



Site Survey

Ultrastar® Serv60+8

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Overview

This survey is intended to assist Western Digital and users with the Ultrastar Serv60+8 to determine whether the user's site is prepared to receive an Ultrastar Serv60+8.

The facility in which an Ultrastar Serv60+8 will be deployed should meet Uptime Institute Tier 3 specifications. It must provide contiguous rack space, adequate site power for the full capacity power density per appliance, adequate HVAC, and it must be accessible on a 24/7 schedule in support of SLA commitments. Due to the lights-out nature of the solution, the facility must provide equipment staging (up to 30 days) and provide a protocol for accepting shipment on behalf of the Solution Provider. The appliance is designed to direct all exhaust towards the rear, and blanking plates are installed to cover open space in between components.

The following tables provide summaries of specifications relevant to the Ultrastar Serv60+8, and relevant specs are also noted in their respective content categories. The specifications are also provided in context throughout the survey for convenience.

Specification Summary

Environmental Specifications

| Specification | Non-Operational | Operational |
|----------------------------|--------------------------|-------------------------|
| Temperature | -40°C to 70°C | 5°C to 35°C |
| Temperature Gradient | 30°C per hour max | 20°C per hour max |
| Temperature De-rating | 1°C per 300m above 3000m | 1°C per 125m above 950m |
| Relative Humidity | 8-90% Non-Condensing | 8-90% Non-Condensing |
| Relative Humidity Gradient | 30% per hour maximum | 30% per hour maximum |

Electrical Specifications

| Specification | Value |
|---------------------------|------------------|
| Max Power Consumption | ~2000W |
| Typical Power Consumption | ~1800W |
| Input Voltage | 200V - 240V |
| PSU Connector Type | C14 |
| PSU Connector Type | 80 PLUS Platinum |

Note: Max and Typical Power Consumption values represent the output power to the system. Input power will vary depending on the PSU efficiency and load sharing between PSUs

Mechanical Specifications

| Specification | Non-Operational | Operational |
|--------------------------------|--|---|
| Shock | 10G, 0 - peak, 11ms half sine; 3 positive and 3 negative pulses in each axis Shock | 5G, 0 - peak, 11ms half sine; 3 positive and 3 negative pulses in each axis - minimum 6 seconds between shocks to allow for read/write recovery |
| Vibration | 0.75G, 0 - peak swept sine; 5 - 500Hz; 1 complete sweep @ 1/2 octave per minute | 0.10G, 0 - peak swept sine; 5 - 500Hz; 1 complete sweep @ 1/2 octave per minute |
| Weight | 95.25kg / 210 lbs. | |
| Dimensions w/CMA | 447mm x 1197.2mm x 175mm / 17.6in. x 47.13in. x 6.89in. | |
| Dimensions without CMA | 1026mm / 40.39in. | |
| Required Rack Width | 450mm w/ 465mm ± 1.5mm nominal hole spacing. See EIA-310 Rack Standard | |
| Required Rack Depth | 1200mm (47.24 in.) of usable rack space, frame to frame | |
| Rack Units (U) | 4U | |
| Adjustable Vertical Rail Range | 32 in. - 36 in. | |

Performance Specifications

| Specification | Value |
|-------------------------------|--|
| Number of Device Slots | 60 HDDs and 8 SSDs |
| Data Transfer Rates | 12Gbps SAS / 6Gbps SATA |
| Max Raw Data Storage Capacity | 840TB using 14TB HDDs and 61.44 TB using SSDs totaling 901.4TB |

Delivery Questions

Customer Information

This section contains questions related to the organization receiving an Ultrastar Serv60+8 enclosure.

Date

Organization Name

Contact Name

Phone

Work

Mobile

Email

Address

Notes

Relevant Specs

N/A

Preparation for Delivery

This section contains questions that will be used for Western Digital to prepare for the delivery of an Ultrastar Serv60+8 enclosure.

What are the hours the facility is open for delivery?

Are appointments required?

Yes

No

Are there any security or building access requirements?

Yes

No

On what floor in the building will the equipment be installed?

If equipment is not going on the first floor, is there an elevator?

Yes

No

Note: For elevator specifics, please see the Elevator section below.

Customer P.O.

Delivery Address

Is the path from the loading dock to the computer room or server room robust enough to support the weight of the storage enclosure?

Yes

No

Does the facility have proper floor covering for delivery?

Yes

No

Dock Delivery

| | | |
|--|-----|-----|
| Is the dock large enough for a semitrailer? | Yes | No |
| What side of the building is the dock on? | | |
| What is the street name if different than company address? | | |
| Is a forklift required to reach the dock? | Yes | No |
| What are the dimensions of the loading dock door(s)? | in. | mm. |

Street Delivery

| | | |
|---|-----|-----|
| What side of the building is the access door on? | | |
| What is the street name, if different than company address? | | |
| What is the height and width of access door? | in. | mm. |
| If special permits are required, please list the type and agency obtained from. | | |

Elevator

| | | |
|--|------|-----|
| What is the weight capacity of the elevator? | lbs. | kg. |
| What is the depth of the elevator? | in. | mm. |
| What is the height of the elevator? | in. | mm. |
| What is the width of the elevator? | in. | mm. |

Stairs

| | | |
|---------------------------------------|-----|-----|
| How many flights of stairs are there? | | |
| What is the width of the stairwells? | in. | mm. |

Installation Space

| | | |
|---|-----|----|
| Is there a delivery/unpacking/staging area? | Yes | No |
|---|-----|----|

| | | |
|---|-----|-----|
| Is there a raised floor or are there any thresholds of concern? | Yes | No |
| If there is a raised floor, how deep is it? | in. | mm. |

What sort of equipment maneuvering is required for installation (ramps, spreader plates, etc.)?

| | | |
|--|-----|----|
| Are there special equipment needs required to place the equipment in the computer room? If so, please explain. | Yes | No |
|--|-----|----|

| | | |
|---|------|-----|
| What is the max floor loading weight per square foot? | lbs. | kg. |
|---|------|-----|

Site Questions

Site Network Configuration

This section is inquiring about the configuration of the network settings in the Ultrastar Serv60+8 enclosure that can be set by Western Digital prior to delivery.

| | | |
|--|-----|------|
| Should the SSL be enabled? | Yes | No |
| What is the SSL Port? | | |
| What is the SSL Certificate? | | None |
| What country is the system being deployed in? | | |
| What city is the system being deployed in? | | |
| What is the address of the configuration? | | |
| What is the timezone where the system will be installed? | | |
| What is the IP Address or Host name of the NTP? | | |
| What is the IP Address or Host name of the SMTP? | | |
| If the SMTP server requires user authentication, what is the username? | | |
| If the SMTP server requires a user password, what is the password? | | |
| What is the Administrators Email to send system alerts? | | |
| What is the IP Address or Host name of the SMTP Trap server? | | |
| What is the IP Address or Host name of the SNMP Trap port? | | |
| What is the SNMP Trap server? | | |

Facilities

| | | |
|--|-----|-----|
| Will the enclosure be unpacked in a different location than it is installed? | Yes | No |
| Is the floor or raised floor capable of supporting the weight of the enclosure? | Yes | No |
| Will installation technicians be required to move the packed enclosure through the facility? | Yes | No |
| Does the enclosure need to be unpacked before entering the datacenter? | Yes | No |
| Does the datacenter have the proper equipment and personnel to move the unpacked enclosure to the installation location? | Yes | No |
| What is the minimum door height and width along the path to the installation space? | in. | mm. |

Notes

Relevant Specs

Enclosure Weight: 95.25 kg / 210 lbs.

Server Room

| | | |
|---|-----|----|
| Is there adequate space for an installation? | Yes | No |
| Is access to the site or server room restricted? | Yes | No |
| Are customer supplied network cables available and of the proper type? | Yes | No |
| Are rack anchors and stabilizers located in the space in which the enclosure will be installed? | Yes | No |

Notes

Relevant Specs

Enclosure Dimensions:
W: 447.2 mm x **L:** 1048.5 mm x **H:** 175 mm /
W: 17.6 in. x **L:** 41.3in. x **H:** 6.89 in.

Power and Lighting

| | | |
|---|-----|----|
| Are lighting levels adequate for maintenance? | Yes | No |
| Are A/C outlets available for servicing needs (e.g. vacuuming)? | Yes | No |
| Do the input power specifications correspond to equipment specifications? | Yes | No |
| Is power conditioning equipment installed? | Yes | No |
| Is there a dedicated branch circuit for equipment? | Yes | No |
| What type of power connector does your site require? | | |

Notes

Relevant Specs

Power Requirements:

Typical: ~1800W

Max: ~2000W

Note: Max and Typical Power Consumption values represent the output power to the system. Input power will vary depending on the PSU efficiency and load sharing between PSUs.

Safety

| | | |
|--|-----|----|
| Is there an emergency power shut-off switch? | Yes | No |
| Is a fire protection appliance installed in the server room? | Yes | No |
| Is antistatic flooring installed? | Yes | No |
| Is power conditioning equipment installed? | Yes | No |
| Do any equipment servicing hazards exist? | Yes | No |

Note: If any, please list them in the Notes section below.

Notes

Relevant Specs

N/A

Cooling

| | | |
|--|-----|----|
| Can the appliance operating temperature be maintained? | Yes | No |
| Can temperature changes be maintained according to equipment specifications? | Yes | No |
| Can humidity levels be maintained? | Yes | No |
| Are air conditioning filters installed and clean? | Yes | No |

Notes

Relevant Specs

Operating Temperature: 5°C to 35°C
Temperature Gradient: 20°C per hour max
Temperature Derating: 1°C per 125m above 950m
Relative Humidity: 8-90% Non-Condensing
Humidity Gradient: 30% per hour maximum