

Simulation Based Performance Comparison of Different Control Methods of ZSI Feeding Industrial Drives

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Abstract : Industrial drives are source of serious power quality problems. In this, two typical industrial drives have been dealt with, namely, FOC induction motor drives and DTC induction motor drive. The Z-source inverter is an emerging topology of power electronic converters which is capable of buck boost characteristics. The performances of different control methods based Z-source inverters feeding these industrial drives have been investigated, in this work. The test systems have been modeled and simulated in MATLAB/SIMULINK. The results obtained after carrying out these simulations have been used to draw the conclusions.

Keywords : Z-source inverter, total harmonic distortion, direct torque control, field orientation control

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