Abstract:

Motor drive circuit, as well as a data reading and/or recording apparatus comprising such a motor drive circuit.

A description is given of a motor drive circuit (9) for driving an electromotor (7) with a permanent magnet rotor and a stator comprising one or more stator windings (25, 26, 27). When the supply voltage of the motor drive circuit (9) fails, an emergency signal is generated by a signal generator (36).

This emergency control signal activates an auxiliary power supply circuit for extracting electric energy from the motor and supplying the extracted energy to an auxiliary circuit (8). The auxiliary power supply circuit comprises a rectifier circuit formed by the fly back diodes (25c, 25d, 26c, 26d, 27c, 27d) bridging the switches (25a, 25b, 26a, 26b, 27a, 27b) of an electronic commutation circuit. The drive circuit comprises short-circuit switches (25e, 26e, 27e) bridging the stator windings (25, 26, 27). In response to the emergency control signal a short-circuit means (37) causes the stator windings (25, 26, 27) to be temporarily intermittently short-circuited. As a result, a capacitor (32) is charged. The energy stored in the capacitor (32) is used for temporarily feeding an auxiliary circuit (8) once the power supply to the drive circuit has failed. If the drive circuit is used in combination with a hard disc drive, the energy supplied by the auxiliary power supply circuit can be used for moving the magnetic head (3) to an idle position.

Fig. 2.

This Sheet Has Been Replaced

