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MAGNETIC DISK DRIVE AND MAGNETIC DISK DRIVE SYSTEM

ABSTRACT OF THE DISCLOSURE

A magnetic disk drive of which shape coefficient is 3.5 inches are provided, which is designed as rotating magnetic media in a high speed in order to consume a low electric power, to generate a less heat, and to access more quickly. When magnetic disk media are rotated in a higher speed, an electric power consumption and a heat generation are increased because of a load increase in rotating the magnetic disk media. An avoidance of such problems and setting an additional special cooling mechanism to magnetic disk drive systems, for example, disk array systems, is presented. A housing of the magnetic disk drive in a shape coefficient 3.5 inches mounts magnetic disk media 21 for a magnetic disk drive in a shape coefficient 2.5 inches, which aims a lightweighting of a rotational spindle portion, a decrease of a torque loss during on-load rotation with the media, and a decrease of a electric current into a spindle motor 41 during rotation. Further, fins 11a for heat radiation may be arranged around the housing 11, which results in avoidance or decrease raising a temperature in the housing 11.

Figure 1