THE POSSIBILITIES ARE INFINITE FUJITSU

DATA SHEET

ETERNUS DX80

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ETERNUS DX80

The ETERNUS DX80 storage system continues FUJITSU's success story for entry-level storage systems and sets new standards for green storage.
Fujitsu's new entry-level storage system, the ETERNUS DX80 is the successor to the ETERNUS2000 Model 200 and FibreCAT SX80/SX88. It continues the legacy of quality, performance and ROI value. Fujitsu's new ETERNUS DX brand stands for uncompromised quality, innovation, leading edge performance, and easy-to-manage storage offered with an outstanding price/performance ratio.

The ETERNUS DX80 delivers full featured RAID levels (0, 1, 5, 1+0, 5+0, 6) with MAID to deliver instant power and cooling cost savings by enabling any infrequently accessed RAID groups to spin down in EcoMode. With the ETERNUS DX80 virtualization features for RAID migration data can be easily and dynamically migrated between RAID groups. As a leader in Green development Fujitsu introduces the CacheProtector feature which replaces power hungry batteries with power efficient capacitors to destage write content during power failures. This further simplifies storage management by eliminating battery management overhead.

Fujitsu's ETERNUS DX80 includes high availably features like Data Block Guard which adds 8-byte check code to every 512-byte data to ensure enterprise class data integrity. Redundant Copy rebuilds single disk drives at the first sign of a failure which dramatically reduces recovery time and minimizes the risk of permanent data loss.
Fujitsu's license-free encryption option prevents unauthorized access to confidential data at rest. All these features make the ETERNUS DX80 the most reliable green storage system of its class.

The energy saving SAN Storage device can be scaled from 600 GB to 120 TB and is equipped with all state-of-the-art high-performance SAS and large capacity Nearline SAS Disks. Nearline SAS drives have the capacity and low cost of Nearline SATA drives, while using the enterprise SAS interface which is more reliable, feature-rich (e.g. SCSI command queuing vs. SATA native command queuing), dual ported (for redundant storage controller access) and faster.
The standard system is delivered with 8 snapshots and can be extended to 1,024 snapshots. The ETERNUS DX80 has four 4 Gb/s or 8 Gb/s Fibre Channel host ports depending on the model and can connect up to 128 servers in SAN mode.

Main features	Benefits
Redundant RAID controllers, fans and power supplies that are hot swappable	For highest 99.99% availability
CacheProtector uses capacitor technology to protect RAID controller cache during power outages	Returns the array to high performance mode within minutes following restore
Redundant copy rebuilds a disk automatically as soon as the first signs of failure appear	Dramatically reduces recovery times and minimizes the risk of permanent data loss during recovery
Data Block Guard saves another 8 bytes every 512 bytes	Helps to ensure data integrity on the disk and in the cache
RAID Migration enables LUNs to be moved dynamically between different RAID groups and hard disks without interrupting operations	Different service levels can be realized depending on the access frequency and importance

Mixing SAS and Nearline SAS hard disks	Fulfills all main performance and capacity requirements
EcoMode spins down disks	Reduces energy consumption and heat dissipation
Latest technologies and improved RAID Controller 8Gb/s or 4 Gb/s Fibre Channel technology 15,000 rpm SAS disk drives Build-in 8 snapshots upgradeable to overall 1,024	For highest performance For improved data protection
Intuitive web interface	Easy to install and use
A wide range of Operating Systems, servers as well as applications is supported	Versatile usage scenarios for data bases, storage consolidation, clustering, tiered storage, backup-to-disk and many others

TECHNICAL DETAILS

ETERNUS DX80

General specification		Single controller type	Dual controller type
RAID levels		0, 1, 1+0, 5, 5+0, 6	
Storage capacity	**Physical capacity**	Max. 120 TB	
	Logical capacity	Max. 88.6 TB	
Cache memory capacity		2 GB	4 GB
CPU frequency		1.2 GHz	
Number of controllers		1	2
Host interface		Fibre Channel (8/4/2 Gbps), Fibre Channel (4/2/1 Gbps)	
Number of host interfaces		2	4
Number of connectable hosts		Max. 64	Max. 128
Number of disk drives		2 - 120	
Drives	**SAS**	450 GB / 300 GB (15,000 rpm)	
	Nearline SAS	1 TB / 750 GB (7,200 rpm)	
Drive interface		Serial Attached SCSI (3 Gbps)	

Installation specification		
Dimensions (W × D × H)	**Standard**	483 mm × 650 mm × 88 mm (2U)
	Maximum	20 U
Service Area		Front: 800 mm, Rear: 800 mm
Maximum Weight		350 kg (w. 35 kg per single enclosure)
Power	**Voltage**	AC 100 V – 240 V
	Phase	Single
	Frequency	50 Hz / 60 Hz
Maximum Power Consumption	**AC100 – 120V**	3,774 W (3,929 VA)
	AC200 – 240V	3,805 W (4,129 VA)
Maximum Heat Generation	**AC100 – 120V**	13,587 KJ/H
	AC200 – 240V	13,698 KJ/H
Environmental Conditions	**Temperature**	5 – 40°C (Operating), 0 – 50°C (Not Operating)
	Humidity	20 – 80% RH (Operating), 8 – 80% RH (Not Operating)

Supported RAID levels

RAID 0	Data Striping on several disk drives
RAID 1	Mirrored disk drives
RAID 1+0	Data mirroring, then striping of the data over several disk drives
RAID 5	Striping with distributed parity
RAID 5+0	RAID 5 arrays, Striped again over several drives
RAID 6	Striping with distributed double parity

Management

Interfaces:	Ethernet (1000 Base-T / 100 Base-TX / 10 Base-T)
Supported protocols:	SNMP, SMI-S
Administration	Web-Environment, CLI

Options

Hot-plug Drives (SAS and Nearline SAS, mixing is possible)

Up to 9 Expansion Shelves cascaded with the Base Shelf

Upgrade to 1024 Snapshots

Ambient conditions (DIN EN 60721·

Operating temperature	5°C to 40°C (IEC 721)
No operating temperature	-40°C to 70°C
Relative Humidity	10% - 90%, non condensing

Heat Dissipation

Max. Heat Dissipation	1926 kJ/h

Noise Emission according ISO 9296

Operating/Idling	LpAm 47 dB / 47 dB
	LWAD 6,5 B / 6,5 B

Compliance with standards

Product safety	UL listed, cUL, CE, CSA-C22.2, EN 60950-2000, IEC 60950, GS, GOST
Approval	GS, CSA (US/C), CB-certificate
Electromagnet. Compatibility	
FCC Certification	FCC Part 15 Class B, ICES-003, EN 300-386, EN 55022 Class B, VCCI Class B, AS/NZS 3548 Class B, BMSI Class B
Vibrations	EN 61000-3, EN 61000-3-3
Immunity	EN 300-386, EN 55024
CE certification	EU Directive: 89 / 336 / EWG (EMV); EN 61000-3-2 and EN 6100-3-3
	73 / 23 / EWG (Product security)
Environmental compliance	RoHS-compliant
	WEEE-compliant

For more product information please go to http://www.fujitsu.com/eternus

Information about Fujitsu's environmental activities
www.fujitsu.com/global/about/environment/

Green Policy Innovation

SUPER Green Product
This product has the top-level environmental factor in the comparison with our previous product or product in market.

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