| Feature | HDD | SSD |
|---|---|---|
| Full form | Hard Disk Drive | Solid State Drive |
| Technology | Mechanical with spinning platters and read/write heads | Flash memory with no moving parts |
| Speed | Slower access times (measured in milliseconds) | Faster access times (measured in microseconds) |
| Data Transfer Rate | Lower sequential read/write speeds | Higher sequential read/write speeds |
| Random Access Time | Higher latency | Lower latency |
| Reliability | Prone to mechanical failures | No mechanical parts, more reliable |
| Durability | Sensitive to physical shock and vibration | Resistant to physical shock and vibration |
| Power Consumption | Higher power consumption | Lower power consumption |
| Noise | Audible noise due to moving parts | Silent operation |
| Form Factor | Available in larger capacities and various form factors | Available in smaller capacities and various form factors |
| Price | Generally more cost-effective per unit of storage | Generally more expensive per unit of storage |
| Lifespan | Longer lifespan under normal usage conditions | Finite number of write cycles per memory cell |
| Usage Considerations | Suitable for large storage needs, secondary drives | Ideal for improved performance, primary drives, and portable devices |

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