感應馬達之最佳效率控制

Because variable speed induction motor drives usually operating at partial load, therefore if the magnetizing flux of the motor can be varied to reduce motor loss, then the motor can operate with minimum loss regardless of the load. This paper proposed a simple but effective method to control a vector controlled induction motor drive always at its optimal efficiency point. In this scheme, the power factor of the motor is the main control variable, the magnetizing current is manipulated such that the motor is operating at the minimum loss point. In addition to the theoretical analysis, preliminary experimental results are also presented in this paper.