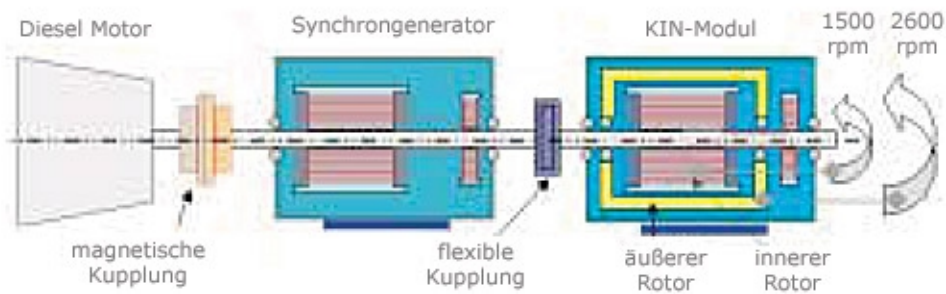


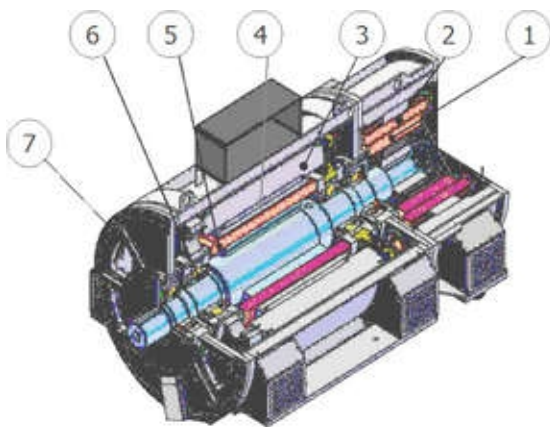
Simplified functional description :

The kinetic energy storage module (KIN) consists of 2 rotating parts: an inner and an outer rotor. The outer rotor has a short circuit cage and rotates at a speed of 2600 rpm and runs freely on the shaft of the inner rotor.

The inner rotor has a DC winding, runs at a synchronous speed of 1500 rpm and is coupled over a loose clutch with the high power Hitzinger synchronous alternator. At grid failure the magnetic field slows down the inner and the outer rotor and keeps the speed of the synchronous alternator constant via an electronic controller.



The brushless KIN module presents high reliability, low maintenance efforts and a high MTBF value.



- 1) AC /DC exciter machine
- 2) Stator winding exciter machine
- 3) centrifugal mass
- 4) short circuit cage
- 5) inner rotor with AC / DC winding
- 6) bearing outer rotor
- 7) bearing inner rotor