



FUJITSU ETERNUS DX8000 SERIES DISK STORAGE SYSTEMS FOR LARGE ENTERPRISES

ETERNUS DX DISK STORAGE SYSTEMS ARE THE MOST RELIABLE AND SECURE DATA SAFES AVAILABLE, FROM ONLINE BACKUP TO MISSION-CRITICAL APPLICATIONS, FROM ENTRY-LEVEL TO HIGH-END USAGE SCENARIOS.



ETERNUS DX – THE DATA SAFE

ETERNUS DX disk storage systems – the most reliable and secure data safes: For small and medium-sized businesses, ETERNUS DX60, DX80, and DX90 provide fast and highly available data. For mid-range and enterprise customers who need secure and flexible integration into the data center, Fujitsu offers the ETERNUS DX400 series and ETERNUS DX8000 series. ETERNUS DX disk storage systems use the same software stack and hardware functions across the entire range to allow ease-of-use and greater efficiency for users.

ETERNUS SF – Fujitsu's Storage Management Software – reduces total cost of ownership by simplifying the monitoring and management of ETERNUS DX disk storage systems. Furthermore it helps to achieve business continuity by leveraging the Advanced Copy functions for data backup, using snapshots and clones. Altogether, with ETERNUS SF, storage resources in complex IT environments are optimized.

As one of the world's leading IT services companies, Fujitsu combines many years of experience in complex data centers to offer tailor-made solutions that perfectly fit customers' individual requirements. Moreover, Fujitsu is one of the few global players to provide flexible infrastructures with its Dynamic Infrastructures strategy: server, storage, networking and service solutions – all from one trusted partner.

ETERNUS DX8000 SERIES

ETERNUS DX8400/DX8700 disk storage systems continue the Fujitsu success story in the enterprise segment. This generation of RAID systems offers a high degree of data storage reliability. In combination with proven software delivering, ETERNUS DX8400/DX8700 disk storage systems offer the sturdiness you need in dynamic infrastructures. They offer multi-dimensional scalability and the capability to maximize the pooling of storage resources. A rapid increase in storage capacity will be no problem, since controller power, cache and host interfaces can be easily increased. ETERNUS DX8400/DX8700 disk storage systems are suitable for a large range of applications. With their Eco-mode which uses the MAID technology, ETERNUS DX8400/DX8400 disk storage systems are some of the most energy efficient storage systems in their class.

This datasheet will give you an overview of ETERNUS DX8000 series disk storage systems



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



FEATURES AND BENEFITS

MAIN FEATURES	BENEFITS
<p>FAMILY CONCEPT</p> <ul style="list-style-type: none"> ■ Fujitsu ETERNUS DX family from entry-level to enterprise-level systems 	<ul style="list-style-type: none"> ■ Simplifies administration: you know one model – you know the whole family ■ High-end features are also available in mid-range and entry systems
<p>PERFORMANCE AND CAPACITY</p> <ul style="list-style-type: none"> ■ Outstanding performance ■ Market leading capacity 	<ul style="list-style-type: none"> ■ Outstanding price/performance ratio ■ Large storage capacity to grow (up to 5456 TB)
<p>MULTI-PLATFORM SUPPORT</p> <ul style="list-style-type: none"> ■ Multi-platform support for server and operating systems 	<ul style="list-style-type: none"> ■ Perfect for a large range of applications in heterogeneous environments
<p>DATA INTEGRITY</p> <ul style="list-style-type: none"> ■ Data Block Guard 	<ul style="list-style-type: none"> ■ Ensures maximum data integrity on drives, in cache and during the transfer ■ Guarantees consistency of all stored data
<p>DATA SECURITY</p> <ul style="list-style-type: none"> ■ Data Encryption 	<ul style="list-style-type: none"> ■ Protection of sensitive data ■ Simple and cost effective
<p>DATA PROTECTION AND AVAILABILITY</p> <ul style="list-style-type: none"> ■ A variety of high-speed volume copy functions ■ Redundant Copy 	<ul style="list-style-type: none"> ■ High availability and business continuity ■ Disaster Recovery Scenarios ■ Ensures data redundancy by solving the problem of long recovery times within a RAID group due to increasing capacity of drives
<p>FLEXIBLE MANAGEMENT</p> <ul style="list-style-type: none"> ■ RAID Migration ■ Thin Provisioning 	<ul style="list-style-type: none"> ■ Move data to fast or low-priced drives for easy adaption to changing requirements ■ Use the most appropriate RAID level ■ Capacity virtualization which enables better utilization of resources with no disruption to operations
<p>GREEN IT</p> <ul style="list-style-type: none"> ■ Eco-mode with MAID technology (drive spin down) 	<ul style="list-style-type: none"> ■ Very easy to handle ■ Eco-mode conserves energy and costs
<p>ETERNUS SF</p> <ul style="list-style-type: none"> ■ AdvancedCopy Manager (ACM) ■ Storage Cruiser (SC) ■ Disk Space Monitor 	<ul style="list-style-type: none"> ■ ETERNUS SF reduces total cost of ownership by managing the operation of ETERNUS DX disk storage systems. ETERNUS SF achieves business continuity and optimizes storage resources in complex IT environments.
<p>DYNAMIC INFRASTRUCTURES</p> <ul style="list-style-type: none"> ■ Comprehensive IT portfolio (Server, Storage, Networking, Solutions, Services and flexible delivering models) 	<ul style="list-style-type: none"> ■ We optimize our customers' infrastructures by focusing on the customers' individual business requirements ■ Comprehensive look on the whole data center – not only to optimize customers Data Center – but to meet his business needs

TECHNICAL DETAILS

ETERNUS DX8000 SERIES

GENERAL SPECIFICATION	ETERNUS DX8400	ETERNUS DX8700
Host-interface	Fibre Channel (Max 8 Gbit/s) and/or iSCSI (1 Gbit/s) and/or OCLINK (Max.17MB/s) and/or FCLINK (Max. 2Gbit/s) ¹	
Number of Controller Modules (CM)	2 or 4	2 or 4 or 6 or 8
Number of Channel Adapters (CA)	each CM with 1 or 2 or 4 CA	
Number of Connectable Hosts	max 64 Initiator per CA Port, 1024 per System	
- Notes: Channel Adapters	FC CA, iSCSI CA, OCLINK CA, FCLINK CA mixable within CM	
Each FC CA with	2 or 4 host-interfaces 8 Gbit/s FC	
Each iSCSI CA with	2 host-interfaces 1 Gbit/s iSCSI	
Each OCLINK CA (Fujitsu Mainframe only) with	2 host-interfaces 17MB/s OCLINK	
Each FCLINK CA (Fujitsu Mainframe only) with	2 host-interfaces 2Gbit/s FCLINK	
Number of FC host-interfaces	4 - 64	16 -128
Number of iSCSI host-interfaces	4 - 32	4 - 64
Number of OCLINK host-interfaces	4 - 32	4 - 64
Number of FCLINK host-interfaces	4 - 32	4 - 64
- Notes: Host-interfaces	mixed configurations possible	
Cache memory capacity	8 - 256 GB	32 - 512 GB
RAID levels	0, 1, 1+0, 5, 6	
Number of drives	16 - 1020	64 - 2760
- Notes: Max. number of Enterprise SSD	32 (plus hot spares)	
Max. Physical storage capacity	2008 TB	5456 TB
Max. Logical capacity with RAID5	1558.1 TB	4250.6TB
FC disk drives (15,000rpm) for Unix/Industry Standard Server	600GB / 450GB / 300GB	
FC disk drives (15,000rpm) for Global Server	146GB / 73GB / 36GB	
SATA disk drives (7,200rpm) for Unix/Industry Standard Server	2TB / 1TB / 500GB	
Enterprise SSD (Enterprise-class Solid State Drives) for Unix/Industry Standard Server	400GB / 200GB	
Enterprise SSD for Global Server	200GB / 146GB / 73GB	
Drive interface	Fibre Channel (4Gbit/s)	
INSTALLATION SPECIFICATION		
Dimensions (W x D x H): Floor stand with max. expansion cabinets	ETERNUS DX8400 740 x 995 x 1,800 mm 3,840 x 995 x 1,800 mm	ETERNUS DX8700 1,360 x 995 x 1,800 mm 10,040 x 995 x 1,800 mm
Service Area	Front: 850mm or more, Rear: 850mm or more, Left: 50mm or more, Right: 0mm	
Maximum Weight Floor stand	4,230 kg	10,930 kg
Power Voltage	AC 200 – 240 V	
Power Phase	Single	
Power Frequency	50 Hz / 60 Hz	
Maximum Power Consumption	36,700W (39,500VA)	96,400W (103,700VA)
Maximum Heat Generation	132,200KJ/H	347,100KJ/H
Environmental Conditions: Temperature (Operating)	5 – 35°C	
Environmental Conditions: Humidity (Operating)	20 – 80% RH	

¹ FCLINK/OCLINK are used for the configuration linked to Fujitsu GlobalServer.

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 6	Striping with distributed double parity

MANAGEMENT

Interfaces:	100BASE-TX/10BASE-T
Supported protocols:	SNMP, SMI-S
Administration	Web-Environment

SUPPORTED CONFIGURATIONS

A wide range of host operating systems, servers as well as applications is supported.

For a detailed support matrix check <http://ts.fujitsu.com/products/storage/matrixEP.html>

COMPLIANCE WITH STANDARDS

Safety, Quality and Environmental Standards	CSA60950-1, UL60950-1, EN60950-1, IEC 60950-1, ISO9001, ISO14001, GOST-R
Electromagnetic Compatibility	FCC Class A, CE Mark, EN55022 Class A, VCCI Class A(for Japan), AS/NZS CISPR 22 Class A (for Australia/New Zealand)
Electromagnetic Immunity	EN55024

Compliance note: There is general compliance with the safety requirements of all European countries and North America.

National approvals required in order to satisfy statutory regulations or for other reasons can be applied for on request.

Compliance link: <https://sp.ts.fujitsu.com/sites/certificates/default.aspx>

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

FUJITSU PLATFORM SOLUTIONS

In addition to Fujitsu ETERNUS DX, Fujitsu provides a range of platform solutions. They combine reliable Fujitsu products with the best in services, know-how and worldwide partnerships.

Dynamic Infrastructures

With the Fujitsu Dynamic Infrastructures approach, Fujitsu offers a full portfolio of IT products, solutions and services, ranging from clients to datacenter solutions, Managed Infrastructure and Infrastructure-as-a-Service. How much you benefit from Fujitsu technologies and services depends on the level of cooperation you choose. This takes IT flexibility and efficiency to the next level.

Computing Products

www.fujitsu.com/global/services/computing/
- PRIMERGY: Industrial standard server
- SPARC Enterprise: UNIX server
- PRIMEQUEST: Mission-critical IA server
- ETERNUS: Storage system

Software

www.fujitsu.com/software/
- Interstage: Application infrastructure software
- Systemwalker: System management software

MORE INFORMATION

Learn more about Fujitsu ETERNUS DX, please contact your Fujitsu sales representative, Fujitsu business partner, or visit our website.
www.fujitsu.com/eternus/

FUJITSU GREEN POLICY INNOVATION

Fujitsu Green Policy Innovation is our worldwide project for reducing burdens on the environment. Using our global know-how, we aim to resolve issues of environmental energy efficiency through IT. Please find further information at:
www.fujitsu.com/global/about/environment/



COPYRIGHT

© Copyright 2010 Fujitsu Technology Solutions GmbH.
Fujitsu, the Fujitsu logo are trademarks or registered trademarks of Fujitsu Limited in Japan and other countries. Other company, product and service names may be trademarks or registered trademarks of their respective owners.

DISCLAIMER

Technical data subject to modification and delivery subject to availability. Any liability that the data and illustrations are complete, actual or correct is excluded. Designations may be trademarks and/or copyrights of the respective manufacturer, the use of which by third parties for their own purposes may infringe the rights of such owner.

CONTACT

FUJITSU Limited
Website: www.fujitsu.com/eternus/
2010-06-28 WW-EN