APPLICATION FOR HCAI SPECIAL SEISMIC CERTIFICATION PREAPPROVAL (OSP)

OFFICE USE ONLY

APPLICATION #: OSP-0101

HCAI Special Seismic Certification Preapproval (OSP)

Type: ☐ New ☒ Renewal

Manufacturer Information

Manufacturer: Vertiv Corporation

Manufacturer's Technical Representative: Julian Freeman

Mailing Address: 975 Pittsburgh Drive, Delaware, OH 43015

Telephone: (740) 833-8910 Email: Julian.Freeman@vertiv.com

Product Information

Product Name: Liebert GXT4 and APS Single Phase UPS

Product Model Number(s): Liebert GXT4 UPS, Liebert APS UPS, APS Battery Cabinet, MPH2-PDU, Liebert MicroPod

Product Category: UPS and Batteries

Product Sub-Category: UPS

General Description: Rack mounted and base mounted UPS, single phase power.

Rack mounted units may only be installed in the same model rack, as tested, and cannot exceed the maximum wt. or C.G. as shown on the UUT Sheets. See rack reference sheet at end of OSP.

Mounting Description: Rack mounted - rigid and Base mounted - rigid

Tested Seismic Enhancements: Seismic enhancements made to the test units and/or modifications required to address anomalies during the tests shall be incorporated into the production units.

Applicant Information

Applicant Company Name: TRU Compliance, by Structural Integrity Associates, Inc

Contact Person: Victoria Ahrens

Mailing Address: 233 SW Wilson Ave, Suite 101, Bend, OR 97702

Telephone: (541) 292-5820 Email: vahrens@structint.com

Title:

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BY: Mohammad Karim
DATE: 09/04/2026
CALIFORNIA BUILDING CODE 2025

California Licensed Structural Engineer Responsible for the Engineering and Test Report(s)

Company Name: STRUCTURAL INTEGRITY ASSOCIATES, INC.

Name: LACHEZAR HANDZHIYSKI California License Number: S6515

Mailing Address: 5215 Hellyer Avenue, Suite 210, San Jose, CA 95138

Telephone: (669) 437-0200 Email: Lhandzhiyski@StructInt.com

Certification Method

☐ GR-63-Core ☒ ICC-ES AC156 ☐ IEEE 344 ☐ IEEE 693 ☐ NEBS 3

☐ Other (Please Specify):

Testing Laboratory

Company Name: CLARK TESTING LABORATORY, INC.

Contact Person: Devon Lohr

Mailing Address: 1801 Route 51, Jefferson Hills PA 15025

Telephone: (412) 387-1001 Email: dlohr@clarktesting.com

Company Name: QUALTECH/CURTISS WRIGHT/TRENTEC

Contact Person: Jerry Newberry

Mailing Address: 4600 East Tech Drive, Cincinnati OH 45245

Telephone: (513) 528-7900 Email: Jnewberry@curtisswright.com

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Seismic Parameters

Certified Response Spectral Acceleration Factors:(F_p/W_p)

Horizontal	(A Flx-H), g=	3.20	(A Rig-H), g=	2.15
Vertical	(A Flx-V), g=	1.67	(A Rig-V), g=	0.67

S_{DS} (Design spectral response acceleration at short period, g) = 2.00 (z/h = 1.0); 2.50 (z/h = 0.0)

Hf (Force amplification height factor) = 3.5 (z/h = 1.0); 1.0 (z/h = 0.0)

Ru (Structure ductility redution factor) = 1.3 (z/h = 1.0); 1.0 (z/h = 0.0)

I_p (Importance factor) = 1.5

z/h (Height ratio factor) = 0 and 1

HCAI Approval (For Office Use Only) - Approval Expires on 09/06/2032

Date: 9/4/2026

Name: Mohammad Karim Title: Supervisor, Health Facilities

Condition of Approval (if applicable):

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SPECIAL SEISMIC CERTIFICATION
CERTIFIED COMPONENT MATRIX

1900374-CR-001-R4

TRU COMPLIANCE

Manufacturer: Vertiv Corporation
Model Line: Liebert GXT4 and APS Single Phase UPS

TABLE 1

Certified Product Construction Summary:
Carbon Steel Housing

Certified Options Summary:
n/a

Mounting Configuration:
Base mounted - rigid in Two Post Rack (See UUT Summaries for directions on installation)
Note: Installed mounting must be of similar configuration and equivalent strength and stiffness to those tested.

Building Code: CBC 2025 ***Seismic Certification Limits:*** S_{DS}= *2.00 g z/h=1.0* R_μ = *1.3* H_f = *3.5* I_P= *1.5*
S_{DS}= *2.50 g z/h=0.0* R_μ = *1.0* H_f = *1.0*

Model Line	Model[1,2,3]	Dimensions (in)			Weight (lbs.)	Notes	UUT
		Depth	Width	Height			
Liebert APS AS5 Series UPS - 10 Bay	AS5	32.0	17.3	27.5	531		21B
Liebert Rack MPH2 Rack PDU	MPHB6224	10.0	19.0	3.5	23		23
	MPHB2341	10.5	19.0	1.8	8		24
Libert Rack Mounted MicroPod	MP2-115A	3.0	15.0	3.5	7		28

Notes:
1. *See UUT Summary for center of gravity height limit per component.*
2. *Maximum center of gravity height of configured rack: 36" for MPH and MP2*
3. *Maximum center of gravity height of configured rack: 38" for AS5*

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SPECIAL SEISMIC CERTIFICATION
CERTIFIED COMPONENT MATRIX

1900374-CR-001-R4

TRU COMPLIANCE

Manufacturer: Vertiv Corporation
Model Line: Liebert GXT4 and APS Single Phase UPS

TABLE 2

Certified Product Construction Summary:
Carbon Steel Housing

Certified Options Summary:
Transformer Free Model

Mounting Configuration:
Base mounted - rigid (See UUT Summaries for directions on installation)
Note: Installed mounting must be of similar configuration and equivalent strength and stiffness to those tested.

Building Code: CBC 2025 ***Seismic Certification Limits:*** S_{DS}= *2.00 g z/h=1.0* R_μ = *1.3* H_f = *3.5* I_P= *1.5*
S_{DS}= *2.50 g z/h=0.0* R_μ = *1.0* H_f = *1.0*

Model Line	Model	Dimensions (in)			Weight (lbs.)	Notes	UUT
		Depth	Width	Height			
Liebert APS AS5 Series UPS - 10 Bay	AS5	32.0	17.3	27.5	531	*Input AC - 200/208/220/230/240V; Single Phase Transformer Free*	21A
Liebert APS AS6 Series UPS - 16 Bay	AS6	33.5	17.3	38.1	838	*Input AC - 200/208/220/230/240V; Single Phase Transformer Free*	22
Liebert APS External Battery Cabinet - 16 Bay	EBC	28.0	17.3	38.1	755		20
Liebert GXT4 UPS	GXT4-10000RT208-GE	27.5	14.4	21.0	268		29

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SPECIAL SEISMIC CERTIFICATION
CERTIFIED SUBCOMPONENT MATRIX

1900374-CR-001-R4

TRU COMPLIANCE

Manufacturer:	Vertiv Corporation	***Table Description:*** Power Distribution Boxes	**TABLE 3**
Model Line:	Liebert GXT4 and APS Single Phase UPS		

Building Code: CBC 2025 ***Seismic Certification Limits:*** S_{DS} = 2.00 g z/h=1.0 R_μ = 1.3 H_f = 3.5 I_P = 1.5

S_{DS} = 2.50 g z/h=0.0 R_μ = 1.0 H_f = 1.0

Model Line (Manufacturer)	Model	Dimension (in)			Weight (lbs.)	Material	Notes	UUT
		Depth	Width	Height				
Liebert Power Distrubtion Boxes for 8000VA & 10000VA Models (Vertiv)	PD2-104	1.0	7.4	5.7	6.6	Carbon Steel Casing		21A, 21B, 22

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UNIT UNDER TEST (UUT) SUMMARY SHEET

1900374-CR-001-R4

Manufacturer: Vertiv Corporation

Model Line: Liebert GXT4 and APS Single Phase UPS

UUT	Unit Description (mounting)	Report Number (UUT#)	Testing Lab	Tested	ISO 17025?	S_{DS}	z/h	R_μ	H_f	I_P
1-19	NOT USED									
20	Liebert APS EBC (base mounted - rigid)	Q18601.0, Rev.0 (UUT20b)	QualTech-NP by Curtiss-Wright	19-Jan. 2018	No[1]	2.11 3.15	1.0 0.0	1.3 1.0	3.5 1.0	1.5
21A	Liebert APS AS5 Series (base mounted - rigid)	Q18601.0, Rev.0 (UUT21, test run 3)	QualTech-NP by Curtiss-Wright	12-Jan. 2018	No[1]	2.43 2.64	1.0 0.0	1.3 1.0	3.5 1.0	1.5
21B	Liebert APS AS5 Series (2-Post Configuration)	Q18601.0, Rev.0 (UUT21, test run 1)	QualTech-NP by Curtiss-Wright	19-Jan. 2018	No[1]	2.09 3.25	1.0 0.0	1.3 1.0	3.5 1.0	1.5
22	AS6A1RCJGNNX223 (base mounted - rigid)	Q18601.0, Rev.0 (UUT22b)	QualTech-NP by Curtiss-Wright	19-Jan. 2018	No[1]	2.11 3.15	1.0 0.0	1.3 1.0	3.5 1.0	1.5
23	MPHB6224 (2-Post Configuration)	Q18601.0, Rev.0 (UUT23)	QualTech-NP by Curtiss-Wright	12-Jan. 2018	No[1]	2.33 2.75	1.0 0.0	1.3 1.0	3.5 1.0	1.5
24	MPHB2341 (2-Post Configuration)	Q18601.0, Rev.0 (UUT24)	QualTech-NP by Curtiss-Wright	12-Jan. 2018	No[1]	2.33 2.75	1.0 0.0	1.3 1.0	3.5 1.0	1.5
25-27	NOT USED									
28	MP2-115A (2-Post Configuration)	Q18601.0, Rev.0 (UUT28)	QualTech-NP by Curtiss-Wright	12-Jan. 2018	No[1]	2.33 2.75	1.0 0.0	1.3 1.0	3.5 1.0	1.5
29	GXT4-10000RT208-GE (base mounted - rigid)	JID 19-00422, Rev.1 (UUT1)	Clark Testing	2-April 2019	Yes	2.00 2.50	1.0 0.0	1.3 1.0	3.5 1.0	1.5

Notes:

1. *QualTech-NP by Curtiss Wright was not ISO 17025 accredited at the time of testing but has been reviewed by TRU Compliance and found to meet the requirements for ICC-ES AC156 testing. Review form is on file with TRU Compliance.*

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UNIT UNDER TEST (UUT) SUMMARY SHEET

1900374-CR-001-R4

UUT 20

Manufacturer:	*Vertiv Corporation*
Product Type:	*Uninterruptible Power Supply (UPS) Rack with UPS and External Battery Cabinets*
Model Line:	*Liebert GXT4 and APS Single Phase UPS*
Model Number:	*EBC-16 Bay*
Serial Number:	*1613000009AW113*
Test Report:	*Q18601.0, Rev.0 (UUT20b)*

UUT Properties

Weight (lbs.)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
755	28.00	17.25	38.13	26.17	7.56	23.14

UUT Highest Passed Seismic Run Information

Building Code	Test Criteria	S_{DS} (g)	z/h	R_μ	H_f	I_P	A_{FLX-H} (g)	A_{RIG-H} (g)	A_{FLX-V} (g)	A_{RIG-V} (g)
CBC 2025	ICC-ES AC 156-24	2.11	1.0	1.3	3.5	1.5	3.38	2.27	2.10	0.84
		3.15	0.0	1.0	1.0					

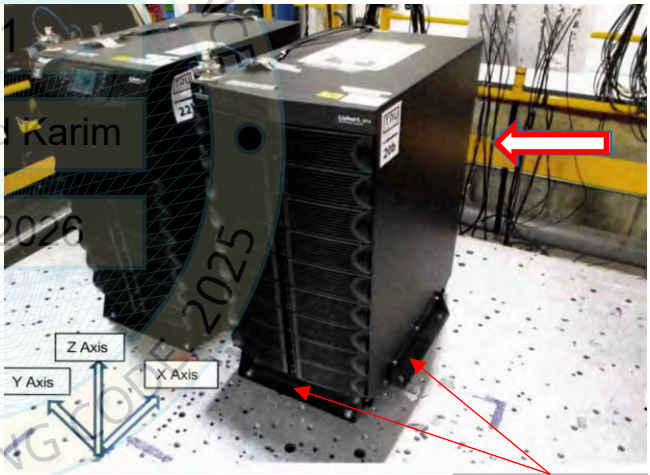
Product Construction Summary:

Carbon Steel Casing

Options/Subcomponent Summary:

Description	*Mfr.*	*Part Number*
n/a	*n/a*	*n/a*

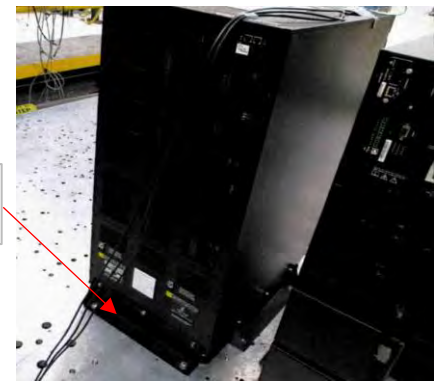
Test Mounting Details:



Mounting Brackets

Test Mounting Details Continued:

Mounting Brackets



UUT20 was base mounted-rigid to the shake table using four (4) mounting brackets (PN: 63122695), one on each side of the unit. Mounting brackets are supplied by the manufacturer and affixed to the shake table using two (2) 3/8"-16 Grade 5 hex bolts, lock washers and flat washers. A total of eight (8) 3/8" -16 bolts were used to mount the unit to shake table.

Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test. Contents were included in testing per operating conditions.

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UNIT UNDER TEST (UUT) SUMMARY SHEET

1900374-CR-001-R4

Manufacturer:	*Vertiv Corporation*
Product Type:	*Uninterruptible Power Supply (UPS) Rack with UPS and External Battery Cabinets*
Model Line:	*Liebert GXT4 and APS Single Phase UPS*
Model Number:	*AS5-10 Bay*
Serial Number:	*1725000161AU043*

UUT 21A

Test Report: *Q18601.0, Rev.0 (UUT21)*

UUT Properties

Weight (lbs.)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
531	32.00	17.25	27.50	23.91	12.59	>33.33

UUT Highest Passed Seismic Run Information

Building Code	Test Criteria	S_{DS} (g)	z/h	R_μ	H_f	I_P	A_{FLX-H} (g)	A_{RIG-H} (g)	A_{FLX-V} (g)	A_{RIG-V} (g)
CBC 2025	ICC-ES AC 156-24	2.43	1.0	1.3	3.5	1.5	3.89	2.62	1.76	0.70
		2.64	0.0	1.0	1.0					

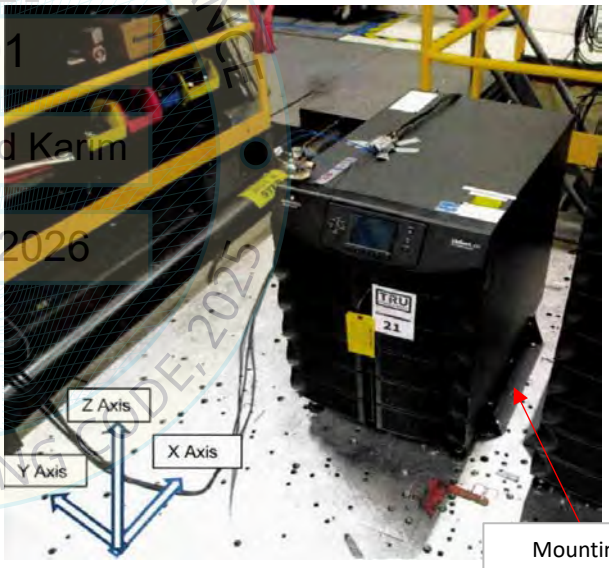
Product Construction Summary:

Carbon Steel Casing

Options/Subcomponent Summary:

Description	*Mfr.*	*Part Number*
Liebert Power Distrubtion Boxes for 8000VA and 10000VA Models	*Vertiv*	*PD2-104*

Test Mounting Details:



UUT21A was base mounted-rigid to the shake table using two (2) mounting brackets (PN: 63122695), one on each side of the unit. Mounting brackets are supplied by the manufacturer and affixed to the shake table using two (2) 3/8"-16 Grade 5 hex bolts, lock washers and flat washers. A total of eight (8) 3/8" -16 bolts were used to mount unit to shake table.

Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test. Contents were included in testing per operating conditions.

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UNIT UNDER TEST (UUT) SUMMARY SHEET

1900374-CR-001-R4

UUT 21B

Manufacturer:	*Vertiv Corporation*
Product Type:	*Uninterruptible Power Supply (UPS) Rack with UPS and External Battery Cabinets*
Model Line:	*Liebert GXT4 and APS Single Phase UPS*
Model Number:	*AS5-10 Bay*
Serial Number:	*1725000161AU043*
Test Report:	*Q18601.0, Rev.0 (UUT21)*

UUT Properties

Weight (lbs.)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
531	32.00	17.25	27.50	6.96	5.14	>33.33

UUT Highest Passed Seismic Run Information

Building Code	Test Criteria	S_{DS} (g)	z/h	R_μ	H_f	I_P	A_{FLX-H} (g)	A_{RIG-H} (g)	A_{FLX-V} (g)	A_{RIG-V} (g)
CBC 2025	ICC-ES AC 156-24	2.09	1.0	1.3	3.5	1.5	3.34	2.25	2.17	0.87
		3.25	0.0	1.0	1.0					

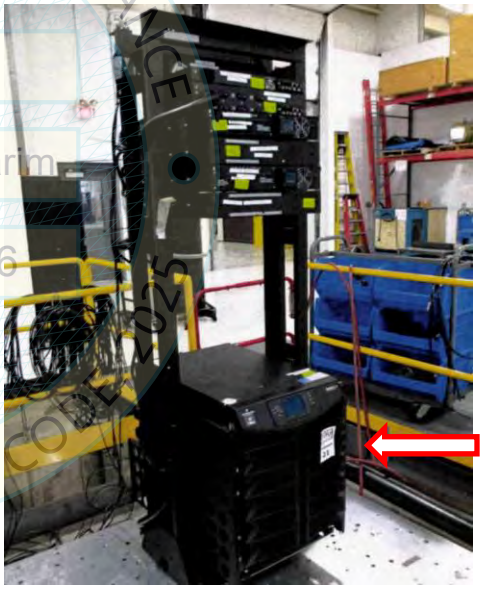
Product Construction Summary:

Carbon Steel Casing

Options/Subcomponent Summary:

Description	*Mfr.*	*Part Number*
Liebert Power Distrubtion Boxes for 8000VA and 10000VA Models	*Vertiv*	*PD2-104*

Test Mounting Details:



Test Mounting Details Continued:



Four (4) M4 Screws

UUT21B was mounted to a 2-Post B-Line (Eaton) Seismic Relay Rack (PN: SB85219084) 19" (W) x 84" (H). The 2-Post racked was mounted to the shake table using four (4) 5/8"-11 Grade 8 hex bolts with plate washer (provided with 2-Post rack) and 5/8" lock washers.
UUT21B was mounted to rack using Rack Solutions Shelf Kit (PN: 2USHL-100) and one and a half (1.5) 2-Post Conversion Brackets (PN: 2POST-7UKIT) and two Chatsworth rear strap (PN: 12086-719). The unit was affixed to the shelf kit and brackets using eight (8) M4 bolts at each of the units ears.
Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test. Contents were included in testing per operating conditions.

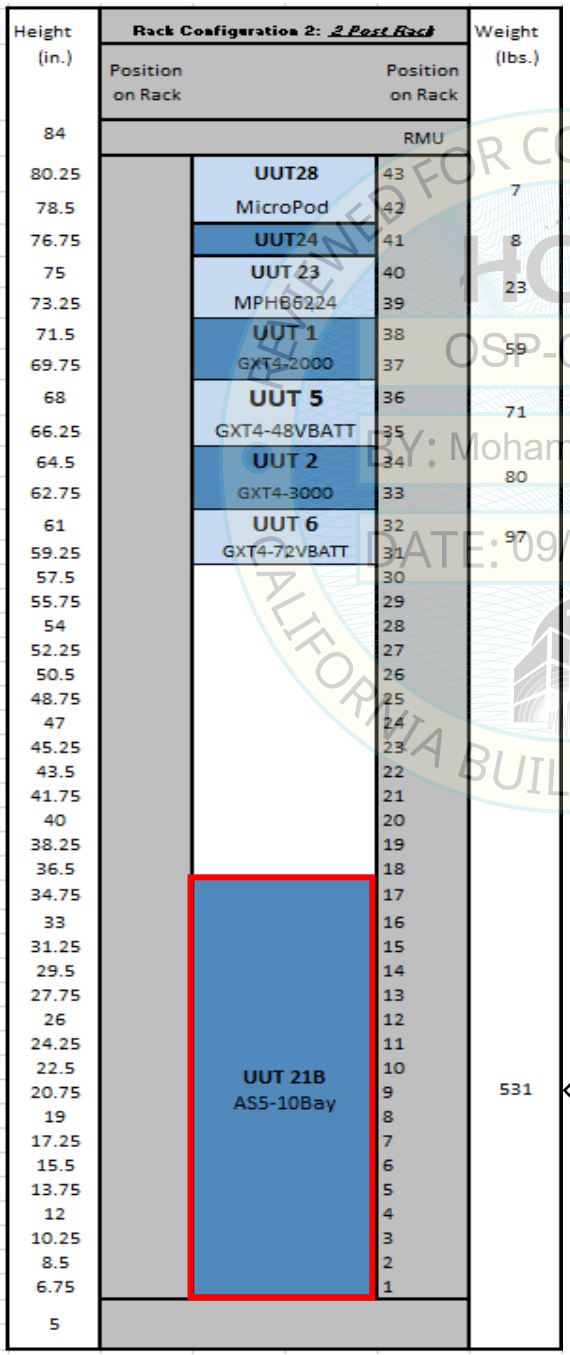
HCAI OSP-0101 BY: Mohammad Karim DATE: 09/04/2026 REVIEWED FOR CODE COMPLIANCE CALIFORNIA BUILDING CODE

UNIT UNDER TEST (UUT) SUMMARY SHEET

1900374-CR-001-R4

Manufacturer:	*Vertiv Corporation*	**UUT 21B**	
Product Type:	*Uninterruptible Power Supply (UPS) Rack with UPS and External Battery Cabinets*		
Model Line:	*Liebert GXT4 and APS Single Phase UPS*		
Model Number:	*AS5-10 Bay*		
Serial Number:	*1725000161AU043*	***Test Report:***	*Q18601.0, Rev.0 (UUT21)*

Product Rack Configuration Summary:



UUT21B
Model Number: AS5-10 Bay
UUT Weight (lbs.) : 531
Total UUT Weight (lbs.): 876
Rack Weight (lbs.): 30
Total Weight (lbs.): 906
Overall Height (in.): 84
Center of Gravity for UUT (in.): 20.75 as limit
Overall CG Height (in.) = 38.6

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UNIT UNDER TEST (UUT) SUMMARY SHEET

1900374-CR-001-R4

UUT 22

Manufacturer:	*Vertiv Corporation*
Product Type:	*Uninterruptible Power Supply (UPS) Rack with UPS and External Battery Cabinets*
Model Line:	*Liebert GXT4 and APS Single Phase UPS*
Model Number:	*AS6-16 Bay*
Serial Number:	*1703800256AU053*
Test Report:	*Q18601.0, Rev.0 (UUT22b)*

UUT Properties

Weight (lbs.)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
838	33.50	17.25	38.13	9.92	14.72	30.85

UUT Highest Passed Seismic Run Information

Building Code	Test Criteria	S_{DS} (g)	z/h	R_μ	H_f	I_P	A_{FLX-H} (g)	A_{RIG-H} (g)	A_{FLX-V} (g)	A_{RIG-V} (g)
CBC 2025	ICC-ES AC 156-24	2.11	1.0	1.3	3.5	1.5	3.38	2.27	2.10	0.84
		3.15	0.0	1.0	1.0					

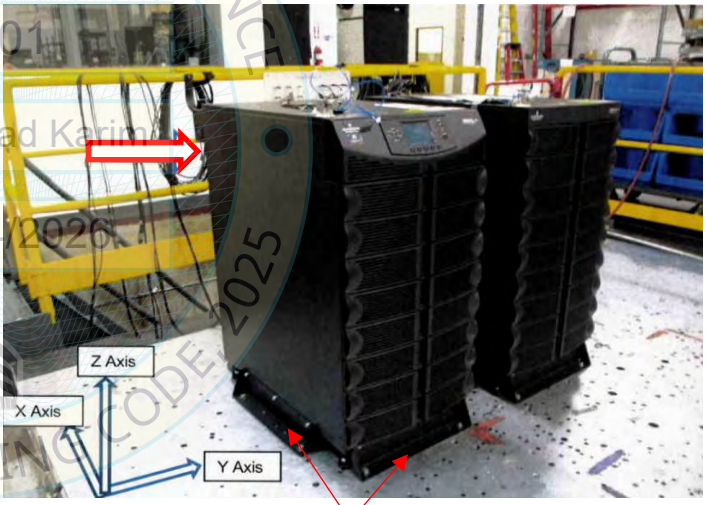
Product Construction Summary:

Carbon Steel Casing

Options/Subcomponent Summary:

Description	*Mfr.*	*Part Number*
Liebert Power Distrubtion Boxes for 8000VA and 10000VA Models	*Vertiv*	*PD2-104*

Test Mounting Details:



Mounting Brackets

UUT22 was base mounted-rigid to the shake table using four (4) mounting brackets (PN: 63122695), one on each side of the unit. Mounting brackets are supplied by the manufacturer and affixed to the shake table using two (2) 3/8"-16 Grade 5 hex bolts, lock washers and flat washers. A total of eight (8) 3/8" -16 bolts were used to mount unit to shake table.

Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test. Contents were included in testing per operating conditions.

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UNIT UNDER TEST (UUT) SUMMARY SHEET

1900374-CR-001-R4

UUT 23

Manufacturer:	*Vertiv Corporation*
Product Type:	*Uninterruptible Power Supply (UPS) Rack with UPS and External Battery Cabinets*
Model Line:	*Liebert GXT4 and APS Single Phase UPS*
Model Number:	*MPHB6224*
Serial Number:	*V16J2600147*
Test Report:	*Q18601.0, Rev.0 (UUT23)*

UUT Properties

Weight (lbs.)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
23	10.00	19.00	3.50	7.20	5.72	>33.33

UUT Highest Passed Seismic Run Information

Building Code	Test Criteria	S_{DS} (g)	z/h	R_μ	H_f	I_P	A_{FLX-H} (g)	A_{RIG-H} (g)	A_{FLX-V} (g)	A_{RIG-V} (g)
CBC 2025	ICC-ES AC 156-24	2.33	1.0	1.3	3.5	1.5	3.73	2.51	1.83	0.73
		2.75	0.0	1.0	1.0					

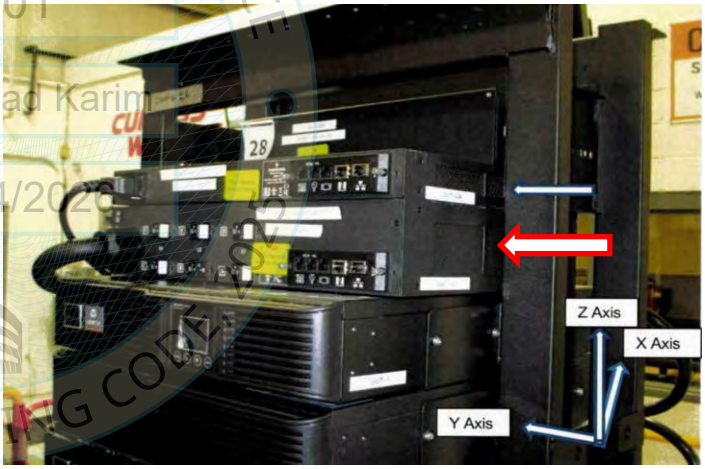
Product Construction Summary:

Carbon Steel Casing

Options/Subcomponent Summary:

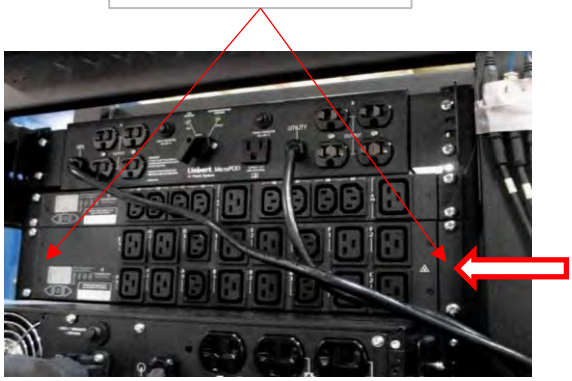
Description	*Mfr.*	*Part Number*
n/a	*n/a*	*n/a*

Test Mounting Details:



Test Mounting Details Continued:

Four (4) M4 Screws



UUT23 was mounted to a 2-Post B-Line (Eaton) Seismic Relay Rack (PN: SB85219084) 19" (W) x 84" (H). The 2-Post rack was base mounted-rigid to the shake table using four (4) 5/8"-11 Grade 8 hex bolts with plate washer (provided with 2-Post rack) and 5/8" lock washers. UUT23 was attached to the 2-Post rack using four (4) M4 screws at it ears.

Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test. Contents were included in testing per operating conditions.

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UNIT UNDER TEST (UUT) SUMMARY SHEET

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Manufacturer:	*Vertiv Corporation*	**UUT 23**	
Product Type:	*Uninterruptible Power Supply (UPS) Rack with UPS and External Battery Cabinets*		
Model Line:	*Liebert GXT4 and APS Single Phase UPS*		
Model Number:	*MPHB6224*		
Serial Number:	*V16J2600147*	***Test Report:***	*Q18601.0, Rev.0 (UUT23)*

Product Rack Configuration Summary:

Height (in.)	Rack Configuration 1A: *2 Post Rack* Position on Rack	Position on Rack RMU	Weight (lbs.)
84			
80.25	UUT28 MicroPod	43	7
78.5		42	
76.75	UUT24	41	8
75	UUT 23 MPHB6224	40	23
73.25		39	
71.5	UUT 1 GXT4-2000	38	59
69.75		37	
68	UUT 5 GXT4-48VBATT	36	71
66.25		35	
64.5	UUT 2 GXT4-3000	34	80
62.75		33	
61	UUT 6 GXT4-72VBATT	32	97
59.25		31	
57.5		30	
55.75		29	
54		28	
52.25		27	
50.5		26	
48.75		25	
47		24	
45.25		23	
43.5		22	
41.75		21	
40		20	
38.25		19	
36.5		18	
34.75		17	
33		16	
31.25	UUT 3 GTX4-5000	15	141
29.5		14	
27.75		13	
26	UUT 7 GXT4-144VBATT	12	106
24.25		11	
22.5		10	
20.75	UUT 4 GXT4-10000	9	236
19		8	
17.25		7	
15.5		6	
13.75		5	
12		4	
10.25	UUT 8 GTX4-288VBATT	3	184
8.5		2	
6.75		1	
5			

UUT23
Model Number: MPHB6224
UUT Weight (lbs.) : 23
Total UUT Weight (lbs.): 1012
Rack Weight (lbs.): 30
Total Weight (lbs.): 1042
Overall Height (in.): 84
Center of Gravity for UUT(in.): 73.25" limit
Overall CG Height (in.) = 36

ACTIVE FOR CODE CYCLE
HCAi
OSP-0101
BY: Mohammad Kamal
DATE: 09/04/2026
CALIFORNIA BUILDING CODE, 2025

UNIT UNDER TEST (UUT) SUMMARY SHEET

1900374-CR-001-R4

Manufacturer:	*Vertiv Corporation*	**UUT 24**
Product Type:	*Uninterruptible Power Supply (UPS) Rack with UPS and External Battery Cabinets*	
Model Line:	*Liebert GXT4 and APS Single Phase UPS*	
Model Number:	*MPH82341*	
Serial Number:	*V16E2600129*	***Test Report:*** *Q18601.0, Rev.0 (UUT1)*

UUT Properties

Weight (lbs.)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
8	10.50	19.00	1.75	7.20	5.72	>33.33

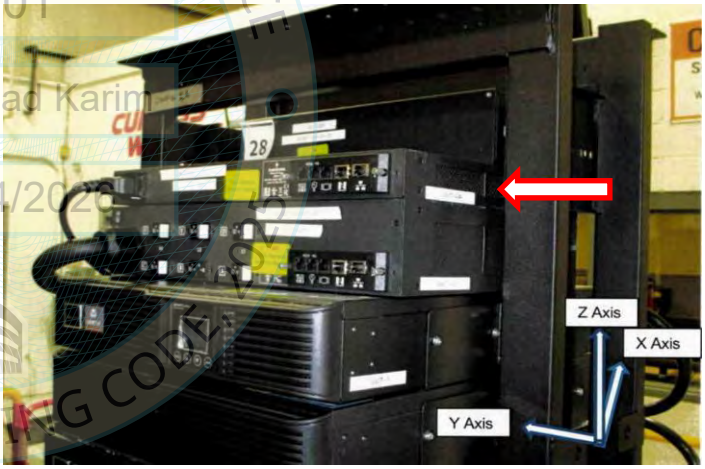
UUT Highest Passed Seismic Run Information

Building Code	Test Criteria	S_{DS} (g)	z/h	R_μ	H_f	I_P	A_{FLX-H} (g)	A_{RIG-H} (g)	A_{FLX-V} (g)	A_{RIG-V} (g)
CBC 2025	ICC-ES AC 156-24	2.33	1.0	1.3	3.5	1.5	3.73	2.51	1.83	0.73
		2.75	0.0	1.0	1.0					

Product Construction Summary:

Carbon Steel Casing

Test Mounting Details:



Options/Subcomponent Summary:

Description	*Mfr.*	*Part Number*
n/a	*n/a*	*n/a*

Test Mounting Details Continued:

Four (4) M4 Screws



UUT24 was mounted to a 2-Post B-Line (Eaton) Seismic Relay Rack (PN: SB85219084) 19" (W) x 84" (H). The 2-Post rack was base mounted-rigid to the shake table using four (4) 5/8"-11 Grade 8 hex bolts with plate washer (provided with 2-Post rack) and 5/8" lock washers.
UUT24 was attached to the 2-Post rack using four (4) M4 screws at the ears.
Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test. Contents were included in testing per operating conditions.

REVIEWED FOR OSP COMPLIANCE
HCAI
OSP-0101
BY: Mohammad Karim
DATE: 09/04/2026
CALIFORNIA BUILDING CODE

UNIT UNDER TEST (UUT) SUMMARY SHEET

1900374-CR-001-R4

Manufacturer:	*Vertiv Corporation*	**UUT 24**	
Product Type:	*Uninterruptible Power Supply (UPS) Rack with UPS and External Battery Cabinets*		
Model Line:	*Liebert GXT4 and APS Single Phase UPS*		
Model Number:	*MPH82341*		
Serial Number:	*V16E2600129*	***Test Report:***	*Q18601.0, Rev.0 (UUT1)*

Product Rack Configuration Summary:

Height (in.)	Rack Configuration 1A: 2 Post Rack — Position on Rack	RMU	Position on Rack	Weight (lbs.)
84				
80.25	UUT28 MicroPod	43		7
78.5		42		
76.75	UUT24	41		8
75	UUT 23 MPHB6224	40		23
73.25		39		
71.5	UUT 1 GXT4-2000	38		59
69.75		37		
68	UUT 5 GXT4-48VBATT	36		71
66.25		35		
64.5	UUT 2 GXT4-3000	34		80
62.75		33		
61	UUT 6 GXT4-72VBATT	32		97
59.25		31		
57.5		30		
55.75		29		
54		28		
52.25		27		
50.5		26		
48.75		25		
47		24		
45.25		23		
43.5		22		
41.75		21		
40		20		
38.25		19		
36.5		18		
34.75		17		
33		16		
31.25	UUT 3 GTX4-5000	15		141
29.5		14		
27.75		13		
26	UUT 7 GXT4-144VBATT	12		106
24.25		11		
22.5		10		
20.75	UUT 4 GXT4-10000	9		236
19		8		
17.25		7		
15.5		6		
13.75		5		
12		4		
10.25	UUT 8 GTX4-288VBATT	3		184
8.5		2		
6.75		1		
5				

UUT24
Model Number: MPHB2341
UUT Weight (lbs.) : 8
Total UUT Weight (lbs.): 1012
Rack Weight (lbs.): 30
Total Weight (lbs.): 1042
Overall Height (in.): 84
Center of Gravity for UUT (in.): 75.88" limit
Overall CG Height (in.) = 36

ACTIVE FOR CODE CYCLE
HCAi
OSP-0101
BY: Mohammad Karim
DATE: 09/04/2026
CALIFORNIA BUILDING CODE, 2025

UNIT UNDER TEST (UUT) SUMMARY SHEET

1900374-CR-001-R4

Manufacturer:	*Vertiv Corporation*
Product Type:	*Uninterruptible Power Supply (UPS) Rack with UPS and External Battery Cabinets*
Model Line:	*Liebert GXT4 and APS Single Phase UPS*
Model Number:	*MP2-115A*
Serial Number:	*1716100024AG333*
Test Report:	*Q18601.0, Rev.0 (UUT28)*

UUT 28

UUT Properties

Weight (lbs.)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
7	3.00	15.00	3.50	7.20	5.72	>33.33

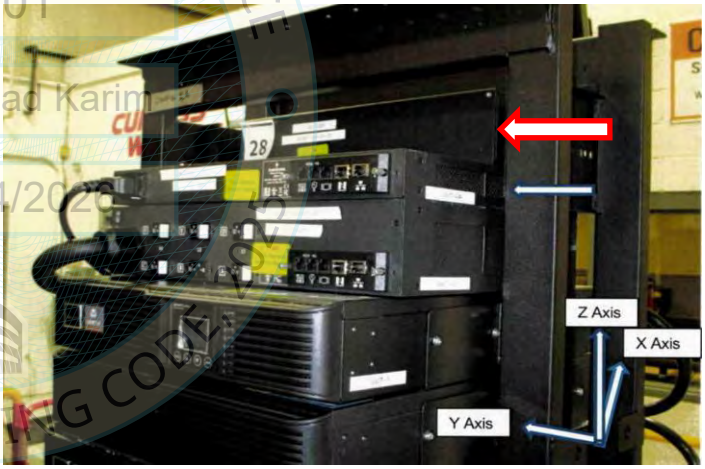
UUT Highest Passed Seismic Run Information

Building Code	Test Criteria	S_{DS} (g)	z/h	R_μ	H_f	I_P	A_{FLX-H} (g)	A_{RIG-H} (g)	A_{FLX-V} (g)	A_{RIG-V} (g)
CBC 2025	ICC-ES AC 156-24	2.33	1.0	1.3	3.5	1.5	3.73	2.51	1.83	0.73
		2.75	0.0	1.0	1.0					

Product Construction Summary:

Carbon Steel Casing

Test Mounting Details:



Options/Subcomponent Summary:

Description	*Mfr.*	*Part Number*
n/a	*n/a*	*n/a*

Test Mounting Details Continued:

Four (4) M4 Screws



UUT28 was mounted to a 2-Post B-Line (Eaton) Seismic Relay Rack (PN: SB85219084) 19" (W) x 84" (H). The 2-Post rack was base mounted-rigid to the shake table using four (4) 5/8"-11 Grade 8 hex bolts with plate washer (provided with 2-Post rack) and 5/8" lock washers.
UUT28 was attached to the 2-Post rack using four (4) M4 screws at the ears.
Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test. Contents were included in testing per operating conditions.

REVIEWED FOR CODE COMPLIANCE
HCAI
OSP-0101
BY: Mohammad Karim
DATE: 09/04/2026
CALIFORNIA BUILDING CODE

UNIT UNDER TEST (UUT) SUMMARY SHEET

1900374-CR-001-R4

Manufacturer:	*Vertiv Corporation*
Product Type:	*Uninterruptible Power Supply (UPS) Rack with UPS and External Battery Cabinets*
Model Line:	*Liebert GXT4 and APS Single Phase UPS*
Model Number:	*MP2-115A*
Serial Number:	*1716100024AG333*

UUT 28

Test Report: *Q18601.0, Rev.0 (UUT28)*

Product Rack Configuration Summary:

Height (in.)	Rack Configuration 1A: *2 Post Rack* Position on Rack	RMU	Weight (lbs.)
84			
80.25	UUT28 MicroPod	43	7
78.5		42	
76.75	UUT24	41	8
75	UUT 23 MPHB6224	40	23
73.25		39	
71.5	UUT 1 GXT4-2000	38	59
69.75		37	
68	UUT 5 GXT4-48VBATT	36	71
66.25		35	
64.5	UUT 2 GXT4-3000	34	80
62.75		33	
61	UUT 6 GXT4-72VBATT	32	97
59.25		31	
57.5		30	
55.75		29	
54		28	
52.25		27	
50.5		26	
48.75		25	
47		24	
45.25		23	
43.5		22	
41.75		21	
40		20	
38.25		19	
36.5		18	
34.75		17	
33		16	
31.25	UUT 3 GTX4-5000	15	141
29.5		14	
27.75		13	
26	UUT 7 GXT4-144VBATT	12	106
24.25		11	
22.5		10	
20.75	UUT 4 GXT4-10000	9	236
19		8	
17.25		7	
15.5		6	
13.75		5	
12		4	
10.25	UUT 8 GTX4-288VBATT	3	184
8.5		2	
6.75		1	
5			

UUT28
Model Number: MP2-115A
UUT Weight (lbs.) : 7
Total UUT Weight (lbs.): 1012
Rack Weight (lbs.): 30
Total Weight (lbs.): 1042
Overall Height (in.): 84
Center of Gravity for UUT (in.): 78.5 limit
Overall CG Height (in.) = 36

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BY: Mohammad Karim
DATE: 09/04/2026
CALIFORNIA BUILDING CODE, 2025

UNIT UNDER TEST (UUT) SUMMARY SHEET

1900374-CR-001-R4

UUT 29

Manufacturer:	*Vertiv Corporation*
Product Type:	*Uninterruptible Power Supply (UPS) Rack with UPS and External Battery Cabinets*
Model Line:	*Liebert GXT4 and APS Single Phase UPS*
Model Number:	*GXT4-10000RT208-GE*
Serial Number:	*n/a*
Test Report:	*JID 19-00422, Rev.1 (UUT1)*

UUT Properties

Weight (lbs.)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
268	27.50	14.38	21.00	29.67	25.52	>33.33

UUT Highest Passed Seismic Run Information

Building Code	Test Criteria	S_{DS} (g)	z/h	R_μ	H_f	I_P	A_{FLX-H} (g)	A_{RIG-H} (g)	A_{FLX-V} (g)	A_{RIG-V} (g)
CBC 2025	ICC-ES AC 156-24	2.11	1.0	1.3	3.5	1.5	3.38	2.27	2.10	0.84
		3.15	0.0	1.0	1.0					

Product Construction Summary:

Carbon Steel Casing

Options/Subcomponent Summary:

Description	*Mfr.*	*Part Number*
n/a	*n/a*	*n/a*

Test Mounting Details:



Mounting Brackets

Test Mounting Details Continued:



Mounting Brackets

UUT29 was base mounted-rigid to the shake table using two (2) mounting brackets (PN: 63240chm), one on each side of the unit. Mounting brackets are supplied by the manufacturer and affixed to the shake table using five (5) 1/2"-13 hex head Grade 8 bolts with flat washers and lock washers. A total of ten (10) 1/2"-13 bolts were used to mount unit to shake table. Torqued to 50 ft./lbs.
Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test. Contents were included in testing per operating conditions.

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OSP-0101
BY: Mohammad Karim
DATE: 09/04/2026
CALIFORNIA BUILDING CODE, 2025

B-Line Two-Post Relay Rack Details

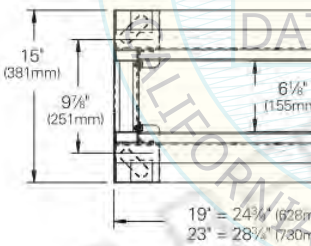
Network Equipment Racks & Accessories

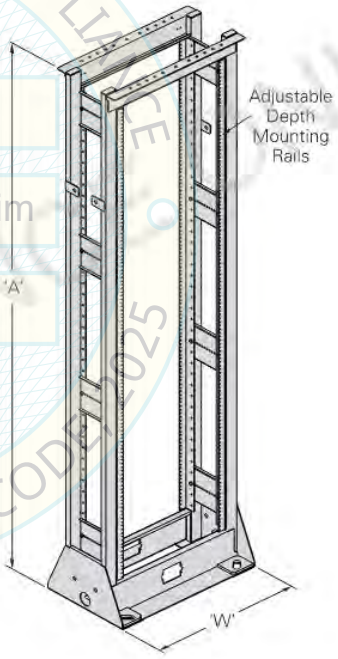
Two-Post Relay Rack

Network equipment racks & accessories

Two-Post Seismic Relay Rack
19" & 23" Panel Mounting, Welded Steel

- Independently tested to NEBS GR-63-CORE Seismic Zone 4 standard; and for 900 lbs. (408kg) of equipment
- Independent testing conducted in accordance with ICBO AC156 standard for use up to 900 lbs. (408kg)
- Conformance to EIA/ECA-310-E
- Mounting rail spacing is adjustable from 3" (76mm) to 8" (203mm)
- 43 RMU (rack mounting units)
- Open top, bottom, and sides permit unlimited cable management options
- Industry standard mounting holes on sides allow attachment of vertical cable managers
- Top angles drilled for runway attachment
- Openings in front and rear of base for duplex receptacle mounting
- Holes for grounding provided in four locations
- Tubular steel frame provides a high degree of strength to weight ratio
- See page ii for link to OPM approvals
- Concrete installation requires (4) AWA-62-350 (sold separately)
- Finish — Flat black powder coat (FB)
  Telco gray powder coat (TG)





Part Number	'A' Height In.	(mm)	'W' Spacing In.	(mm)	Mounting Spaces	Shipping Weight Lbs.	(kg)
19" (482mm) Rack Width							
SB85219084___	84"	(2133)	24¾"	(628)	43	113	(51.3)
~~**SB85219096___**~~	~~96"~~	~~(2438)~~	~~24¾"~~	~~(628)~~	~~49~~	~~124~~	~~(56.2)~~
~~**23" (584mm) Rack Width**~~							
~~**SB85223084___**~~	~~84"~~	~~(2133)~~	~~28¾"~~	~~(730)~~	~~43~~	~~117~~	~~(53.1)~~
~~**SB85223096___**~~	~~96"~~	~~(2133)~~	~~28¾"~~	~~(730)~~	~~49~~	~~127~~	~~(57.6)~~

Specify part number and finish when ordering.

12 B-Line series Server & Network Solutions www.eaton.com

HCAi OSP-0101 BY: Mohammad Karim DATE: 09/04/2026 CALIFORNIA BUILDING CODE 2025 APPROVED FOR CODE COMPLIANCE ONLY