

## **Annotation**

This diploma project dedicated to projecting of turbogenerator with using of polyimide isolation. Importance of considerable theme explained by cost decreasing of turbogenerator production by replacement of traditional thermoreactive isolation for polyimide in stators slots and voltage increasing in modern turbogenerators up to 10.5 kV and power up to 60 kW.

In this diploma project considered optimization and reduction of slot dimension and stators diameter to turbogenerators nominal voltage 10.5 kV and 100 kW.

Also considered possibility of turbogenerator with increased power in previous geometric dimensions, what became possible by using polyimid isolation.

In the part of life safety considered artificial lightning GPS and turbogenerators grounding.

In economical part considered loses reduction during turbogenerators modernization.