

# EMC ISILON X-SERIES



EMC Isilon X210



EMC Isilon X410

The EMC® Isilon® X-Series, powered by the OneFS® operating system, uses a highly versatile yet simple scale-out storage architecture to speed access to massive amounts of data, while dramatically reducing cost and complexity. The Isilon X-Series is comprised of two product lines — the Isilon X210, a 2U platform, and the Isilon X410, a 4U platform. The Isilon X-Series is highly flexible and strikes the balance between large capacity and high-performance storage. The X-Series is an ideal solution for high-throughput and high-concurrency applications. With SSD technology for file system metadata and file-based storage workflows, the EMC Isilon X-Series also accelerates namespace-intensive operations.

**Agility:** The Isilon X-Series scales from a few terabytes (TB) to over 20 petabytes (PB) and over 200 gigabytes per second (GB/s) of throughput within a single cluster. When needed, you can scale capacity and performance by adding a node in about a minute.

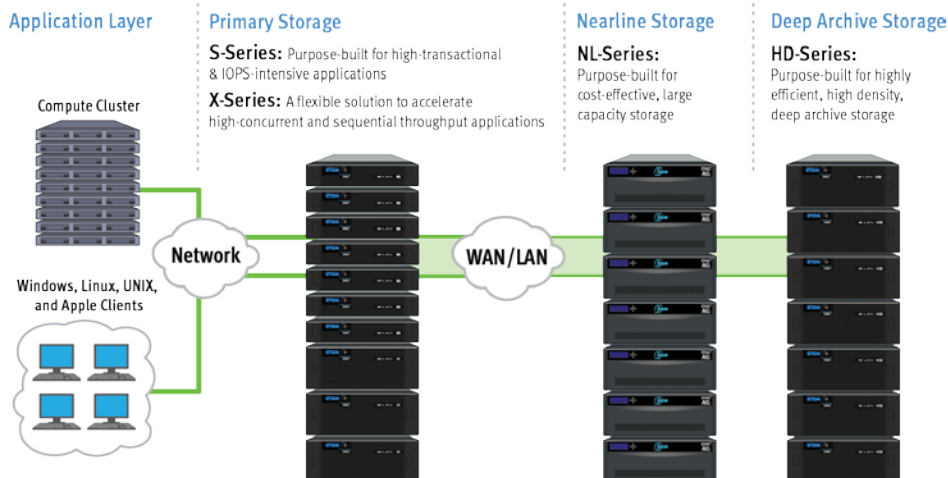
**Simplicity:** With its modular architecture, the Isilon X-Series makes deployment and management simple. Once racked, an X-Series cluster can be brought online in less than 10 minutes. With a single pool of storage with a global namespace, an X-Series cluster eliminates the need to support multiple volumes and simplifies management.

**Efficiency:** With Isilon, you can achieve highly efficient utilization rates—over 80 percent compared to about 50 percent for traditional storage. Isilon's SmartDedupe™ data deduplication option allows you to further reduce your storage requirements by up to 30 percent. This translates into lower acquisition and operating costs.

**Security:** With optional FIPS 140-2 level 2 self-encrypting drives, the X-Series platform allows you to meet regulatory and compliance needs for securing data at rest without sacrificing performance or usability.

## Specifications

### ARCHITECTURE



REDEFINE

SPECIFICATION SHEET

EMC<sup>2</sup>

## EMC ISILON X-SERIES NODE SPECIFICATIONS

ISILON X210 NODE ATTRIBUTES & OPTIONS	1 TB HDD	2 TB HDD	3 TB HDD	4 TB HDD
	Requires Isilon OneFS 7.2.1 operating system or later			
<b>CAPACITY</b>	6-12 TB	12-24 TB	18-36 TB	24-48 TB
<b>HARD DRIVES (3.5" 7200 RPM)</b>	6-12	6-12	6-12	6-12
<b>SELF-ENCRYPTING DRIVE (SED HDD) OPTION (7200 RPM)</b>	No	No	Yes	Yes
<b>SOLID-STATE DRIVES (200, 400, OR 800 GB)</b>	Up to 6	Up to 6	Up to 6	Up to 6
<b>SELF-ENCRYPTING DRIVE (SED SSD) OPTION (800 GB)</b>	No	No	Yes (0, 1, 2 or 4)	Yes (0, 1, 2 or 4)
<b>SYSTEM ECC MEMORY</b>	24 GB or 48 GB			
<b>FRONT-END NETWORKING</b>	2 x 1 Gigabit Ethernet and 2 x 10GbE (SFP+ or twin-ax copper)			
<b>NETWORK INTERFACES</b>	Isilon network interfaces support IEEE 802.3 standards for 10Gbps, 1Gbps, and 100Mbps network connectivity			
<b>DRIVE CONTROLLER</b>	SATA-3, 6 Gb/s			
<b>CPU TYPE</b>	Single Intel® Xeon® Processor E5-2407 @ 2.4 GHz, 4 Core			
<b>INFRASTRUCTURE NETWORKING</b>	2 InfiniBand connections supporting DDR and QDR links			
<b>NON-VOLATILE RAM (NVRAM)</b>	2 GB			
<b>TYPICAL POWER CONSUMPTION @ 100V</b>	400 Watts			
<b>TYPICAL POWER CONSUMPTION @ 240V</b>	400 Watts			
<b>TYPICAL THERMAL RATING</b>	1,370 BTU/hr			

ISILON X410 NODE ATTRIBUTES & OPTIONS	1 TB HDD	2 TB HDD	3 TB HDD	4 TB HDD
	Requires Isilon OneFS 7.1.1 operating system or later			
<b>CAPACITY</b>	30–36 TB	60–72 TB	90–108 TB	120–144 TB
<b>HARD DRIVES (3.5" 7200 RPM)</b>	30–36	30–36	30–36	30–36
<b>SELF-ENCRYPTING DRIVE (SED HDD) OPTIONS (7200 RPM)</b>	No	No	Yes	Yes
<b>SOLID-STATE DRIVES (400 GB, 800 GB OR 1.6 TB)</b>	0-6	0-6	0-6	0-6
<b>SELF-ENCRYPTING DRIVE (SED SSD) OPTIONS (800 GB)</b>	No	No	Yes (0, 2, 4, or 6)	Yes (0, 2, 4, or 6)
<b>SYSTEM ECC MEMORY</b>	64 GB, 128 GB, or 256 GB			
<b>FRONT-END NETWORKING</b>	2 x 1 Gigabit Ethernet and 2 x 10GE (SFP+ or twin-ax copper)			
<b>NETWORK INTERFACES</b>	Isilon network interfaces support IEEE 802.3 standards for 10Gbps, 1Gbps, and 100Mbps network connectivity			
<b>DRIVE CONTROLLER</b>	SATA-3, 6 Gb/s			
<b>CPU TYPE</b>	Dual, 8-core Intel® Xeon® processor			
<b>INFRASTRUCTURE NETWORKING</b>	2 InfiniBand connections supporting DDR and QDR links			
<b>NON-VOLATILE RAM (NVRAM)</b>	2 GB			
<b>TYPICAL POWER CONSUMPTION @ 100V</b>	N/A			
<b>TYPICAL POWER CONSUMPTION @ 240V</b>	700 Watts			
<b>TYPICAL THERMAL RATING</b>	2,400 BTU/hr			

CLUSTER ATTRIBUTES	X210	X410
<b>NUMBER OF NODES</b>	3-144	3–144
<b>CAPACITY</b>	18 TB-6.9 PB	108 TB–20.7 PB
<b>MEMORY</b>	72 GB-6.9 TB	192 GB to 36.8 TB
<b>RACK UNITS</b>	6-288	12–576

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## PRODUCT ATTRIBUTES

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<b>SCALE-OUT ARCHITECTURE</b>	Truly distributed, fully symmetric clustered architecture that combines modular storage nodes with EMC data and storage management software
<b>MODULAR DESIGN</b>	Self-contained nodes include server, software, and disks in your choice of 2U or 4U rack-mountable nodes
<b>OPERATING SYSTEM</b>	EMC Isilon OneFS distributed file system: creates a cluster with a single file system and single global namespace; fully journaled, fully distributed, globally coherent write/read cache
<b>HIGH AVAILABILITY</b>	No single point of failure; self-healing design protects against disk or node failure; includes back-end intra-cluster failover
<b>SCALABILITY</b>	Scales from 3 to 144 nodes in a single cluster with up to 20.7 PB capacity and 200 GB/s concurrent throughput; add a node to scale performance and capacity in 60 seconds
<b>DATA PROTECTION</b>	FlexProtect™ file-level striping with support for N+1 through N+4 and mirroring data protection schemes
<b>DATA REPLICATION</b>	SyncIQ® fast and flexible file-based asynchronous replication
<b>DATA RETENTION</b>	SmartLock® policy-based retention and protection against accidental deletion
<b>DATA ENCRYPTION OPTION</b>	FIPS 140-2 level 2 validated self-encrypting drives (SEDs) with unique AES-256 bit strength keys assigned to each drive
<b>SECURITY</b>	File system audit capability to improve security and control of your storage infrastructure and address regulatory compliance requirements
<b>EFFICIENCY</b>	SmartDedupe data deduplication option, which can reduce storage requirements by up to 35 percent
<b>PROTOCOL SUPPORT</b>	NFSv3, NFSv4, NFS Kerberized sessions (UDP or TCP), SMB1 (CIFS), SMB2, SMB3 Multichannel, HTTP, FTP, NDMP, SNMP, LDAP, HDFS, ADS, NIS reads/writes
<b>CLIENT SUPPORT</b>	Microsoft® Windows®, Linux, UNIX®, Apple® Macintosh®
<b>SOFTWARE COMPATIBILITY</b>	Compatible with all EMC Isilon licensable software including: SyncIQ, SnapshotIQ™, SmartConnect™, SmartDedupe, SmartQuotas™, SmartPools®, InsightIQ™, and Aspera for Isilon

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## ENVIRONMENTAL SPECIFICATIONS

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<b>POWER SUPPLY</b>	X210: Dual-redundant, hot-swappable 650W power supplies with power factor correction (PFC) X410: Dual-redundant, hot-swappable 1100W power supplies with power factor correction (PFC)
<b>OPERATING ENVIRONMENT</b>	50° F to 95° F (10° C to 35° C), 5% to 95% relative humidity, non-condensing
<b>DIMENSIONS/ WEIGHT</b>	X210: height: 3.48" (8.8 cm), width: 18.87" (47.9 cm), depth: 28.5" (72.4 cm), weight: 61 lbs (27.7 kg) X410: height: 6.96" (17.7 cm), width: 18.90" (48 cm), depth: 28.5" (72.4 cm), weight: 120 lbs (54.5 kg)
<b>MINIMUM SERVICE CLEARANCES</b>	Front: 35" (88.9 cm), rear: 14" (35.6 cm)

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## SAFETY AND EMI COMPLIANCE

### STATEMENT OF COMPLIANCE

This Information Technology Equipment is compliant with the electromagnetic compatibility (EMC) and product safety regulations/standards required by the countries in which the product is sold. EMC compliance is based on FCC part 15, CISPR22/CISPR24 and EN55022/EN55024 standards, including applicable international variations. EMC compliant Class A products are marketed for use in business, industrial, and commercial environments. Product Safety compliance is based on IEC 60950-1 and EN 60951-1 standards, including applicable national deviations.

This Information Technology Equipment is in compliance with EU RoHS Directive 2011/65/EU.

The individual devices used in this product are approved under a unique regulatory model identifier that is affixed to each individual device rating label, which may differ from any marketing or product family name in this datasheet.

For additional information see <https://support.emc.com> under the Safety & EMI Compliance Information tab.

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## TAKE THE NEXT STEP

Contact your EMC sales representative or authorized reseller to learn more about how the EMC Isilon X-Series can benefit your organization.

Also see our solutions in the EMC Store at <https://store.emc.com/isilon>.



## CONTACT US

To learn more about how EMC products, services, and solutions can help solve your business and IT challenges, [contact](#) your local representative or authorized reseller, visit [www.emc.com](http://www.emc.com), or explore and compare products in the [EMC Store](#).

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The EMC logo, consisting of the letters "EMC" in a bold, white, sans-serif font, with a superscript "2" to the right. The logo is set against a solid blue rectangular background.