

E-SERIES V **EFFICIENT,** **VERSATILE** **MODULAR** **STORAGE** **DATA SHEET**

Reliable High Density
Storage Arrays
Turbocharged for High
Performance.



PRESENT PERFECT. FUTURE READY. **THE NEXSAN E-SERIES V STORAGE PLATFORM.**

The Nexsan E-Series V is an ultra-reliable, high-density, high performance, efficient storage system that enables organizations to lower their content storage costs, maximize storage uptime, and boost data storage ROI.

The E-Series V storage arrays and expansion units offer mid-size organizations affordable enterprise-level Fibre Channel, SAS and/or iSCSI SAN storage used for a variety of capacity-optimized and performance-driven applications. For larger organizations, E-Series V is a versatile SAN or DAS solution to stay ahead of the enormous data growth, demanding workloads, and high resiliency requirements in media & entertainment, government, healthcare, HPC, financial, surveillance and service provider sectors.

TURBOCHARGED PERFORMANCE

E-Series V features an advanced active/active controller design, including use of a dedicated hardware engine, or “turbocharger”, which accelerates RAID parity generation and doubles the sequential write performance over the prior version of E-Series. The turbocharged E-Series V is ideal for back-up/recovery applications and continuous data streaming bulk storage applications.

HIGH-DENSITY, POWER EFFICIENT

Organizations deploying E-Series V systems are able to mix and match capacity-optimized HDDs, performance-optimized HDDs and SSDs to accommodate applications based on performance or capacity needs. E-Series V systems consume less than one-third of the power in one-third of the rack space of typical arrays, with up to 480 terabytes of capacity in just one 4U, and up to a total of 1.44 PB in a fully-scaled, 12U configuration. Users of E-Series V systems can engage Nexsan AutoMAID™ disk management capabilities to reduce power consumption by up to 87 percent, reducing operating expenses and extending the overall life of the system.

ULTRA-RELIABLE

E-Series V systems exceed the most stringent reliability demands, leveraging an innovative mechanical design including Cool Drive Technology™ and anti-vibration design that significantly reduce heat and vibration in the unit while improving system reliability and performance. The reliability of E-Series V is qualified through extensive stress testing before shipment. Array-based snaps and asynchronous replication extend E-Series V data protection capabilities.

For more information, download the Snap & Replication data sheet.

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HIGHLIGHTS

- **Reliability** – featuring Anti-vibration design and Cool Drive Technology[™]
- **Availability** – using Active Drawer Technology[™] and redundant hot swappable active components
- **Density** – up to 60 drives in 4U
- **High Performance** – utilizes Imation's latest multi RAID engine controller technology
- **Energy Efficient** – delivering up to 87% reduction in power while lowering your cooling needs through the use of AutoMAID[™]
- **Encryption** – AES 256 hardware based encryption
- **Flexible Connectivity** – connecting via SAS, Fibre Channel or iSCSI
- **Easy to Manage** – remotely managing one or many systems within a single, intuitive GUI.

ENCRYPTION AT REST

E-Series encryption is configured to automatically encrypt data by using self-encryption drives (SED) with AES-256 encryption, so you know that data at rest is fully protected. The E-Series management interface allows the encryption/decryption process to be transparent and does not compromise performance. To prevent unauthorized access to the data, the storage system must authenticate itself with the drive using an authentication key that is established upon the first time use of the drive. The encryption key is managed by the controller, so no key management is required by the user. With optional FIPS 140-2 level 2 certified self-encrypting drives, the E-Series FIPS SED allows you to meet regulatory and compliance needs for securing data at rest. E-Series SED provides the security you need without forgoing performance or usability.

Re-purpose or retire your storage without compromising data by allowing E-series to cryptographically erase all encrypted data.

HIGHLY RESILIENT, CONTINUOUSLY AVAILABLE

The E-Series system features high-availability architecture, with multipathing support and dual redundant, hot-swappable active components. SNMP alerts or email notifications are sent to the administrator in the event of a component failure and upon a drive failure a spare drive is automatically rebuilt into the RAID set. With up to 16GB of battery-backed and flash-protected cache per controller, the E-Series solution mirrors cache between controllers in a dual controller configuration. Active Drawer Technology[™] overcomes the challenges of competitive arrays by allowing a single drawer of drives to be pulled out and serviced easily while keeping your data available.

E-SERIES V MODEL AVAILABILITY

E-Series V is offered in four core configurations with available expansion units:

- **E60VT (480 TB in 4U)**
- **E48VT (384 TB in 4U)**
- **E32V (57.6TB in 2U, 2.5" drives only)**
- **E18V (144 TB in 2U)**



	E18V	E32V	E48VT	E60VT
System Form Factor	2U 18 drives	2U 32* drives	4U 48 drive	4U 60 drives
Max Number of Drives	54	96	144	180
Raw Storage (Max)	432TB	172.8TB	1.15PB	1.44PB
Controllers (Max)	2			
Cache/Controller (Max)	4GB	4GB	16GB	16GB
Drive Types**	7.2K SAS, 10K SAS, 15K SAS, SSD			
Encryption at rest option	Yes			
FIPS certified SED encryption at rest option	Yes	No	Yes	Yes
RAID Levels	0, 1, 1+0, 4, 5, 6			
Network Protocols	1GbE/10GbE iSCSI 8Gb/16Gb FC 6Gb SAS 16Gb FC			
Dimensions – Height	3.47 in 8.81 cm	3.47 in 8.81 cm	6.93 in 17.6 cm	6.93 in 17.6 cm
Dimensions – Depth	31.5 in 80.00 cm	31.5 in 80.00 cm	33.46 in 85.0 cm	37.99 in 96.5 cm
Dimensions – Depth w/Front Bezel	32.82 in 83.4 cm	32.82 in 83.4 cm	35.63 in 90.5 cm	40.16 in 102 cm
Dimensions – Depth w/ Front Bezel and rear handles	33.27 in 84.5 cm	33.27 in 84.5 cm	36.06 in 91.6 cm	40.59 in 103.1 cm
Maximum Weight w/drives & rails	108.2 lbs 49.1 kg	90.2 lbs 40.9 kg	201.1 lbs 91.2 kg	235.5 lbs 106.8 kg
Operating Temperature Range	5°C to 30°C 41°F to 86°F		5°C to 35°C 41°F to 95°F	
Operating Humidity Range	20% to 80% non-condensing			
Operating Altitude	0 to 2,133 m 0 to 7,000 ft			
Non-Operational Altitude	0 to 12,192 m 0 to 40,000 ft			

* 2.5" only (all others support 2.5" or 3.5")

** For the latest supported drives go to www.imation.com/nexsan

FEATURES AND BENEFITS

ACTIVE DRAWER TECHNOLOGY™

- No system downtime - Allows for easy, hot-swappable drive management
- Drives remain active when drawer is open
- Increased reliability and reduced external wire management

COOL DRIVE TECHNOLOGY™

- Optimizes air flow and component cooling
- Increases product reliability by reducing component temperatures
- System redundancy ensures adequate cooling even if a fan fails
- Variable speed fans with temperature sensors

ANTI-VIBRATION DESIGN

- Reduces vibration to improve system performance and reliability
- Drives mounted counter-rotating
- Thick plates in chassis eliminate vibrations
- Anti-vibration fan mounts

AUTOMAID™

- Up to 87% energy savings and lowers your cooling needs
- Ideal for backup to disk or bulk storage scenarios
- Configurable on a per-disk set basis
- Easy to set up and maintain via GUI
- Can improve drive reliability by reducing power-on-hours

ADVANCED CONTROLLER*

- Dedicated hardware engine accelerates RAID parity generation
- Up to 2x the sequential write performance over the prior generation E-Series systems.
- Data protection maintained even through power outage via onboard flash-based emergency backup storage
- Power-controlled riser card enables data offload from DIMM to controller flash

DATA ENCRYPTION

- Secures data at rest
- Transparent to user
- Re-purpose or retire storage without compromising data
- FIPS option available

* Available only in the E48VT and E60VT



ABOUT IMATION

Imation is a global data storage and information security company. Imation's Nexsan portfolio features solid-state optimized unified hybrid storage systems, secure automated archive solutions and high-density enterprise storage arrays. Nexsan solutions deliver high performance for mission-critical IT applications such as virtualization, cloud, databases, and collaboration; and energy efficient, high-density storage for backup and archiving. For more information, visit www.imation.com/nexsan.