

SUMMARY

The diploma project includes 60 pages, 13 figures, 6 tables, 3 sheets A1, 20 sources used.

The object of the study is a centrifugal fan that pumps biofuels into the furnace.

The purpose of the work is the research and development of the control system for the rotational speed of the centrifugal fan.

In this diploma project the calculation of the power of the electric drive of the supercharger is given. A choice is made of the type of electric motor, calculation of the power part of the frequency converter and its choice. An open-loop control system is selected. PLC150 is a programmed PLC150 logical controller to implement the control. Programming language - LD. To measure the temperature, a THA thermocouple is used, the signal from which comes to the PLC-150. The supercharger is located on one shaft with an electric motor. The technological process allows the use of the supercharger at different speeds. The control system investigated in the DP allows it to be used in technological processes that require periodic changes in temperature, pressure, etc., and their content at a given level. The control system can be used in the production of cement, lime, petroleum and food industries. The chosen control system, by reducing the frequency, reduces the electricity consumption of the engine used, indicating its economic efficiency.

ELECTRIC POWER, AUTOMATION, VENTRAL FAN,
ASYNCHRONAL ENGINE, FREQUENCY CONVERTER, INFINITE,
PROGRAMMABLE LOGICAL CONTROLLER, THERMODATCHIC.

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| Dif. | Letter | № Doc. | Signature | Date | | | | |
| Devel. | V. Korniyenko | | | | Automation of the electric drive for the feeding of bioline Summery | Lit. | Letter | Letters |
| Checked | N. Krasnoshapka | | | | | | 7 | 65 |
| N. Contr. | B. Priymak | | | | | KPI named after Igor Sikorsky Department AEMS-EP | | |
| Approved | S. Peresada | | | | | Gr. EP - 32 | | |