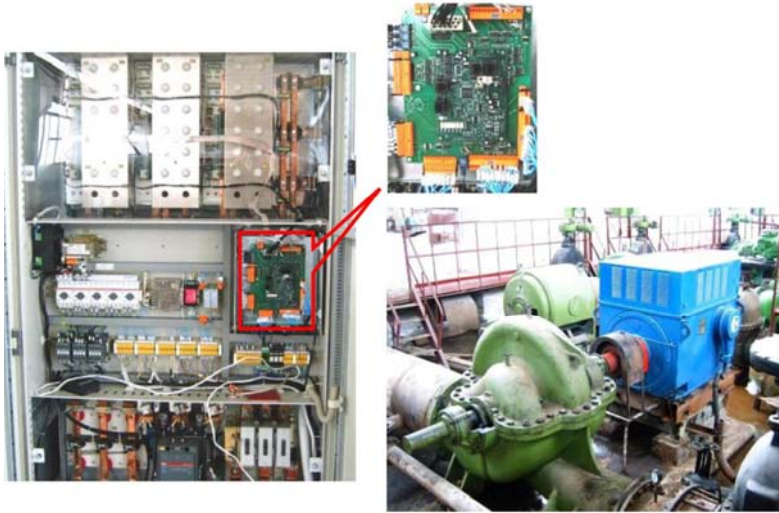


## 2.04. ELECTROMECHANICAL SYSTEMS BASED ON DOUBLY-FED ELECTRIC MACHINE

Electromechanical systems based on doubly-fed electric machine are intended for the use in wind powered generators and the systems of controlled electric drive.

*Technical specifications:* power – 100 ... 1000 kW.



*Adjustable electric drive of the pump with 750 kW power based on the doubly-fed electric machine*

### *Advantages.*

In comparison with a traditional adjustable electric drive (where an asynchronous motor with short-circuited rotor is used), an electric drive based on the doubly-fed electric machine is characterized by:

- lower cost of frequency converter;
- ability to control reactive power consumed the electromechanical system from the network;
- higher efficiency of the whole system;
- harmonicity of stator and rotor currents;
- ability to generate electricity with specified parameters at a variable speed of the main shaft.