

Design of speed control circuit for three-phase wound rotor induction motor for rotary kiln system

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Abstract: In the context of industry increasingly demanding high performance and energy efficiency, designing a speed control circuit for a three-phase wound-rotor induction motor becomes necessary to optimize the rotary kiln system. The objective of this project is to develop an advanced control solution to enhance operational efficiency and reduce energy consumption for the induction motor during the kiln rotation process. The research methodology involves applying power electronics theory combined with experimentation to determine suitable circuit parameters. The expected outcome is an effective control system that meets manufacturer requirements and strengthens competitiveness in the rotary kiln industry.

Keywords: asynchronous motor, speed control circuit, rotary kiln system