

Electrical equipment and hardware construction for the control and monitoring system of three-phase asynchronous motor parameters using a variable frequency drive connected to PLC S7-1200.

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Abstract: In this project, the objective is to equip electrical systems and build hardware for controlling and monitoring parameters of a three-phase asynchronous motor using a variable frequency drive connected to a PLC S7-1200. The context for selecting this topic is based on the practical need to optimize the operational performance of electric motors. The research methodology includes theoretical analysis of the variable frequency drive and PLC systems, followed by application implementation through specific experimental tests. The expected outcome is to develop a comprehensive solution for safe and efficient control and monitoring, contributing to the advancement of automation technology in the industrial electrical sector.

Keywords: Three-phase motor, inverter, PLC S7-1200, monitoring system, automation