

## **Annotation**

The diploma project deals with the development of the engine valve on the basis of the frequency converter with a direct connection, and pulse-width modulation, as well as the possibility of using such a drive in a powerful pumping units. Substantiates the method of generating an output voltage, defines the basic parameters of the engine valve. On the basis of the equivalent circuit is determined by the power factor, and the loss of engine efficiency. The construction of a brushless motor control system based on microprocessor technology. We give experimental determination of the parameters of the engine, and system modeling. labor protection and safety are also considered. The economic effect of the introduction of the HP system with PWM instead of the method of adjusting the throttle has been confirmed the technical and economic calculation.