EMC ATMOS HARDWARE CONFIGURATIONS

EMC® Atmos™ is supported in three hardware configurations: WS2-120, WS2-240, and WS2-360. The WS2-120 and WS2-240 are designed to provide a higher mix of compute resources, while the WS2-360 is optimized to provide the largest amount of storage capacity.

WS2-120

WS2-240

WS2-360

Specifications

	WS2-120 Configuration	WS2-240 Configuration	WS2-360 Configuration
Architecture	• Standard 40U cabinet with one 3U disk enclosure per shelf • Fully accessible and customer-serviceable components • Redundant power, cooling, and cabling	• High-density design with no special environment required • 44U rack with Harmonic drawers holding two 3U disk enclosures per shelf • Upgrade servers and disks independently • Simple, integrated cable management • Conventional front-to-back cooling • Fully accessible and customer-serviceable components • Redundant power, cooling, and cabling	
Configuration	Minimum: 4 Nodes = 4 servers + 4 disk enclosures Maximum: 8 Nodes = 8 servers + 8 disk enclosures Node server-to-disk ratio: 1:15	Minimum: 4 Nodes = 4 servers + 4 disk enclosures Maximum: 16 Nodes = 16 servers + 16 disk enclosures Node server to disk ratio: 1:15	Minimum: 4 Nodes = 4 servers + 16 disk enclosures Maximum: 6 Nodes = 6 servers + 24 disk enclosures Node server to disk ratio: 1:60
Disk Types	1 TB 7200 RPM 2 TB 7200 RPM	1 TB 7200 RPM 2 TB 7200 RPM	1 TB 7200 RPM 2 TB 7200 RPM
Size	Minimum: 60 x 1 TB disks = 60 TB 60 x 2 TB disks = 120 TB Maximum: 120 x 1 TB disks = 120 TB 120 x 2 TB disks = 240 TB	Minimum: 60 x 1 TB disks = 60 TB 60 x 2 TB disks = 120 TB Maximum: 240 x 1 TB disks = 240 TB 240 x 2 TB disks = 480 TB	Minimum: 240 x 1 TB disks = 240 TB 240 x 2 TB disks = 480 TB Maximum: 360 x 1TB disks = 360 TB 360 x 2TB disks = 720 TB
Expansion Options	2 nodes per expansion = 2 servers and 2 disk enclosures (30 disks)	2 nodes per expansion = 2 servers and 2 disk enclosures (30 disks)	2 nodes per expansion = 2 servers and 8 disk enclosures (120 disks)
Connectivity	Network: Gigabit Ethernet connectivity between servers and customer's network Disk: SAS wide port (4 lanes) cable connections between servers and disk enclosures		
Protocol Support	TCP/IP		
Dimensions	Height: 75 in/190.8 cm Width: 24 in/60.96 cm Depth: 39 in/99.2 cm Weight: 1,356 lbs	Height: 82.44 in/209.4 cm Width: 24 in/60.96 cm Depth: 43 in/109.2 cm Weight: 2,282 lbs	Height: 82.44 in/209.4 cm Width: 24 in/60.96 cm Depth: 43 in/109.2 cm Weight: 2,548 lbs

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	WS2-120 Configuration	WS2-240 Configuration	WS2-360 Configuration
Power Specifications	1 TB 7200 RPM disks: Max Power: 4,880 watts Max Heatload: 16,655 BTU/hr	1 TB 7200 RPM disks: Max Power: 10,020 watts Max Heatload: 34,198 BTU/hr	1 TB 7200 RPM disks: Max Power: 10,290 watts Max Heatload: 35,120 BTU/hr
	2 TB 7200 RPM disks: Max Power: 4,880 Watts Max Heatload: 16,655 BTU/hr	2 TB 7200 RPM disks: Max Power: 10,020 Watts Max Heatload: 34,198 BTU/hr	2 TB 7200 RPM disks: Max Power: 10,290 Watts Max Heatload: 35,120 BTU/hr
	Connection: two single phase, L6-30 (redundant power	Connection: six single phase, L6-30 (redundant power)	Connection: six single phase, L6-30 (redundant power)
	Input Voltage (VAC): 200–240		
	Circuit Breaker (A) max. per AC power source: 30A/PDU		
	Frequency (Hz): 60 (North America), 50–60 (International)		
Environmental Specifications	Operating Temperature (°F/°C): 41–90/5-32		
	Max. Altitude: 7,500 ft/ 2,286 m @ 90°F/32°C		
	Relative Humidity: 20–80% non-condensing		
	Raised Floor: Not required.		
Regulatory and Agency Certifications	The certifications below refer to the individual shelf units that make up the hardware system: CE UL and c-UL Listing/ to UL 60950-1 or CSA and us-CSA Certification to CSA 22.2 No. 60950-1 (safety USA and Canada) TUV License to EN 60950-1 (safety-Europe) TUV CB Certificate to IEC 60950-1 (safety-International) FCC Part 1 5B Class A (US) Industry Canada ICES-003 class A (Canada) CISPR22:1997 3rd Edition Class A (International) EN55022:1998 (Europe) EN55024:1998 (Europe) EN61000-3-2 (Europe) EN61000-3-3 (Europe) VCCI Approval to V.3 (Japan) BSMI Approval to CNS13438 (Taiwan) ACA Ctick Approval to AS/NZS CISPR22 (Australia) MIC (Korea) GOST (Russia) IRAM (Argentina)		
Warranty and Support Options	**Enhanced three-year warranty and support:** 24x7 remote technical support, dial-home and proactive responses, customer installation of replacement parts, and optional Extended Support options available. **Optional warranty and support:** Premium: 24x7 remote and onsite technical support with four-hour response, Critical escalation management, dial-home and proactive responses, root-cause analysis, and optional EMC installation of replacement parts.		

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