

## **Annotation**

This project was carried out a serious analysis of the management and control methods of the electric pumping system and hot water systems and was used to select the optimal scheme of BP in terms of economy, simplicity and reliability. Also was calculated the power of the driving motor of the pump according to the actual load of the hot water system. In that occasion was chosen an induction motor 4A112M2U3 and the corresponding frequency converter Ren-2-02- NF4 up to 30 kW, with GSP MIKRODAT program controller. Also was developed a mathematical model and its corresponding virtual model of the proposed scheme of the electric drive-AD, which was researched in a visual program called Simulink of the mathematical package Matlab 7.0.