

ABSTRACT OF THE DISCLOSURE

TITLE OF INVENTION: MOTOR WITH BUILT-IN PERMANENT MAGNETS

A rotor of a motor comprises a plurality of sets of permanent magnets 8a, 8b embedded in the rotor, and each set includes a permanent magnet at the inner side and another permanent magnet at the outer side with a distance between them. Each permanent magnet 8a, 8b is formed like an arch projecting towards the center of the rotor. Then, magnetic flux becomes easy to flow through an interval between the permanent magnets at the inner and outer sides, and the inductance in q-axis is enlarged. Then, the reluctance torque is generated in addition to the magnet torque, and the motor has a high torque and a high output power.

Figure 3