

# SMALL WINCHESTER DISK DRIVES

## NP04/03/02 FAMILY

5/29/85  
1984



The disk drive is composed of 5 1/4-inch or 3.5-inch hard disk storage modules with a recording capacity of 13 to 86 megabytes.

The disk enclosure, which is factory sealed, contains heads, disks, a spindle with a motor, a head positioning mechanism, and absolute filters. The disk drive includes PCBs.

Mechanical interface is same as Mini-floppy and the electrical interface is designed to be the Modified Floppy (Seagate interface).

# PERFORMANCE SPECIFICATIONS

Models	NP04-13/20T	NP04-26F	NP02-13	NP02-26S	NP03-13/20	NP04-50	NP04-85
Performance							
Capacity(unformatted)	13.3/20.0	26.6	13.3	26.6	12.7/19.1	50.9	86.3
(MB) (formatted)	10.4/15.2	20.9	10.4	20.9	10.0/15.0	40.0	67.9
(32 sectors)							
Per surface(MB)	3.33			6.66	3.18	7.28	7.85
Per track(KB)	10.416						
Data transfer rate(KB/S)	625						
Access time(ms)							
(including settling time)							
Minimum	18				15 <del>18</del>	12 <del>15</del>	7 <del>10</del>
Average	95				88 85	45 40	35 30
Maximum	235				205	95	<del>60 55</del>
Average latency time(ms)	8.3			8.5	8.3		
Functional							
Rotational speed(RPM)	3600			3543	3600		
Recording density(BPI)	9060		10200		12500	9600	
Track density(TPI)	362		298	596	450	793	831
Cylinders	320			640	306	699	754
Disks	2/3	4	2		2/3	4	6
Start up time(S)	12 (typ)						15 (typ)
Operating environment							
Temperature	5 to 45°C(41 to 113°F)						
Relative humidity	8 to 80%RH						
Wet bulb maximum	25°C(78°F)Non-condensing						
Altitude	0 to 3000m(0 to 10000ft)						
Power requirements	1.6A(typ)		1.2A(typ)		0.6A(typ)	2.0A(typ)	
DC voltages +12V±5%	4.3A(max)		2.0A(max)		2.0A(max)	4.5A(max)	
+5V±5%	1.0A(typ)		1.0A(typ)		0.5A(typ)	1.5A(typ)	
Physical							
W × D × H(mm)	146 × 203 × 83		146 × 203 × 41.3		101.6 × 146 × 41.3	146 × 203 × 83	
Weight(kg)	2.5		1.4		1.0	3.0	
interface	ST506/412						
Access mechanism	Rotary Stepper					Rotary VCM	

Changes per Mr Asano  
Gen R+D Dept.  
5/29/85

↑  
Numerous  
changes



For further information, please contact :



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