hp surestore
disk array 12h

Using HP's AutoRAID technology to manage data storage, the HP Surestore Disk
Array 12H automatically maintains the most frequently accessed data in cache and
high-performance RAID 0/1 storage, while leaving less frequently accessed data in
more efficient RAID 5 space.

The 12H continually tunes its performance for increased data availability, remembering
when and how often data is accessed and moving it accordingly. When in operation,
the cache on the controllers is mirrored, ECC-protected, and dual-battery protected for
maximum high availability. Also, the contents of the cache are written to all disks when
the 12H disk array is shut down.

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key features	• AutoRAID technology for automatic optimization of data storage
	• up to 2.6 TB of raw storage in a 2-meter rack
	• the Model 12H supports HP's Openview, MC/Serviceguard, MC/Lockmanager and other software
	• supported on HP-UX, MPE, Windows NT,® and Windows® 2000 platforms
	• available in desk-side, rackmount, or factory-racked configurations
	• includes up to twelve 9.1, 18.2, or 36.4 GB 10,000 rpm disk drives in one enclosure
	• 16-bit SCSI-2 host interface with 20 MB/second throughput
	• comes with either dual controllers (HP-UX and Windows NT) or a single controller (HP-UX only)
	• supported with the Fibre Channel–SCSI Multiplexer (FC–SCSI MUX) for extra bandwidth/distance
	• 99.95 percent uptime guarantee

technical specifications

performance/throughput host interface	16-bit SCSI-2 20 MB/s (wide and differential)
drive bus	8-bit SCSI-2 10 MB/s (single-ended), 4 buses
array chassis capacity	Single enclosure Up to 364 GB (usable capacity) using 36.4 GB disks
	1.6 meter rack Up to 731.2 GB (usable capacity) using 36.4 GB disks
	1.6 meter back-to-back rack Up to 1.46 TB (usable capacity) using 36.4 GB disks
	2.0 meter rack Up to 1.09 TB (usable capacity) using 36.4 GB disks
	2.0 meter back-to-back rack Up to 2.19 TB (usable capacity) using 36.4 GB disks
storage controller	96 MB (A3706A) mirrored read/write cache
disk drive capacity	Formatted 10,000 rpm; 9.1 GB (A3713A), 18.2 GB (A3714A), 36.4 GB (A5292A)
revolution velocity	10,000 rpm

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hassle-free
high performance

hp ®

i n v e n t

technical specifications (continued)

transfer rate[†]	10,000 rpm @ 5–20 MB/s
average seek time/ average latency	10,000 rpm: <6 ms/2.99 ms
AC power	100/120/127 VAC or 200/230/240 VAC (autorange) (A3708A)
energy consumption efficiency maximum (ratio)	0.0070 W
VA rating	870 VA maximum
minimum power cord gauge	16 AWG
minimum/maximum number of power supplies	2/3

environmental characteristics

heat dissipation	3000 BTU/hr maximum
inrush current*[†]	41 A max @ 120 VAC or 83 A max @ 230 VAC with three line cords combined
frequency	50/60 Hz, single phase
input current*[†]	7.3 A @ 120 VAC, 3.8 A @ 230 VAC with all three line cords combined
temperature	**operating:** 41° to 104°F (5° to 40°C); **non-operating:** –40° to 149°F (–40° to 65°C)
relative humidity	**operating:** 10–80% RH @ 28°C (wet); **non-operating:** 10–90% RH @ 28°C (wet)
vibration	0.21 G (rms), 5–500 Hz
shock	4 G, 11 ms (1/2) sine
acoustic	5.9 B
altitude	**operating:** 0–10,000 ft (0–3,048 m); **non-operating:** 0–15,000 ft (0–4,572 m)
temperature gradient	10°C/hr

physical characteristics*

net weight	170 lb (77.2 kg)
shipping	202.5 lb (92 kg)
height	22.8 in (57.8 cm)
width	16.7 in (42.5 cm)
depth	12.2 in (31 cm)
safety and emc	FCC Class A, Canadian RMC Class A complies with EMC Directive 89/336/EEC; CISPR 22:1993/ EN 55022 (1994) Class A: EN50082-1: 1992; EN61000-3-2 (1995); EN61000-3-3 (1995); VCCI Registered Class 1
	IEC 950; 1991+A1+A2+A3; EN 60950: 1992+A1+A2+A3; CSA C22.2 NO.950-95; UL 1950 3rd Edition; IEC 825-1: 1993/EN60825-1: 1994 Class 1 (Laser/LED)

product numbers		
	A3700AD	HP Disk Array with AutoRAID deskside version
	A3700A	HP Disk Array with AutoRAID rackmount version
	A3700AZ	HP Disk Array with AutoRAID factory-racked version

*Maximum configuration: Model 12H enclosure with 3 power supplies, 3 fans, 12 disks, and 2 controllers.
†Disk manufacturers specify a range of interface transfer rates. Model 12H operates at 20 MB/s.