Resume 2.

After watching 3 videos I can say the following.

In the first one the man explained how a motor and a generator work and what their similarities and differences are. As I understand these devices have the identical structure, but their key difference is in conversion of energy, that is the motor transforms electrical energy into mechanical energy, and the generator does it back way.

The second video was about synchronous motor that works at a constant speed achieved by interaction between a constant and rotating magnetic field. Rotor of synchronous motor produces constant magnetic field and stator produces revolving magnetic field. The field coil of stator is excited by a three-phase AC supply and rotor is excited by DC power supply. There are several reasons why the motor can out of synchronism. Among them motor overload, low supply voltage or low excitation voltage.

And the last video was about the most common type of electric motor in the world – induction motor. In fact 90% of industrial motors are induction ones. Nikola Tesla invented it and got commercial success. It has very simple construction and consists of the following parts: terminal box, fan, flange, end shield, frames, stator core, stator windings, laminated cylindrical core and so on. This motor is advantageous than other ones in many ways.