

EMC CLARiiON CX600 Networked Storage System

Specifications

RAID Levels

RAID 0: Data striped across three to 16 drives
 RAID 1: Mirrored pairs of two drives
 RAID 1/0: Data mirrored, then striped across four to 16 drives
 RAID 3: Independent data access on five or nine drives (with dedicated parity disk)
 RAID 5: Independent data access on three to 16 drives (with striped parity)
 Any combination of these RAID levels can exist on a single CX600
 RAID stripe depth configurable to 4, 16, 64, 128, or 256 sectors per disk
 Rebuild priority tuning: adjustment of minimum I/O reserved for server use during rebuild
 Configurable global hot spares

Front End (Host) Connectivity

Two storage processors per CX600
 Each storage processor has four 200 MB/s Fibre Channel optical ports
 FCP SCSI-3 protocol
 Command tag queuing up to 256 tags
 FC-AL and FC-SW support

Maximum Cable Length

Shortwave Optical: 300 meters (2 Gb/s), 500 meters (1 Gb/s)

Back End (Disk) Connectivity

Each storage processor has two 200 MB/s Fibre Channel Arbitrated Loops. Multiple RAID groups may be distributed across redundant loops to maximize bandwidth to disks.

Drive Interface

Failover from each storage processor to both Fibre Channel loops is possible

	36 GB (10,000)	36 GB (15,000)	73 GB (10,000)	146 GB (10,000)	250 GB ATA (5,400)
Formatted Capacity					
(520 bytes/sector)	35.15 GB	32.9 GB	71.25 GB	145.7 GB	247 GB
Form Factor	3.5"	3.5"	3.5"	3.5"	3.5"
Height	1.0"	1.0"	1.0"	1.0"	1.0"
Rotational Speed	10,000 rpm	15,000 rpm	10,000 rpm	10,000 rpm	5,400 rpm
Interface	Fibre Channel	Fibre Channel	Fibre Channel	Fibre Channel	ATA
Data Buffer	16 MB	8 MB	16 MB	32 MB	2 MB
# of Segments	Up to 16	Up to 16	Up to 16	Up to 16	Variable
Transfer Rates					
Buffer to/from Media	26.7-40.2 MB/s	51-69 MB/s	26.7-40.2 MB/s	43-78 MB/s	26-50 MB/s
SP to/from Buffer	200 MB/s (max.)	200 MB/s (max.)	200 MB/s (max.)	200 MB/s (max.)	133 MB/s (max.)
Access Time					
Average Seek	5.2 ms Read 6.0 ms Write	3.6 ms Read 4.2 ms Write	5.2 ms Read 6.2 ms Write	4.7 ms Read 5.3 ms Write	12 ms Read 13 ms Write
Rotational Latency	2.99 ms	2 ms	2.99 ms	2.99 ms	5.5 ms



Available Software*

- SnapView™:** point-in-time view of information for nondisruptive backup and BCVs
- MirrorView™:** remote synchronous mirroring for disaster protection
- Nondisruptive Upgrade (NDU):** online upgrades of storage software and microcode
- Navisphere® Manager:** complete configuration, management, and event notification
- Navisphere Analyzer:** comprehensive performance, management, and trends analysis
- CLARAlert™:** constant system monitoring and remote diagnostics
- Access Logix™:** data protection, shared storage access, and security for heterogeneous SAN environments
- SAN Manager™:** data protection, shared storage access, SAN management
- StorageScope™:** storage asset management
- PowerPath®:** path failover for continuous data access and dynamic load balancing
- SAN Copy™:** Enables local or long distance data movement between various arrays (e.g., CLARiiON, Symmetrix®, StorageWorks HSG80)
- DB Tuner for Oracle:** Software used to optimize Oracle database performance

* Consult your EMC account manager for availability, software configuration, and compatibility information.

Dimensions (approximate)

Rackmount Processor Chassis with Standby Power Supplies (standard NEMA 19-inch rack)

Height	Width	Depth	Weight
8.75 in. (22.23 cm), 5 EIA units (includes SPS)	17.5 in. (44.5 cm)	27.57 in. (70.02 cm)	139 lb. (63.1 kg) max.

Rackmount 2 Gbit Fibre Channel Disk Expansion Chassis with Dual Power Supplies

Height	Width	Depth	Weight
5.25 in. (13.33 cm), 3 EIA units	17.72 in (45 cm)	23.75 in. (60.38 cm)	88 lb. (40 kg) max. configuration

Rackmount ATA Disk Expansion Chassis with Dual Power Supplies

Height	Width	Depth	Weight
5.25 in. (13.33 cm), 3 EIA units	17.72 in (45.0 cm)	23.75 in. (60.38 cm)	84 lb. (38 kg) max. configuration

40U Rack Enclosure

Height	Width	Depth	Weight
75.0 in. (190.8 cm)	24.0 in. (61.1 cm)	36.0 in. (91.6 cm)	Empty: 300 lb. (136 kg)

Power

	Processor Chassis*	2Gbit Fibre Channel Disk Expansion Chassis*	ATA Disk Expansion Chassis*
Frequency	47-63 Hz	47-63 Hz	47-63 Hz
AC Voltage	90-264 Vrms, single phase	90-264 Vrms, single phase	90-240 Vrms, single phase
Power Factor	.98 (min)	.98 (min)	.98 (min)
Power Consumption (maximum)	520 VA, 510W	400 VA, 392W	300 VA, 294W
Heat Dissipation (maximum)	2,170 BTU/hour	1,340 BTU/hour	1,017 BTU/hour
Protection	Rackmount: 10 amps, fused	Rackmount: 10 amps, fused	Rackmount: 10 amps, fused
AC Circuits	Redundant, external AC circuits	Redundant, external AC circuits	Redundant, external AC circuits
Inlet Type	Dual Inlet Rackmount: IE320-C14 appliance coupler	Dual Inlet Rackmount: IE320-C14 appliance coupler	Dual Inlet Rackmount: IE320-C14 appliance coupler

* All Chassis Models have Dual Standby Power Supplies

AC Power Capability

40U Cabinet

Dual Inlets
NEMA L6-30P or IEC309-332 P6 or IP-57 (Australia)
200-240 VAC +/- 10%, Single Phase
47-63 Hz
4800 VA @ 200 V, 5760 VA @ 240 V
30A, 2-pole circuit breaker

Operating Environment

Temperature: 50-104 degrees F (10-40 degrees C)
Temperature Gradient: 10 degrees C/hr
Relative Humidity: 20% to 80% (non-condensing)

Altitude

8,000 ft. (2438.4 m) @ 104 degrees F (40 degrees C) max.
10,000 ft. (3048 m) @ 98.6 degrees F (37 degrees C) max.

Electromagnetic Emissions and Immunity

FCC Class A	EN55022 Class A
CE Mark	VCCI Class A (for Japan)
ICES-003 Class A (for Canada)	AS/NZS 3548 Class A (for Australia/New Zealand)
EN55024 Immunity, ITEBSMI	Class A (for Taiwan)

Safety

UL 1950; CSA C22.2-950; IEC 950, TUV

Quality Standard

Manufactured under an ISO 9000-registered quality system



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