

# NetApp® FAS200 Series Enterprise Fabric-Attached Storage Specifications

## Product Highlights

Operating System	Network Appliance™ Data ONTAP™ 7G software
Standard Software Features	Integrated automatic RAID manager, Snapshot™, Fast Boot, telnet, e-mail alerts, NIS, DNS, SNMP, FilerView™, NDMP, SecureAdmin™, FlexVol™
Network Protocol Support	NFS V2/V3/V4 over UDP or TCP, PCNFSD V1/V2 for (PC) NFS client authentication, Microsoft® CIFS, VLD, HTTP 1.0, HTTP 1.1 Virtual Hosts
SAN Protocol Support	Fibre Channel Protocol (FCP) for SCSI; fabric-attached and direct-attached, iSCSI
Licensed Software Products	FlexClone™, SnapManager® for Microsoft Exchange 2000 & 2003, SnapManager for Microsoft SQL Server, SnapMirror®, SnapVault™, SnapRestore™, SnapDrive™, SnapLock™, Clustered Failover, MultiStore®, Virtual File Manager™, DataFabric™ Manager, SnapValidator
Hardware Features	3U Integrated filer and disk storage available in 19" rack-mount or tower configurations, redundant hot plug power supplies and cooling, 2 integrated full duplex 10/100/1000 ports, 2 integrated FC* adapters, CompactFlash and diagnostic LEDs/OPS
Default/Min./Max. RAID Group Sizes	RAID 4- Default: 6 data + 1 parity / Min: 1 data + 1 parity / Max: 13 data + 1 parity RAID DP- Default: 14 data + 2 parity / Max: 26 data + 2 parity
Disk Drive Capacities Supported (FC)	36/72/144/300GB (300GB FAS270c only)

Filer Specifications	FAS250	FAS270	FAS270c
Max. Raw Capacity	2TB	8TB	8TB
Max. Number of Disk Drives	14	56	56
Volumes and RAID Groups (min./max. of 1 RAID group per volume)	1/7	1/7	1/7
Max. Volume Size	2TB	8TB	8TB
ECC Memory	512MB	1GB	2GB
Nonvolatile Memory	64MB	128MB	256MB
Integrated I/O			
Ethernet 10/100/1000 Copper	2	2	4
Copper FC Adapter	1	1	2
Optical FC Adapter (host-attach SAN/TapeSAN)	N/A	1	2
Clustered Failover-Capable	N/A	No	Yes
Cabinet Configuration	No	Yes	Yes

## Filer and Storage Subsystem Environmental Specifications

AC Power / Max. Current	100 to 120VAC, 4 A; 200 to 240VAC, 2 A
Thermal Rating	1,215 Btu/hr (fully loaded shelf)
Dimensions (height/width/depth)	3 EIA U (5.25", 13.3 cm) / 19" EIA rack compliant (17.6", 44.7 cm) / 20" (50.8 cm)
Weight (max.)	78.8 lb (35.8 kg) fully loaded
Operating Temperature & Relative Humidity	10°C to 40°C (50°F to 104°F); 10% to 90% relative humidity, non condensing
Nonoperating Temperature & Relative Humidity	-40°C to 65°C (-40° F to 149° F); 10% to 95% relative humidity, non condensing
Operating Acoustic Noise	<49 dBA @ 1m at 23°C
Min. Service Clearances	9" (23 cm) front; 30" (76.2 cm) rear; 3" (7.6 cm) rear for cable radius

## Storage Sub-system

Disk Drive Storage System	DiskShelf14mk2 based - 14 low-profile slots for FC disk drives
Disk Drive Storage Interface	Fibre-Channel Arbitrated Loop (FC-AL)
Power Supply/Cooling Fans	Dual, redundant, hot-pluggable, integrated power supply/fan assemblies (220V/110V)

## HARDWARE

Network Appliance hardware gives you the industry's most flexible, reliable, and scalable storage solutions, with easy administration and built-in redundancy for maximum data availability and protection.

### NetApp Systems Cabinet

Includes 2 Sets of Dual 16A, Zero or 1 Set of 24A Power Distribution Units (PDU)	Max configs: Accommodates 1 FAS270 with 2 shelves to a max of 9U with available space for other NetApp approved equipment
AC Power	200 to 240 VAC
Current	32A total-2 redundant sets of dual 16A cables with NEMA L6-20 or IEC 309-16 connectors or Australia AS/NZS3123-20 or 24A total - 1 redundant set of 24A cables with NEMA L6-30 or IEC 309-32 connectors.
Dimensions (height/width/depth)	78.75" (200 cm) / 23.6" (60 cm) / 37.4" (95 cm)
Min. Clearances	48" (122 cm) front and rear
Weight (empty)	125 kg (275 lb)

### Regulations

Filer Safety	EN 60950:2000, CE, UL60950-2000, CSA 60950-00, CB IEC 60950 Ed. 3 (all national deviations), EN60825-1:1994+A11, IRAM, GOST-R
Disk Shelf Safety	UL/C-UL: CE
Emissions	FCC Class A, EN 55022:1998, EN 61000-3-2, EN 61000-3-3, CE, BSMI, AS/NZ 3548, VCCI
Immunity	EN 55024:1998

### FAS200 Enterprise Filer Supported Backup Methods

Disk-Based Backup	SnapVault, SnapMirror
Host-Based Backup	NDMP/NFS/CIFS/FCP/iSCSI
GbE-Based Backup	Quantum ATL GbE Libraries, Spectra Logic GbE Libraries Visit <a href="http://www.netapp.com/osn/info/config_gbe.html">www.netapp.com/osn/info/config_gbe.html</a> for current supported libraries.
Direct-Attached Tape Drive Support (optical)	EIBM 3590B & 3590E, IBM ULT3580-TDI (LTO), IBM (LTO, LTO2) Sony GY 8240 (DTF2), STK 9840, 9840B, 9940, 9940B Exabyte Mammoth II Visit <a href="http://www.netapp.com/solutions/data_protection_devices.html">www.netapp.com/solutions/data_protection_devices.html</a> for current supported drives.
TapeSAN support (copper)	Spectra Logic 2K Copper Interface Spectra Logic 10K Copper Interface with copper GBIC (HSSDC) Spectra Logic 12K, 20K, 64K G1 FQIP with copper GBIC (HSSDC) StorageTek L20, L40, L80 with copper GBIC (HSSDC)
TapeSAN support (optical))	Visit <a href="http://www.netapp.com/osn/info/config.html">www.netapp.com/osn/info/config.html</a> for current supported libraries.

### FAS270/c FC Switch Support—SAN & Tape SAN

Vendor	Support	Model
Brocade	Tape SAN only	Silkworm 2400/2800
Brocade	SAN & Tape SAN	Silkworm 3200/3250/3800/3850/3900/4100/12000/24000
McDATA	Tape SAN only	ES-3016/ES-3032/6XXX
McDATA	SAN & Tape SAN	Sphereon 4300, 4500
Cisco	SAN & Tape SAN	MDS -9120/-9140/-9216/-9509/-9506

\*FC = Fibre Channel, \*\* Visit [http://now.netapp.com/NOW/knowledge/docs/san/fcp\\_iscsi\\_config/fcp\\_switch.shtml](http://now.netapp.com/NOW/knowledge/docs/san/fcp_iscsi_config/fcp_switch.shtml) for updated FCP solution support.



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