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Voltage source inverter commutation

Overview

What is load commutated inverter fed synchronous motor drive?

Load Commutated Inverter Fed Synchronous Motor Drive is shown in Fig. 10.22. The inverter is a current source inverter employing thyristors T 1 – T 6. The commutation of inverter thyristor is done by the voltages induced in armature of the synchronous motor. A chopper is used to obtain a variable dc voltage V ds from the fixed source voltage V.

What is commutation of inverter thyristor?

The commutation of inverter thyristor is done by the voltages induced in armature of the synchronous motor. A chopper is used to obtain a variable dc voltage V ds from the fixed source voltage V. The V ds is varied with V dl so that a required current is supplied to the dc link, and therefore, to the motor.

What is the difference between external commutation and self-commutated inverters?

The external commutation inverters, acquire sources externally from motors or power supply and the self-commutated inverters control the circuit with the help of capacitor function. Self-commutated inverters are classified as current source inverters and voltage source inverters. This article gives an overview of a voltage source inverter.

What is the patent number for inverter commutation?

"Inverter commutation techniques for five-phase synchronous motor drives." U.S. Patent 10,676,128, issued June 9, 2020. Zhe Zhang, Prerit Pramod. "Space vector pulse width modulation for multi-phase machines." U.S. Patent 11,190,126, issued November 30, 2021.

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