EXOS™ ENTERPRISE

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Efficient Storage Expansion
Exos E 2U12

Seagate® Exos™ E 2U12 is the datasphere's ideal platform for Storage expansion, supporting efficient growth, performance, and high capacity at an affordable price.

Product Highlights

- Optimise space, leverage the latest drive technologies and capacities
- Safeguard data with intelligent fault diagnosis, resolution capabilities, persistent error logging, and monitoring
- Deliver data fast using Seagate hard drives, SSDs, or a combination of both
- Ensure data is available with N+1 PCMs, I/O modules, and dual data paths to all drives
- Maximum of 28.8 GB/s in a dual controller configuration

Key Advantages

Transfer Data Fast With a 12 Gb/s SAS Interface. Get data to applications when and where it's needed with up to 12 Gb/s, yielding an effective maximum throughput of 14.4 GB/s in a single I/O module or 28.8 GB/s in a dual controller configuration. With an expansion capability up to 144 solid-state drives or hard drives, expand your capacity of business knowledge with no sacrifice in performance.

Deliver Versatile Architecture Built to Grow. This flexible enclosure includes support and capabilities to manage cables, universal ports, configuration controls and standardized zoning. As a key building block of our modular systems — which make all critical components interchangeable regardless of size or budget — this enclosure's modularity makes it easy to set up, maintain, and expand via interchangeable FRUs and hot-swappable components.

Ensure Applications Have Access to Critical Data. Safeguard your data with fault diagnosis, resolution capabilities, persistent error logging, and monitoring while ensuring maximum availability and harnessing high-availability features such as dual PCMs and I/O modules, as well as dual data paths to all drives.

Reduce Cost and Resources With Energy-Efficient Features. This enclosure is suited for both high-capacity and transaction-dependent environments that demand tighter Service Level Agreement (SLA) requirements and need faster response times for optimal data availability. It meets stringent worldwide requirements for recycling and environmental friendliness, can help you minimise environmental impact, and recognise cost savings through high performance.

Reduce power consumption 80 PLUS Gold and 80 PLUS Platinum power supply options with certified adaptive cooling technology.

Build In Security at the Foundation of the Data Life Cycle. Protect your most valuable business assets with guaranteed compatible Seagate Secure™ SSDs and hard drives.

Specifications	
Controller	Dual I/O modules per enclosure
Host/Expansion Interface	Three universal ×4 12 Gb/s mini-SAS HD connectors (SFF-8644) per I/O module
Management/Status Reporting	CLI via RS232 and 100Base-T port SES via SAS SFF-8644 ports
Maximum System Configuration	Dual host-connected enclosure with a maximum expanded configuration of 12 enclosures for a total of 144 drives
Device Support	Dual port 12 Gb/s and 6 Gb/s SAS drives.
Max Drives per Enclosure	12 (for a full list of supported drives, please contact your account or sales manager)
Hot-Swappable Components	Drives, power cooling modules (PCM), and SBB I/O modules
Physical	Height: 88.9 mm/3.5 in (2 EIA units) | Width: 483 mm/19 in (IEC rack compliant) | Depth: 630 mm/24.8 in | Weight: 26 kg/52.7 lb (with drives)
Power Requirements — AC Input	
Input Power Requirements	90VAC-264VAC, 50 Hz/60 Hz
Max Power Output per PSU	580W
Environmental/Temperature Ranges	
Operating/Nonoperating Altitude	0 m to 3,000 m (0 ft to 10,000 ft)/–300 m to 12,192 m (–1,000 ft to 40,000 ft)
Operating/Nonoperating Temperature	ASHRAE A3, 5°C to 40°C (41°F to 104°F), derate 1°C/175m above 900m, 20°C/hr max rate of change / –40°C to 70°C (–40°F to 158°F)
Operating/Nonoperating Humidity	–12°C DP and 10% RH to 21°C DP and 80% RH, max DP 21°C / 5% to 100% non-condensing
Operating/Nonoperating Shock	5 Gs, 10ms, half sine pulses/15 Gs, 10ms, half sine pulses
Operating/Nonoperating Vibration	0.21 Gs rms (5-500Hz) / 1.04 Gs rms (2-200Hz)
Power Supply Units	
Power Supply	Ecodesign (Part SP-PCM01-HE580-AC/Model FS580FS104G-XX) – Gold Power Efficiency 115VAC/60 Hz|230VAC/50 Hz Power Factor Condition 10% Load = >80% | >80% 10% Loading = N/A 20% Load = >87%|>88% 20% Loading = >0.90 50% Load = >90%|>92% 50% Loading = >0.90 100% Load = >87%|>88% 100% Loading = >0.95
Power Supply	Ecodesign (Part SP-PCM4-PT580-AC/Model SGT-S-0580ADU00) – Platinum Power Efficiency 115VAC/60 Hz|230VAC/50 Hz Power Factor Condition 10% Load = >80% | >80% 10% Loading = N/A 20% Load = >90% | >90% 20% Loading = >0.90 50% Load = >92% | >94% 50% Loading = >0.95 100% Load = >89% | >91% 100% Loading = >0.95

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Efficient Storage Expansion.
Exos E 2U24

Seagate® Exos™ E 2U24 is the datasphere's ideal platform for Storage expansion, supporting efficient growth, performance, and high capacity at an affordable price.

Product Highlights

- Save space with up to 24 SFF drives in a 2U rackmount enclosure
- Expansion for your high-performance deployments
- Safeguard data with intelligent fault diagnosis, resolution capabilities, persistent error logging, and monitoring
- Use the latest Drive Technologies.
- Ensure data is available with N+1 PCMs, I/O modules, and dual data paths to all drives
- Maximum of 28.8 GB/s in a dual controller configuration

Key Advantages

Transfer Data Fast With a 12 Gb/s SAS Interface. Get data to applications when and where it's needed with up to 12 Gb/s speed, right-sized capacity, and effective maximum throughput of 14.4 GB/s in a single I/O module or 28.8 GB/s in a dual controller configuration. Even with expansion capability of up to 144 hard drives or solid-state drives, there is no sacrifice of space for performance.

Deliver Versatile Architecture Built to Grow. This flexible enclosure includes support and capabilities to manage cables, universal ports, self-configuration controls and standardized zoning. As a key building block of our modular systems — which make all critical components interchangeable regardless of size or budget — this enclosure's modularity makes it easy to set up, maintain, and expand via interchangeable FRUs and hot-swappable components.

Ensure Applications Have Access to Critical Data. Safeguard your data with fault diagnosis, resolution capabilities, persistent error logging, and monitoring while ensuring maximum availability and harnessing high-availability features such as dual PCMs and I/O modules, as well as dual data paths to all drives.

Reduce Cost and Resources With Energy-Efficient Features. This enclosure is suited for high-capacity, transaction-dependent environments that demand tighter Service Level Agreement (SLA) requirements and need faster response times for optimal data availability. It meets stringent worldwide requirements for recycling and environmental friendliness, can help you minimise environmental impact, and recognise cost savings through high performance and efficiency.

Reduce power consumption 80 PLUS Gold and 80 PLUS Platinum power supply options with certified adaptive cooling technology.

Build In Security at the Foundation of the Data Life Cycle. Protect your most valuable business assets with guaranteed compatible Seagate Secure™ hard drives.

Specifications	
Controller	Dual I/O modules per enclosure
Host/Expansion Interface	Three universal ×4 12 Gb/s mini-SAS HD connectors (SFF-8644) per I/O module
Management/Status Reporting	CLI via RS232 and 100Base-T port SES via SAS SFF-8644 ports
Maximum System Configuration	10 Total Enclosures including Master
Device Support	Dual-port 12 Gb/s and 6 Gb/s SAS drives
Max Drives per Enclosure	24 (for a full list of supported drives, please contact your account or sales manager)
Hot-Swappable Components	Drives, power cooling modules (PCM), and SBB I/O modules
Physical	Height: 88.9 mm/3.5 in (2 EIA units) | Width: 483 mm/19 in (IEC rack compliant) | Depth: 630 mm/24.8 in | Weight: 24 kg/53 lb (with drives)
Power Requirements — AC Input	
Input Power Requirements	90VAC-264VAC, 50 Hz/60 Hz
Max Power Output per PSU	580W
Environmental/Temperature Ranges	
Operating/Nonoperating Altitude	0 m to 3,000 m (0 ft to 10,000 ft)/–300 m to 12,192 m (–1,000 ft to 40,000 ft)
Operating/Nonoperating Temperature	ASHRAE A3, 5°C to 40°C (41°F to 104°F), derate 1°C/175m above 900m, 20°C/hr max rate of change / –40°C to 70°C (–40°F to 158°F)
Operating/Nonoperating Humidity	–12°C DP and 10% RH to 21°C DP and 80% RH, max DP 21°C / 5% to 100% non-condensing
Operating/Nonoperating Shock	5 Gs, 10ms, half sine pulses/15 Gs, 10ms, half sine pulses
Operating/Nonoperating Vibration	0.21 Gs rms (5-500Hz) / 1.04 Gs rms (2-200Hz)
Power Supply Units	
Power Supply	Ecodesign (Part SP-PCM01-HE580-AC/Model FS580FS104G-XX) – Gold Power Efficiency 115VAC/60 Hz|230VAC/50 Hz Power Factor Condition 10% Load = >80% | >80% 10% Loading = N/A 20% Load = >87%|>88% 20% Loading = >0.90 50% Load = >90%|>92% 50% Loading = >0.90 100% Load = >87%|>88% 100% Loading = >0.95
Power Supply	Ecodesign (Part SP-PCM4-PT580-AC/Model SGT-S-0580ADU00) – Platinum Power Efficiency 115VAC/60 Hz|230VAC/50 Hz Power Factor Condition(PFC) 10% Load = >80% | >80% 10% Loading = N/A 20% Load = >90% | >90% 20% Loading = >0.90 50% Load = >92% | >94% 50% Loading = >0.95 100% Load = >89% | >91% 100% Loading = >0.95

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Efficient Storage Expansion
Exos E 4U106

Seagate® Exos™ E 4U106 is the datasphere's ideal platform for Storage expansion, supporting efficient growth, performance, and high capacity at an affordable price.

Product Highlights

- Scale your data centre with this very high density storage platform
- Minimise a data centre's footprint and power consumption while maximising storage space
- Eliminate efficiency-draining acoustic interference with the proprietary noise attenuator
- Maintain your data centre easily with toolless drive carriers that save hours of time
- Ensure data is constantly available with hot-swappable controllers, PSUs, system fan modules, drives, and expander cards

Key Advantages

Build Exabyte-Scale Data Centres Fast. Increase the amount of data that fits in a 4U rack by leveraging up to 106 of our high-capacity hard drives or solid-state drives in a single enclosure that holds an unprecedented capacity of business intelligence. With an overall maximum bandwidth of 36 GB/s, you can access mission-critical and archival data with lightning speed.

Deliver Versatile Architecture Built to Grow. This flexible enclosure includes support and capabilities to manage cables, universal ports, self-configuration controls and standardized zoning. As the largest building block of our modular systems — which make all critical components interchangeable regardless of size or budget — this platform sets the new standard for data centre solutions with extremely high density and capacity, all with noteworthy reliability and performance.

Easy to Set Up, Maintain, and Expand. This system's user-focused design reduces support calls and minimises system downtime. Its modularity makes it first-in-class for reliability, easy setup, maintenance, and expansion via hot-swappable expanders and dual data paths, as well as redundant I/O modules, fans and power supplies. Additionally, this system features toolless drive carriers that allow an administrator to snap drives into the 106 bays in seconds.

Reduce Cost and Resources With Energy-Efficient Features. This enclosure is suited for high data retention requirements that are expected to grow. Innovative drive placement maximises airflow and minimises power consumption, while unique performance, efficiency, and scalability features provide an exceptionally low TCO.

Build In Security at the Foundation of the Data Life Cycle. Protect your most valuable business assets with Seagate Secure™ cybersecurity features.

Reduce Power Consumption 80 PLUS Titanium and 80 PLUS Platinum power supply options with certified adaptive cooling technology.

Specifications	
Redundant Path	Yes (SAS only)
Host/Expansion I/O Ports	Four ×4 mini-SAS HD Expansion I/O connectors per I/O module
Management/Status Reporting	In-band SCSI Enclosure Services
Device Support	12 Gb/s SAS drives (contact your account or sales manager about 6 Gb/s SATA)
Max Drives per Enclosure	106 (for a full list of supported drives, please contact your account or sales manager)
Hot-Swappable Components	Hard drives, power supply units (PSUs), cooling modules, side-plane expanders, and I/O modules
Physical	Height (with top cover): 176.4 mm/6.95 in | Width (without ears and rails): 441 mm/17.4 in | Depth (with handles, without cables): 1139 mm/44.8 in | Weight 45 kg / 99 lb | Weight (with drives): 141 kg/310 lb[1]
Power Requirements	
Input Power Requirements	200VAC-240VAC, 50Hz/60Hz
Max Power Output per PSU	2000W
Environmental/Temperature Ranges	
Operating/Nonoperating Altitude	−100 m to 3,000 m (−330 ft to 10,000 ft) / −100 m to 12,192 m (−330 ft to 40,000 ft)
Operating/Nonoperating Temperature	ASHRAE A2, 5°C to 35°C (41°F to 95°F) derate 1°C for every 300m above 900m / −40°C to +70°C (−40°F to +158°F)
Operating/Nonoperating Humidity	−12°C DP and 8% RH to 21°C DP and 80% RH, Max DP 21°C, Max rate of change (°C/hr): 5/20/5% to 100% non-condensing
Operating/Nonoperating Shock[2]	3 Gs, 11 ms (per axis) / 15 Gs, 7 ms, 10 shock pulse
Operating/Nonoperating Vibration[3]	0.18 Gs rms, 5Hz to 500Hz, 30 min per axis / 0.54 Gs rms (in Z) 0.25 Gs rms (in X & Y), 6Hz to 200Hz
Power Supply Units	
Power Supply	Ecodesign (Model 700-014575-0800) – Platinum Power Efficiency 230VAC50/Hz Power Factor Conditions (PFC) 10% Load = >80% 50% Loading = >0.90 20% Load = >90% 50% Load = >94% 100% Load = >91%
Power Supply	Ecodesign (Model SPASGAT-02) – Titanium Power Efficiency 230VAC50/Hz Power Factor Conditions (PFC) 10% Load = >90% 50% Loading = >0.95 20% Load = >94% 50% Load = >96% 100% Load = >91%

1 Weight with drives includes CMA and rack rails, as well as 1.8 lb per drive.
2 Non-operating shock measured with 2 shocks per axis X, Y in positive and negative direction and 2 shocks in positive Z axis
3 Non-operating vibration measured with chassis mounted on test fixture for 4 hrs in each axis (ISTA 3E)

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Efficient Storage Expansion
Exos E 5U84

Seagate® Exos™ E 5U84 is the datasphere's ideal platform for Storage expansion, supporting efficient growth, performance, and high capacity at an affordable price.

Product Highlights

- Deliver peace of mind with features to protect data, including dual power supplies, fan modules, and I/O modules, as well as dual data paths to all drives

- Easily manage cables, universal ports, self-configuration controls, and standardised zoning

- Seamlessly expand to 336 drives as business grows

- Efficiently manage your data centre with a 5U rackmount enclosure and unique drawer design that provides easy access to drives

- Maximum of 28.8 GB/s in a dual controller configuration

Key Advantages

Transfer Data Fast With a 12 Gb/s SAS Interface. Get data to applications when and where it's needed with up to 12 Gb/s speed, remarkable capacity, and effective maximum throughput of 14.4 GB/s in a single I/O module or 28.8 GB/s in a dual controller configuration. Even with an expansion capability of up to 336 hard drives or solid-state drives, there is no sacrifice of space for performance.

Deliver a Versatile Architecture Built to Grow. Minimise your TCO and store PBs of data within a single enclosure that leads the industry in both density and cost-for-performance while enabling easy multi-enclosure expansion via interchangeable FRUs and SBB 2.0 compatibility. This flexible enclosure includes support and capabilities to manage cables, universal ports, self-configuration controls, and standardized zoning while helping you accelerate the market introduction of new technologies and significantly simplify the development and testing of storage implementations.

Ensure Applications Have Access to Critical Data. Safeguard your data with fault diagnosis, resolution capabilities, persistent error logging, and monitoring while ensuring maximum availability and harnessing high-availability features such as dual cooling, PCMs, and I/O modules, as well as dual data paths to all drives.

Reduce Cost and Resources With Energy-Efficient Features. This enclosure is suited for high-capacity, transaction-dependent environments that demand tighter Service Level Agreement (SLA) requirements and need faster response times for optimal data availability. It meets stringent worldwide requirements for recycling and environmental friendliness, can help you minimise environmental impact, and recognise cost savings through high performance.

Reduce power consumption 80 PLUS Titanium and 80 PLUS Platinum power supply options with certified adaptive cooling technology.

Specifications	
Controller	Dual EBOD storage bridge bay (SBB) 2.1 compatible I/O modules per enclosure
Host/Expansion Interface	Three universal ×4 12 Gb/s mini-SAS connectors (SFF-8644) per I/O module
Management/Status Reporting	CLI via RS232 and 100Base-T port, SCSI enclosure services (SES) via SAS SFF-8644 ports
Maximum System Configuration	Dual host-connected enclosure with a maximum expanded configuration of 4 enclosures for a total of 336 drives
Device Support	Dual-ported 12 Gb/s SAS
Max Drives per Enclosure	84 (for a full list of supported drives, please contact your account or sales manager)
Hot-Swappable Components	Drives, power supply units (PSU), cooling modules, side planes, and SBB I/O modules
Physical	Height: 220 mm/8.65 in (5 EIA units)	Width: 483 mm/19 in (IEC rack compliant)	Depth: 933 mm/36.75 in	Weight: 135 kg/298 lb (with drives, no rail kit)
Power Requirements — AC Input	
Input Power Requirements	180VAC-240VAC, 50Hz/60Hz
Max Power Output per PSU	2200W
Environmental/Temperature Ranges	
Operating/Nonoperating Altitude	−100 m to 3,000 m (−330 ft to 10,000 ft) / −100 m to 12,192 m (−330 ft to 40,000 ft)
Operating/Nonoperating Temperature	ASHRAE A2, 5°C to 35°C (41°F to 95°F), derate 1°C / 300m above 900m, 20°C / hr max rate of change / −40°C to 70°C (−40°F to 158°F)
Operating/Nonoperating Humidity	−12°C DP and 10% RH to 21°C DP and 80% RH, max DP 21°C / 5% to 100% non-condensing
Operating/Nonoperating Shock	5 Gs, 10 ms, half sine pulses/20 Gs, 10 ms, half sine pulses
Operating/Nonoperating Vibration	0.21 Gs rms (5-500Hz) / 1.04 Gs rms (2-200Hz)
Power Supply Units	
Power Supply	Ecodesign (Part UD-PCM2-2200-AC/ Model SGT-S-2200ADE00) – Titanium Power Efficiency 230VAC50/Hz — Power Factor Conditions (PFC) 10% Load = >90% — 10% Loading = >0.80 20% Load = >94% — 20% Loading = >0.95 50% Load = >96% — 50% Loading = >0.95 100% Load = >91% — 100% Loading = >0.95
Power Supply	Ecodesign (Part UD-PSU01-2200-AC/ Model FS2K2HS180-xx) – Platinum Power Efficiency 230VAC50/Hz — Power Factor Conditions (PFC) 10% Load = >81% — 10% Loading = >0.80 20% Load = >89% — 20% Loading = >0.90 50% Load = >93% — 50% Loading = >0.95 100% Load = >90% — 100% Loading = >0.95

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