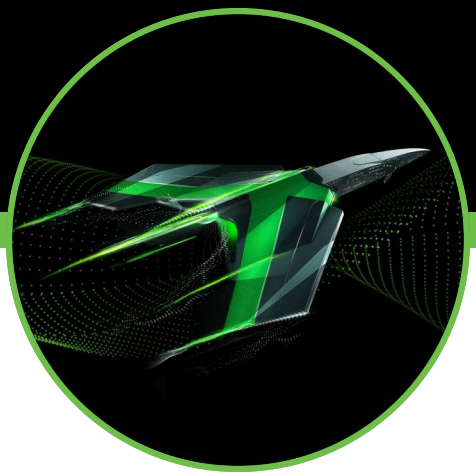
EXOS CORVAULT™

SEAGATE

DATA SHEET

Transforming Data Center Storage

# Exos CORVAULT



Seagate Exos® CORVAULT™ is a multi-petabyte capacity block storage system that is self-healing and brings five-nines availability to storage infrustructure and data center deployments. CORVAULT's breakthrough technology provides hyperscale efficiency, rapid deployment, and automatic hard drive renewal for less e-waste and operational costs.


### Product Highlights

- Effortlessly deploy petabyte storage
- Lower TCO with maximum space utilization
- The most-efficient petabyte-capacity block storage
- Minimize Infrastructure costs and reduce data center carbon footprints
- Superior data availability, durability and performance
- Seagate Autonomic Distributed Allocation Protection Technology (ADAPT)
- Seagate Autonomous Drive Regeneration (ADR)
- Breakthrough Hard Drive Technology: Seagate Mozaic 3+™ in 4U106 models

## Key Advantages

**Hyperscale Efficiency:** Lower on-premise infrastructure costs with intelligent controllers, and multi-petabyte capacity built into Exos CORVAULT.

**Sustainability and Cost Savings:** Exos CORVAULT has built-in data management, reducing your data center overhead, minimizing carbon footprint, and saving costs.

**High Capacity Enclosures:** Maximum data densities for optimal infrastructure space utilization.

**Breakthrough Hard Drive Technology:** Exos CORVAULT 4U106 uses Seagate Mozaic 3+ areal density technology, delivering more capacity for less power.

**Superior Data Availability:** Provides five-nines data availability and durability needed to promote reliable data storage with redundant hardware and distributed erasure coding.

**System Data Protection:** Protects data via Seagate Autonomic Distributed Allocation Protection Technology (ADAPT) for automatic uptime rebuilds without compromising performance, storage utilization, and availability.

**Self-Healing Hard Drive:** Autonomous Drive Regeneration (ADR) minimizes downtime, service intervention, and e-waste by renewing errant drives.

**Simplicity:** Allows simple installation, configuration, and management with GUI, CLI and Redfish API.

**Grouped Disk Performance:** Ensures continuous data access with responsive low latency performance.

**Maximum Security:** Self-encrypts data via Seagate Secure™ for maximum protection, reduced privacy concerns, and secure cryptographical erase.

# EXOS CORVAULT™


| Specifications | EXOS CORVAULT 4U106 (Mozaic 3+ ™) | |
|---|---|---|
| Standard Model Number | R4106I2000T002 | R4106I2500T002 |
| System Capacity (raw) | 2.0PB | 2.5PB |
| Limited warranty | 5 Years | 5 Years |
| System Performance | 12 GB/s sequential read throughput,<br>10 GB/s sequential write throughput | 12 GB/s sequential read throughput,<br>10 GB/s sequential write throughput |
| Device Support | Exos® self-encrypting Mozaic 3+ ™ hard drives | Exos® self-encrypting Mozaic 3+ ™ hard drives |
| System Data Protection | Seagate ADAPT erasure coding | Seagate ADAPT erasure coding |
| Disk Drive Self healing technology | Autonomous Drive Regeneration (ADR) | Autonomous Drive Regeneration (ADR) |
| Controllers | Redundant, active-active, VelosCT Controllers | Redundant, active-active, VelosCT Controllers |
| Hot-Swappable Components | Hard Drives, controllers, fans, power supplies, expander cards | Hard Drives, controllers, fans, power supplies, expander cards |
| Host I/O Ports | Four mini-SAS-3 HD ports on each controller | Four mini-SAS-3 HD ports on each controller |
| Physical | 4U: Height: 176.4mm / 6.94 in \| Width: 441mm / 17.36 in \|<br>Depth: 1139 mm / 44.84 in \| Weight: 131.5kg / 290 lb | 4U: Height: 176.4mm / 6.94 in \| Width: 441mm / 17.36 in \|<br>Depth: 1139 mm / 44.84 in \| Weight: 131.5kg / 290 lb |
| Management | | |
| Interface Types | 10/100/1000 Ethernet | 10/100/1000 Ethernet |
| Management Consoles | Web-based GUI or Command Line Interface (CLI) | Web-based GUI or Command Line Interface (CLI) |
| Management Software | Seagate Systems storage management console \| One-button configuration \| remote diagnostics \| nondisruptive updates \| | Seagate Systems storage management console \| One-button configuration \| remote diagnostics \| nondisruptive updates \| |
| Power Requirements—AC Input | | |
| Input Power Requirements | 200V-240V AC, 50Hz-60Hz | 200V-240V AC, 50Hz-60Hz |
| Power Consumption | Power supply max: 2000W<br>operational: 1200-1600W (workload dependent) | Power supply max: 2000W<br>operational: 1200-1600W (workload dependent) |
| Environmental/Temperature Ranges | | |
| Operating/Nonoperating Temperature | 5°C to 35°C (41°F to 95°F) / –40°C to +70°C (–40°F to +158°F) | 5°C to 35°C (41°F to 95°F) / –40°C to +70°C (–40°F to +158°F) |
| Operating/Nonoperating Humidity | –12°C DP/10 to 80% / –12°C DP/5 to 100% | –12°C DP/10 to 80% / –12°C DP/5 to 100% |
| Operating/Nonoperating Shock | 3.0 g, 11 ms (per axis) / 20.0 g, 7ms, 10 shock pulses, ISTA 3H | 3.0 g, 11 ms (per axis) / 20.0 g, 7ms, 10 shock pulses, ISTA 3H |
| Operating/Nonoperating Vibration | $0.18G_{rms}$, 5 Hz to 500 Hz, 30 min per axis /<br>$0.54G_{rms}$ 6Hz to 200 Hz (ISTA 3E) | $0.18G_{rms}$, 5 Hz to 500 Hz, 30 min per axis /<br>$0.54G_{rms}$ 6Hz to 200 Hz (ISTA 3E) |
| Standards/Approvals | | |
| Standard Marks/Approvals | United States, Canada, European Union (EU), Australia/New Zealand, Japan, China (PRC), Russia, Mexico, Germany, South Korea, Taiwan, India | United States, Canada, European Union (EU), Australia/New Zealand, Japan, China (PRC), Russia, Mexico, Germany, South Korea, Taiwan, India |
| Safety Certifications | UL 62368-1 \| CAN/CSA-C22.2 No.62368-1- 19 \| CE to EN 62368-1 \| CB IEC 62368-1 \| Power Supplies CCC & BIS | UL 62368-1 \| CAN/CSA-C22.2 No.62368-1- 19 \| CE to EN 62368-1 \| CB IEC 62368-1 \| Power Supplies CCC & BIS |
| Emissions (EMC) | FCC CFR 47 Part 15 Subpart B Class A \| ICES/NMB-003 Class A \| EN 55032:2015 Class A \|AS/NZS CISPR 22/CISPR 32 Class A \| VCCI Class A \| KN 32/KN 35 Class A \| CNS 15936 Class A | FCC CFR 47 Part 15 Subpart B Class A \| ICES/NMB-003 Class A \| EN 55032:2015 Class A \|AS/NZS CISPR 22/CISPR 32 Class A \| VCCI Class A \| KN 32/KN 35 Class A \| CNS 15936 Class A |
| Harmonics & Flicker | EN 61000-3-2 \| EN 61000-3-3 | EN 61000-3-2 \| EN 61000-3-3 |
| Immunity | EN 55032 \| KN 32/KN 35 | EN 55032 \| KN 32/KN 35 |
| Environmental Standards | The RoHS Directive (2011/65/EU) \| The WEEE Directive (2012/19/EU) \| The REACH Directive (EC) No. 1907/2006 and WFD Directive (EU) 2018/815 | The RoHS Directive (2011/65/EU) \| The WEEE Directive (2012/19/EU) \| The REACH Directive (EC) No. 1907/2006 and WFD Directive (EU) 2018/815 |
| Power Supply Units | Commission Regulation (EU) 2019/424 (Directive 2009/125/EC) | Commission Regulation (EU) 2019/424 (Directive 2009/125/EC) |
| Power Supply | Redundant Ecodesign (Model 700-014575-0800) – Platinum<br>Power Efficiency 230VAC50/Hz; 10% Load = >80%; 20% Load = >90%; 50% Load = >94%; 100% Load = >91%<br>Power Factor Conditions (PFC) 50% Loading = >0.90 | Redundant Ecodesign (Model 700-014575-0800) – Platinum<br>Power Efficiency 230VAC50/Hz; 10% Load = >80%; 20% Load = >90%; 50% Load = >94%; 100% Load = >91%<br>Power Factor Conditions (PFC) 50% Loading = >0.90 |
| Power Supply | Ecodesign (Model SPASGAT-02) – Titanium<br>Power Efficiency 230VAC50/Hz; 10% Load = >90%; 20% Load = >94%; 50% Load = >96%; 100% Load = >91%<br>Power Factor Conditions (PFC) 50% Loading = >0.95 | Ecodesign (Model SPASGAT-02) – Titanium<br>Power Efficiency 230VAC50/Hz; 10% Load = >90%; 20% Load = >94%; 50% Load = >96%; 100% Load = >91%<br>Power Factor Conditions (PFC) 50% Loading = >0.95 |

# EXOS™ CORVAULT™

| Specifications | EXOS CORVAULT 4U106 |
|---|---|
| Standard Model Number | R4106I212000001 \| R4106I2000S002 (EU version) |
| System Capacity (raw) | 2.1PB |
| Limited warranty | 5 Years |
| System Performance | 12 GB/s sequential read throughput,<br>10 GB/s sequential write throughput |
| Device Support | Exos® self-encrypting SAS Hard Drives |
| System Data Protection | Seagate ADAPT erasure coding |
| Disk Drive Self healing technology | Autonomous Drive Regeneration (ADR) |
| Controllers | Redundant, active-active, VelosCT Controllers |
| Hot-Swappable Components | Hard Drives, controllers, fans, power supplies, expander cards |
| Host I/O Ports | Four mini-SAS-3 HD ports on each controller |
| Physical | 4U: Height: 176.4mm / 6.94 in \| Width: 441mm / 17.36 in \|<br>Depth: 1139 mm / 44.84 in \| Weight: 131.5kg / 290 lb |
| Management | |
| Interface Types | 10/100/1000 Ethernet |
| Management Consoles | Web-based GUI or Command Line Interface (CLI) |
| Management Software | Seagate Systems storage management console \| One-button configuration \| remote diagnostics \| nondisruptive updates \| |
| Power Requirements—AC Input | |
| Input Power Requirements | 200V-240V AC, 50Hz-60Hz |
| Power Consumption | Power supply max: 2000W<br>Operational: 1400-1800W (workload dependent) |
| Environmental/Temperature Ranges | |
| Operating/Nonoperating Temperature | 5°C to 35°C (41°F to 95°F) / –40°C to +70°C (–40°F to +158°F) |
| Operating/Nonoperating Humidity | –12°C DP/10 to 80% / –12°C DP/5 to 100% |
| Operating/Nonoperating Shock | 3.0 g, 11 ms (per axis) / 20.0 g, 7ms, 10 shock pulses, ISTA 3H |
| Operating/Nonoperating Vibration | $0.18G_{rms}$, 5 Hz to 500 Hz, 30 min per axis /<br>$0.54G_{rms}$ 6Hz to 200 Hz (ISTA 3E) |
| Standards/Approvals | |
| Standard Marks/Approvals | United States, Canada, European Union (EU), Australia/New Zealand, Japan, China (PRC), Russia, Mexico, Germany, South Korea, Taiwan, India |
| Safety Certifications | UL 62368-1 \| CAN/CSA-C22.2 No.62368-1- 19 \| CE to EN 62368-1 \| CB IEC 62368-1 \| Power Supplies CCC & BIS |
| Emissions (EMC) | FCC CFR 47 Part 15 Subpart B Class A \| ICES/NMB-003 Class A \| EN 55032:2015 Class A \|AS/NZS CISPR 22/CISPR 32 Class A \| VCCI Class A \| KN 32/KN 35 Class A \| CNS 15936 Class A |
| Harmonics & Flicker | EN 61000-3-2 \| EN 61000-3-3 |
| Immunity | EN 55032 \| KN 32/KN 35 |
| Environmental Standards | The RoHS Directive (2011/65/EU) \| The WEEE Directive (2012/19/EU) \| The REACH Directive (EC) No. 1907/2006 and WFD Directive (EU) 2018/815 |
| Power Supply Units | Commission Regulation (EU) 2019/424 (Directive 2009/125/EC) |
| Power Supply | Redundant Ecodesign (Model 700-014575-0800) – Platinum<br>Power Efficiency 230VAC50/Hz; 10% Load = >80%; 20% Load = >90%; 50% Load = >94%; 100% Load = >91%<br>Power Factor Conditions (PFC) 50% Loading = >0.90 |
| Power Supply | Ecodesign (Model SPASGAT-02) – Titanium<br>Power Efficiency 230VAC50/Hz; 10% Load = >90%; 20% Load = >94%; 50% Load = >96%; 100% Load = >91%<br>Power Factor Conditions (PFC) 50% Loading = >0.95 |

# EXOS CORVAULT™

| Specifications | EXOS CORVAULT 5U84 |
|---|---|
| Standard Model Number | R5U84I1500S001 |
| System Capacity (raw) | 1.68PB |
| Limited warranty | 5 Years |
| System Performance | 12 GB/s sequential read throughput, 10 GB/s sequential write throughput |
| Device Support | Exos® self-encrypting SAS HDDs |
| System Data Protection | Seagate ADAPT erasure coding |
| Disk Drive Self healing technology | Autonomous Drive Regeneration (ADR) |
| Controllers | Redundant, active-active, VelosCT Controllers |
| Hot-Swappable Components | Hard Drives, controllers, fans, power supplies, expander cards |
| Host I/O Ports | Four mini-SAS-3 HD ports on each controller |
| Physical | 5U: Height: 222.3mm / 8.75 in \| Width: 444.5mm / 17.5 in \|<br>Depth: 981mm / 38.63 in \| Weight: 135kg / 298 lb |
| Management | |
| Interface Types | 10/100/1000 Ethernet |
| Management Consoles | Web-based GUI or Command Line Interface (CLI) |
| Management Software | Seagate Systems storage management console \|One-button configuration \| remote diagnostics \| nondisruptive updates \| |
| Power Requirements—AC Input | |
| Input Power Requirements | 200V-240V AC, 50Hz-60Hz |
| Power Consumption | Power supply max: 2200W<br>operational: 1200-1400W (workload dependent) |
| Environmental/Temperature Ranges | |
| Operating/Nonoperating Temperature | 5°C to 35°C (41°F to 95°F) / –40°C to +70°C (–40°F to +158°F) |
| Operating/Nonoperating Humidity | –12°C DP/10 to 80% / –12°C DP/5 to 100% |
| Operating/Nonoperating Shock | 3.0 g, 11 ms (per axis) / 20.0 g, 7ms, 10 shock pulses OR ISTA 3H |
| Operating/Nonoperating Vibration | 0.18G$_{rms}$, 5 Hz to 500 Hz, 30 min per axis / 0.54G $_{rms}$ 6Hz to 200 Hz (ISTA 3E) |
| Standards/Approvals | |
| Standard Marks/Approvals | United States, Canada, European Union (EU), Australia/New Zealand, Japan, China (PRC), Russia, Mexico, Germany, South Korea, Taiwan, India |
| Safety Certifications | UL 62368-1 \| CAN/CSA-C22.2 No.62368-1- 19 \| CE to EN 62368-1 \| CB IEC 62368-1 \| Power Supplies CCC & BIS |
| Emissions (EMC) | FCC CFR 47 Part 15 Subpart B Class A \| ICES/NMB-003 Class A \| EN 55032:2015 Class A \|AS/NZS CISPR 22/CISPR 32 Class A \| VCCI Class A \| KN 32/KN 35 Class A \| CNS 15936 Class A |
| Harmonics & Flicker | EN 61000-3-2 \| EN 61000-3-3 |
| Immunity | EN 55032 \| KN 32/KN 35 |
| Environmental Standards | The RoHS Directive (2011/65/EU) \| The WEEE Directive (2012/19/EU) \| The REACH Directive (EC) No. 1907/2006 and WFD Directive (EU) 2018/815 |
| Power Supply Units | Commission Regulation (EU) 2019/424 (Directive 2009/125/EC) |
| Power Supply | Redundant Ecodesign (Model 700-014575-0800) – Platinum<br>Power Efficiency 230VAC50/Hz; 10% Load = >80%; 20% Load = >90%; 50% Load = >94%; 100% Load = >91%<br>Power Factor Conditions (PFC) 50% Loading = >0.90 |
| Power Supply | Ecodesign (Model SPASGAT-02) – Titanium<br>Power Efficiency 230VAC50/Hz; 10% Load = >90%; 20% Load = >94%; 50% Load = >96%; 100% Load = >91%<br>Power Factor Conditions (PFC) 50% Loading = >0.95 |

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