

SWITCHED RELUCTANCE MOTOR DRIVES FOR RAIL TRACTION - A RELATIVE ASSESSMENT

This report extends previous work to include a more detailed assessment of the technical and economic benefits of switched reluctance motor systems applied to railway propulsion. Its content is similar to a paper of the same name submitted to the IEE.

Several forms of power electronic circuit have been considered for providing the pulsed DC supply required. Comparison is made with inverter-fed induction motor drives using conventional McMurray three-phase pulse width modulation thyristor inverters. Further comparisons are drawn against chopper fed DC motor systems which are entering service on various railways.