

METHOD AND APPARATUS FOR BRAKING A POLYPHASE DC MOTOR**ABSTRACT OF THE DISCLOSURE**

A circuit and method for braking a disk drive when a power fault occurs has a circuit (10) for producing an output signal (28) indicating that the motor of the disk drive has slowed at least to a predetermined rotational speed after the occurrence of the power fault. The components of the circuit (10) may be integrated onto the same integrated circuit as the motor driving circuitry or head retract circuitry. During the time between the occurrence of the power fault and the time the disk drive has slowed to the predetermined rotational speed, the read/write head mechanism (17) is retracted. A braking circuit then brakes the disk drive when the output signal (28) indicates that the motor has slowed at least to the predetermined rotational speed. The circuit for producing an output signal indicating that the motor has slowed at least to the predetermined rotational speed is actuated by the back-emf (14) generated by the motor falling below a predetermined level.

Figure 1