



Features

- Up to 102 Ultrastar HDDs (SAS or SATA)
- Up to 2.65PB¹ of raw storage² in 4 OUs
- Designed to meet the ORv3 specification
- Patented IsoVibe technology ensures maximum performance even in heavy workloads
- Improved cooling from innovative ArcticFlow technology
- Together, IsoVibe and ArcticFlow contribute to a 62% reduction in drive returns³
- Dual-port SAS for high availability or single-port SATA for cloud-like applications and economics
- Up to 8x 24Gb/s SAS-4 host connections
- Enterprise-grade redundant and hot-swappable drives, IO Modules, HEMs, Redriver Modules, and fans
- Rack-mounted top cover for quick and easy service

Ultrastar® Data102 3000 ORv3 Hybrid Storage Platform

The Next Generation Platform for Software-Defined Storage Designed for High Density and Flexibility

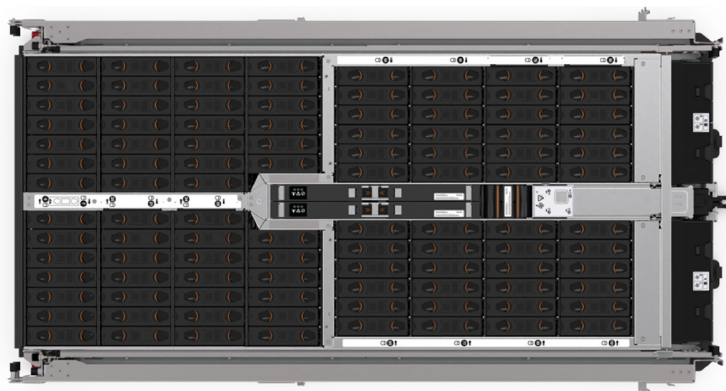
The Ultrastar Data102 3000 ORv3 Hybrid Storage Platform redefines what's possible in modern storage infrastructure. As a foundational building block for disaggregated and software-defined storage (SDS) architectures, it delivers massive capacity without sacrificing flexibility — empowering organizations to strike the right balance between performance and cost across all workloads. Packed with up to 2.65PB of raw storage in a compact, efficient form factor, it is purpose-built for the demands of scalable, data-intensive environments. In alignment with the broader Open Compute Project (OCP) initiative, the Data102 3000 ORv3 is designed to meet the Open Rack v3 (ORv3) specification, which focuses on rack design and power supply regulation. This future-ready solution delivers improved power efficiency, better airflow, and enhanced system manageability over the prior-generation design.

The Storage Platform for Cloud, Neo-Cloud, and HPC

Whether you're scaling a hyperscale cloud, building next-generation AI infrastructure, or powering demanding HPC workloads, the Ultrastar Data102 3000 ORv3 delivers. Designed for cloud service providers, emerging neo-cloud and AI infrastructure builders, it provides dense, shared HDD storage optimized for data growth at scale. As AI workloads demand ever-larger training datasets and model repositories, flexible drive configurations let you dial in the right mix of capacity, performance, and cost. With 24Gb/s SAS 4 host connectivity, you get the bandwidth to keep every system fast, responsive, and efficient — no matter how large your environment grows.

Innovative Cooling. Improved Reliability.

Not all dense storage platforms are created equal. The Ultrastar Data102 3000 ORv3 is built to perform reliably at scale. Patented IsoVibe™ vibration isolation technology actively counteracts drive-induced vibration to protect performance under load, while ArcticFlow™ thermal zoning channels airflow precisely through the center of the chassis for targeted, highly effective cooling. Together, these breakthrough technologies drive up to a 62% reduction in HDD returns³ — meaning fewer failures, lower operational costs, and greater peace of mind. Backed by a five-year limited warranty, the Data102 3000 ORv3 is a platform built for the long haul.



Ultrastar Data102 3000 ORv3 Storage Platform



IsoVibe

IsoVibe Patented Vibration Isolation Technology

Precision cuts in the baseboard create a suspension system for the drives within the chassis, isolating them from transmitted vibration. The result is consistent performance maintained across every drive — even when the entire system is working at full capacity.



ArcticFlow

Innovative ArcticFlow Thermal Zone Cooling Technology

By introducing cool air directly into the center of the chassis, drives operate at lower and more consistent temperatures than conventional systems. This delivers lower fan speeds, reduced vibration, lower power consumption, quieter operation, and ultimately, higher reliability.



Resource Manager

Western Digital Resource Manager

A GUI-based tool that enables real-time monitoring and management of the platform through a consolidated dashboard displaying the most critical system information. Additional views provide platform configuration, health monitoring, and maintenance capabilities.

Specifications

Max. Drives	102x 3.5 in. drive bays
Available Drive Capacities	HDD up to 26TB CMR
Drive Interface	12Gb/s SAS 6Gb/s SATA
Host Interface	Dual, redundant HEMs 8x MiniSAS HD ports (4x per RDVR) 2x RJ45 OOBM ports (1x per RDVR)
Weight	Product without drives: 58.1 kg / 128 lbs. Product with 102 HDDs: 128.3 kg / 279 lbs.
LED Indicators	Front/Rear: power, locate, fault RDVR Front: SAS link & fault, mgmt. link & activity Drive: Activity, Fault
Physical Dimensions	Height: 175 mm / 6.89 in. Width: 540.9 mm / 21.26 in. Depth: 1090.7 mm / 41.11 in. Depth rack adapters & power cable tray: 1108.8 mm / 43.6 in.
Management	SCSI Enclosure Services Redfish (out of band, via RJ45)
Power	48V DC, 1600W
Cooling	4 main enclosure fans front-to-rear system cooling with zero-loss backflow prevention 1 IO module fan Single PSU with built-in fan
Environmental	Operating Temperature: 5°C to 35°C Non-op Temperature: -40 to 70°C Humidity: 5 to 85% relative humidity Operating Altitude: -300m to 3048m / -984 ft to 10,000 ft Sound Power: < 7.2Bels @ 23±2°C
Serviceability	Hot-swappable IOMs, HEMs, RDVRs, fans, and HDDs
Warranty⁴	5 Year Limited Warranty

¹ One terabyte (TB) is equal to one trillion bytes and one petabyte (PB) is equal to 1,000 TB. Actual user capacity may be less due to operating environment.

² Ultrastar Data102 3000 ORv3 Platform maximum raw capacity of 2.65PB using 26TB CMR HDDs

³ Based on observed and projected drive return data compared to generation without features. Does not change product specifications or constitute a warranty.

⁴ Please see product warranty terms and conditions for details at: https://documents.westerndigital.com/content/dam/doc-library/en_us/assets/public/western-digital/collateral/warranty/warranty-western-digital-platform-products.pdf



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Certifications & Standards

Country Certifications	Australia/New Zealand (RCM) European Union (CE) Great Britain (UKCA) Israel (SII) Japan (VCCI) Korea (KC) North America: Canada, USA (NRTL) South Africa (LoA) Taiwan (BSMI)
Safety	CAN/CSA-C22.2 No. 62368-1, Second Edition CE – Low Voltage Directive CNS 15598-1 IEC 62368-1 IS 13252-2010
EMC Class A Emissions	AS/NZS CISPR 32 CNS 15936-1 CE – EMC Directive 2014/30/EU CISPR 32 Edition 6 FCC CFR 47 Part 15, Subpart B ICES-003, Issue 7 IEC 55032 KS C 9832 TR CU 020/2011 VCCI V-3
EMC Class A Immunity	IEC 55035 IEC 61000-3-2 Harmonic Current Emissions IEC 61000-4-2 ESD IEC 61000-4-3 Radiated Immunity IEC 61000-4-6 RF Common Mode IEC 61000-4-8 Power Frequency Magnetic Field KS C 9835
Eco-Design	Commission Regulation (EU) 2019/424
Environmental Standards	EU RoHS Directive (2011/65/EU) EU WEEE Directive (2012/19/EU) EU REACH Regulation (EC) No 1907/2006 EU POPs Regulation (EU) 2019/1021

How to Read Model Number

Example: Ultrastar Data102 **3224** 2652TB, 3rd Generation with Dual IOM SAS, 4x HEM 24G, and 26TB CMR

1st digit = JBOD Generation
3: Ultrastar Data102 3rd Generation

2nd digit = Interface
1: Single IOM SATA
2: Dual IOM SAS

3rd digit = Connectivity
2: 4x HEM 24G

4th digit = HDD Generation
1: Ultrastar DC HC580 CMR
2: Ultrastar DC HC680 SMR
3: Ultrastar DC HC555 CMR
4: Ultrastar DC HC590 CMR
5: Ultrastar DC HC690 SMR