Abstract

This paper presents a vector control direct (FOC) of double fed induction generator intended to control the generated stator powers. This device is intended to be implemented in a variable-speed wind-energy conversion system connected to the grid. In order to control the active and reactive power exchanged between the machine stator and the grid, the rotor is fed by a bi-directional converter. The DFIG is controlled by standard relay controllers. Details of the control strategy and system simulation were performed using Simulink and the results are presented in this here to show the effectiveness of the proposed control strategy.
Index Terms

Computer Science

Power Systems

Keywords

Vector control indirect (IFOC)  doubly fed induction generator (DFIG)
variable-speed wind-energy
standard relay