

ABSTRACT

ELECTROMAGNETIC TRANSDUCER WITH A MULTIPOLAR PERMANENT MAGNET

The invention discloses a reversible two-phase electro-mechanical transducer comprising a stator (2) extending primarily over three levels and a rotor (38) including a multipolar permanent magnet (48) located between first and second principal stator parts (4, 8). The first stator part defines a stator hole and first and second principal magnetic poles (80, 82) magnetically coupled to secondary magnetic poles formed by the castellations (70) of a circular gapped crown located on the edge of the stator hole. The second principal stator portion defines at least one third principal magnetic pole (90), such second principal stator portion being magnetically coupled to each of the first and second principal magnetic poles by means of respective first and second magnetic flux guidance legs (12, 13), each bearing an energization winding (28, 29).

Figure 1

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