

ABSTRACT ELECTROMAGNETIC MOTOR WITH TWO COAXIAL
ROTORS

The motor (1) includes three stator parts (11, 12, 13) and two coaxial rotors (2, 3) each including a multipolar magnet having axial magnetisation (4, 5) arranged between the third (13) and the first (11) respectively the second stator poles (12). The latter each comprises two stator poles (15, 16, 22, 23) having a plurality of teeth (19, 20, 26, 27) staggered with respect to one another. In the rest positions of the rotors (2, 3) the magnetic dipoles (6) of their magnets (4, 5) are phase-shifted with respect to the respective teeth (19, 20, 26, 27). Two coils (51, 52) are each coupled to a stator pole (15, 22), a third coil (53) is coupled to the other two stator poles (16, 23).

As result of this arrangement, the motor (1) is compact and its rotors (2, 3) are able to rotate in both directions independently of each other.

Figure 2