

The invention concerns the systems of power supply of mobile transport vehicles, to which the energy is transferred through the air gap by electromagnetic induction, and it can be used in the explosive working media. A system of power supply contains an electric traction network, which wire in the quantity of $m = 3k$, where $k = 1, 2, 3, \dots$, are evenly distributed throughout entire length and are fixed on bodies of round shape, which are disconnected in the lower part, and power supply of wires is performed from a polyphase source by high-frequency current. On energy-receiver, which is located on the electric locomotive, a magnetic circuit is installed, which is made in the form of a cylinder from separate ferromagnetic rings separated from each other and located coaxially. The external surfaces of rings have grooves, in which conductors of the winding of energy-receiver are inserted. The winding is divided into separate groups of turns, which conductors are located in the opposite grooves of magnetic circuit. The invention provides for decrease of the action of magnetic fields, which are created by currents of windings on the exterior associated electro-conductive circuits, which decreases the danger at operation of the system of power supply.