

DIRECT ACCESS STORAGE DEVICE (DASD) WITH A VARIABLE SPINDLE ROTATION SPEED

ABSTRACT

A method and apparatus are provided for variable spindle rotation speed in a direct access storage device (DASD) (100). The direct access storage device (DASD) (100) includes a multi-phase, brushless, direct current (DC) spindle motor (126). Speed and commutation control signals are applied to a plurality of spindle motor drivers (126) for normally operating the plurality of spindle motor drivers (126) in saturation mode while performing read and write operations. A spindle rotational speed is detected and compared with a predetermined spindle speed range. Responsive to the detected spindle rotational speed being within said predetermined spindle speed range, normal operations of the direct access storage device (DASD) (100) are enabled. One or more write sync fields are provided on each surface of a magnetic disk media. The write sync field is used for timing write operations in the direct access storage device (100).

Fig.6