

Seismic Data Requirements for Eaton® UPS Equipment Installation

Eaton 9x55 UPS
Eaton 9390 UPS
Eaton 9395 UPS
Eaton 93PM UPS



p/n: 164000050
Revision 03

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Chapter 1 Introduction to Seismic Mounting Plans and Requirements

Eaton equipment represented in the following sections were subjected to seismic testing in accordance with the 2006 or 2012 International Building Code (IBC) and the 2007 California Building Code (CBC). The results of these tests exceeded the requirements as stated within the IBC, CBC, and OSHPD and demonstrated the ability to function after the test. All installation guidelines covered in this document as well as the instruction and operations literature provided with the equipment must be followed to ensure installation suitable for a seismic application.

Certificates for various types of distribution and control equipment along with an application paper, “Earthquake Requirements and Seismic Capabilities for Eaton’s Electrical Distribution and Control Equipment” can be found at www.eaton.com/seismic.

The California State Office of Statewide Health Planning and Development (OSHPD) pre-approval for this equipment can be found at <https://oshpd.ca.gov/FDD/Pre-Approval/SpecSeisCert-wTemplate.html>.

Chapter 2 Eaton 9x55 UPS Foundation Plan and Mounting Requirements

Proper mounting of the equipment is the single most important factor in withstanding a seismic event. The foundation must be level and continuous under the entire assembly. The foundation must be designed to withstand the reaction loads imposed on it by the equipment during a seismic event. At a minimum, the foundation must be designed to accommodate the tensile strength of the hardware indicated in [Table 1](#). The anchoring system should be put in place prior to equipment installation to reduce effort associated with anchoring. Welding to embedded steel members is acceptable provided the strength of the welds is comparable to the mounting bolts.

 **CAUTION**

The user is responsible for compliance with all local seismic codes.



NOTE

Anchoring hardware is not provided with Eaton seismic mounting kits because the type of hardware is dependant on the foundation construction and composition.

Table 1. 9x55 Unit and Fastener Requirements from Unit to Floor

Type	Bolt Type and Size	Torque	Quantity
8-15 kVA UPS, 2 High	Class 8.8, M10	42 Nm	12
8-15 kVA UPS, 3 High	Class 8.8, M10	42 Nm	12
8-15 kVA EBC, 2 and 3 High	Class 8.8, M10	42 Nm	12
20-30 kVA UPS Cabinet	Class 8.8, M10	42 Nm	10
20-30 kVA Options Cabinet	Class 8.8, M10	42 Nm	10

2.1 Displacement

The horizontal displacement of the top of the equipment is listed in [Table 2](#). The horizontal displacements given in the table are plus/minus values. The equipment must be at the minimum distance listed in the table to avoid contact with other stationary objects during a seismic event.

Table 2. 9x55 Unit Seismic Displacement Requirements

Type	Front to Back	Side to Side
8-15 kVA UPS, 2 High	112 mm	112 mm
8-15 kVA UPS, 3 High	117 mm	117 mm
8-15 kVA EBC, 2 and 3 High	153 mm	153 mm
20-30 kVA UPS Cabinet	122 mm	122 mm
20-30 kVA Options Cabinet	121 mm	121 mm

Consideration must be given to attachments (conduits, bus duct, etc.) made to the top of the equipment. Attachments must have provisions to accommodate the displacement of the equipment indicated in [Table 2](#). Entry from the bottom of the equipment eliminates the need for accommodating this motion for attachments.

2.2 Center of Gravity

For seismic calculations, the center of gravity can be approximated using the dimensions in [Table 3](#) with respect to the left side bracket's front mounting hole (x,y,z origin). UPS center of gravity dimensions are with batteries installed.

Table 3. 9x55 Unit Center of Gravity Specifications

Type	X (left to right)	Y (front to rear)	Z (bottom to top)
8-15 kVA UPS, 2 High	81 mm	452 mm	406 mm
8-15 kVA UPS, 3 High	81 mm	452 mm	610 mm
8-15 kVA EBC, 2 and 3 High	81 mm	452 mm	406 mm, 2 High 610 mm, 3 High
20-30 kVA UPS Cabinet	178 mm	475 mm	838 mm
20-30 kVA Options Cabinet	178 mm	275 mm	838 mm

2.3 Power Cables

It is recommended that power cables be lashed together at least every meter within the equipment. Refer to the appropriate Eaton UPS instruction and operation manual for other requirements related to securing power cables.

2.4 9x55 Floor Plan Securing Dimensions

[Figure 1](#) and [Figure 2](#) detail the measurements for attaching the 9x55 seismic brackets to the floor of the building. The drawings are for reference only and are not to scale. Dimension are in millimeters (inches).

Figure 1. 9x55 Stackable Unit Seismic Mounting Detail

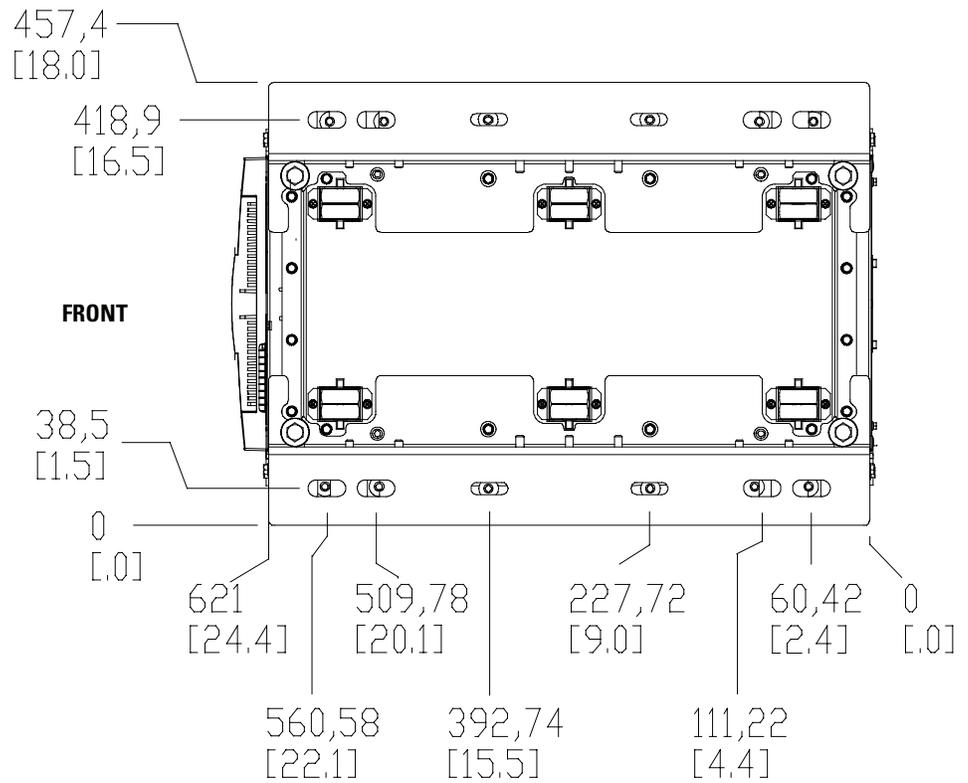
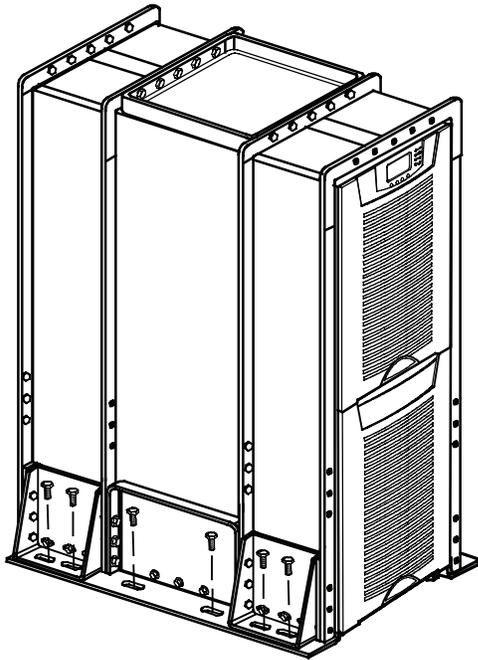
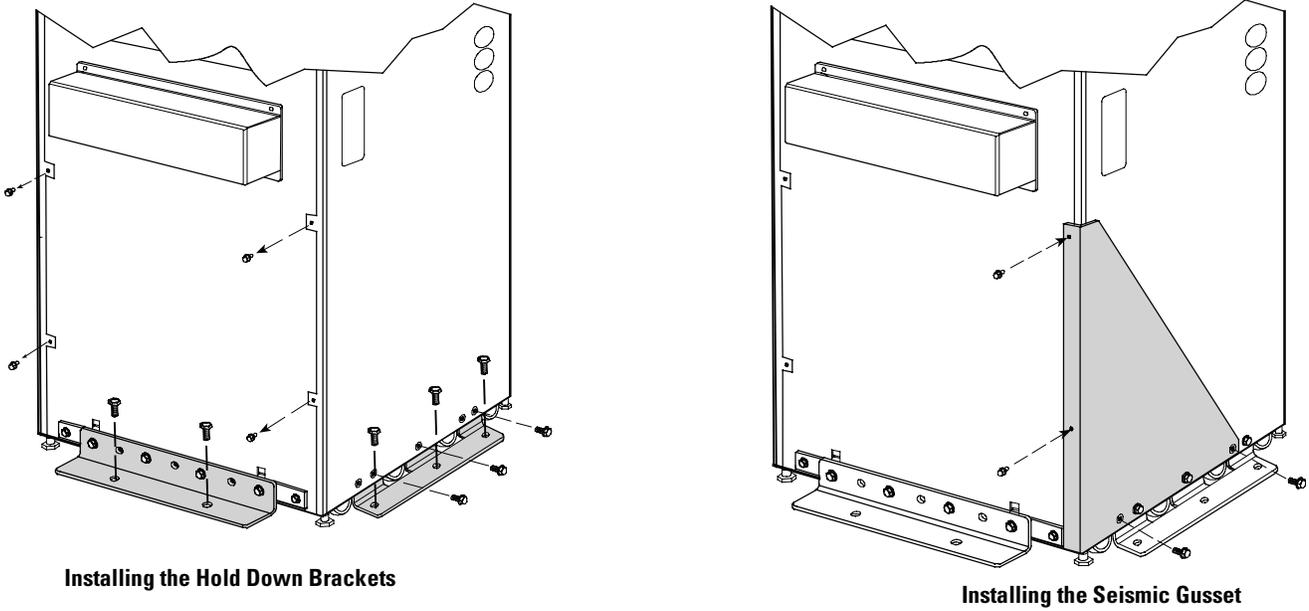
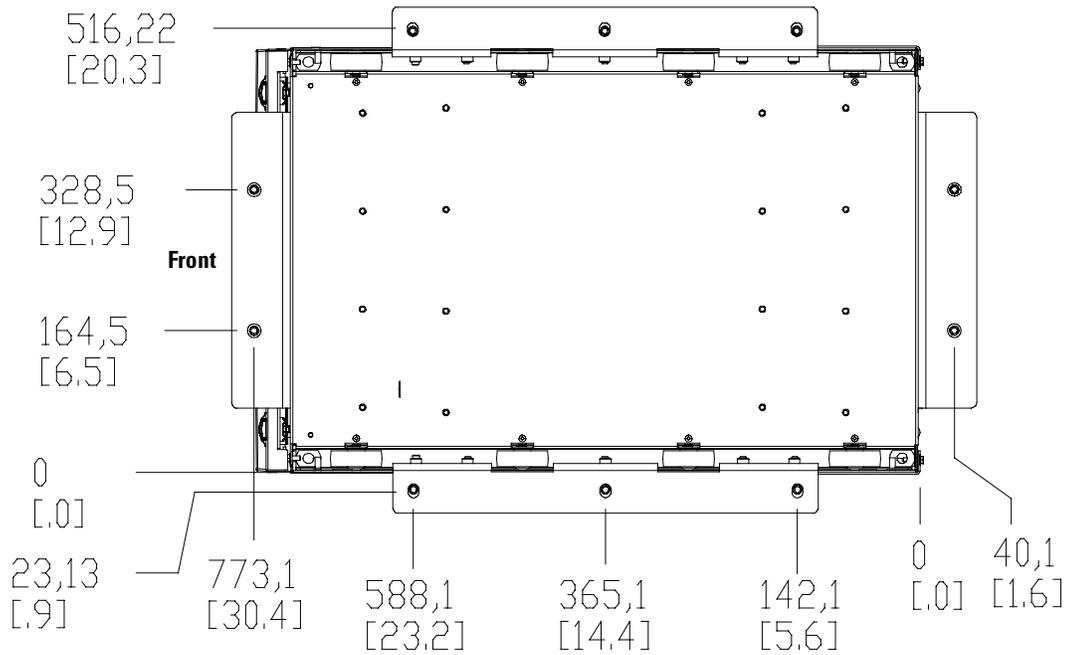


Figure 2. 9x55 20-30 kVA Cabinet Seismic Mounting Detail



Installing the Hold Down Brackets

Installing the Seismic Gusset



Chapter 3 Eaton 9390 Foundation Plan and Mounting Requirements

Proper mounting of the equipment is the single most important factor in withstanding a seismic event. The foundation must be level and continuous under the entire assembly. The foundation must be designed to withstand the reaction loads imposed on it by the equipment during a seismic event. At a minimum, the foundation must be designed to accommodate the tensile strength of the hardware indicated in [Table 4](#). The anchoring system should be put in place prior to equipment installation to reduce effort associated with anchoring. Welding to embedded steel members is acceptable provided the strength of the welds is comparable to the mounting bolts.

 **CAUTION**

The user is responsible for compliance with all local seismic codes.



NOTE

Anchoring hardware is not provided with Eaton seismic mounting kits because the type of hardware is dependant on the foundation construction and composition.

Table 4. 9390 Unit and Fastener Requirements from Unit to Floor

Type	Bolt Type and Size	Torque	Quantity
20-80 kVA UPS	Class 8.8, M10	42 Nm	10
20-80 kVA UPS w/sidecar	Class 8.8, M10	42 Nm	11
100-160 UPS kVA	Class 8.8, M10	42 Nm	14
UPS 100-160 kVA w/sidecar	Class 8.8, M10	42 Nm	15
20-80 kVA IDC	Class 8.8, M10	42 Nm	14
100-160 kVA IDC	Class 8.8, M10	42 Nm	16
IAC-B and IAC-T	Class 8.8, M10	42 Nm	10
IAC-D	Class 8.8, M10	42 Nm	10

3.1 Displacement

The horizontal displacement of the top of the equipment is listed in [Table 5](#). The horizontal displacements given in the table are plus/minus values. The equipment must be at the minimum distance listed in the table to avoid contact with other stationary objects during a seismic event.

Table 5. 9390 Unit Seismic Displacement Requirements

Type	Front to Back	Side to Side
20-80 kVA UPS	30 mm	30 mm
20-80 kVA UPS w/sidecar	30 mm	30 mm
100-160 UPS kVA	48 mm	48 mm
UPS 100-160 kVA w/sidecar	48 mm	48 mm
20-80 kVA IDC	140 mm	140 mm
100-160 kVA IDC	108 mm	108 mm

Table 5. 9390 Unit Seismic Displacement Requirements (Continued)

Type	Front to Back	Side to Side
IAC-B and IAC-T	36 mm	36 mm
IAC-D	36 mm	36 mm

Consideration must be given to attachments (conduits, bus duct, etc.) made to the top of the equipment. Attachments must have provisions to accommodate the displacement of the equipment indicated in [Table 5](#). Entry from the bottom of the equipment eliminates the need for accommodating this motion for attachments.

3.2 Center of Gravity

For seismic calculations, the center of gravity can be approximated using the dimensions in [Table 6](#) with respect to the left side bracket's front mounting hole (x,y,z origin).

Table 6. 9390 Unit Center of Gravity Specifications

Type	X (left to right)	Y (front to rear)	Z (bottom to top)
20-80 kVA UPS	252 mm	248 mm	940 mm
20-80 kVA UPS w/sidecar	393 mm	248 mm	940 mm
100-160 UPS kVA	482 mm	248 mm	965 mm
UPS 100-160 kVA w/sidecar	540 mm	248 mm	965 mm
20-80 kVA IDC	482 mm	248 mm	965 mm
100-160 kVA IDC	575 mm	248 mm	965 mm
IAC-B and IAC-T	319 mm	248 mm	965 mm
IAC-D	319 mm	248 mm	965 mm

3.3 Power Cables

It is recommended that power cables be lashed together at least every meter within the equipment. Refer to the appropriate Eaton UPS instruction and operation manual for other requirements related to securing power cables.

3.4 9390 Floor Plan Securing Dimensions

[Figure 3](#) through [Figure 9](#) detail the measurements for attaching the 9390 seismic brackets to the floor of the building. The drawings are for reference only and are not to scale. Dimension are in millimeters (inches).

Figure 3. 9390 80 kVA UPS Seismic Mounting Detail

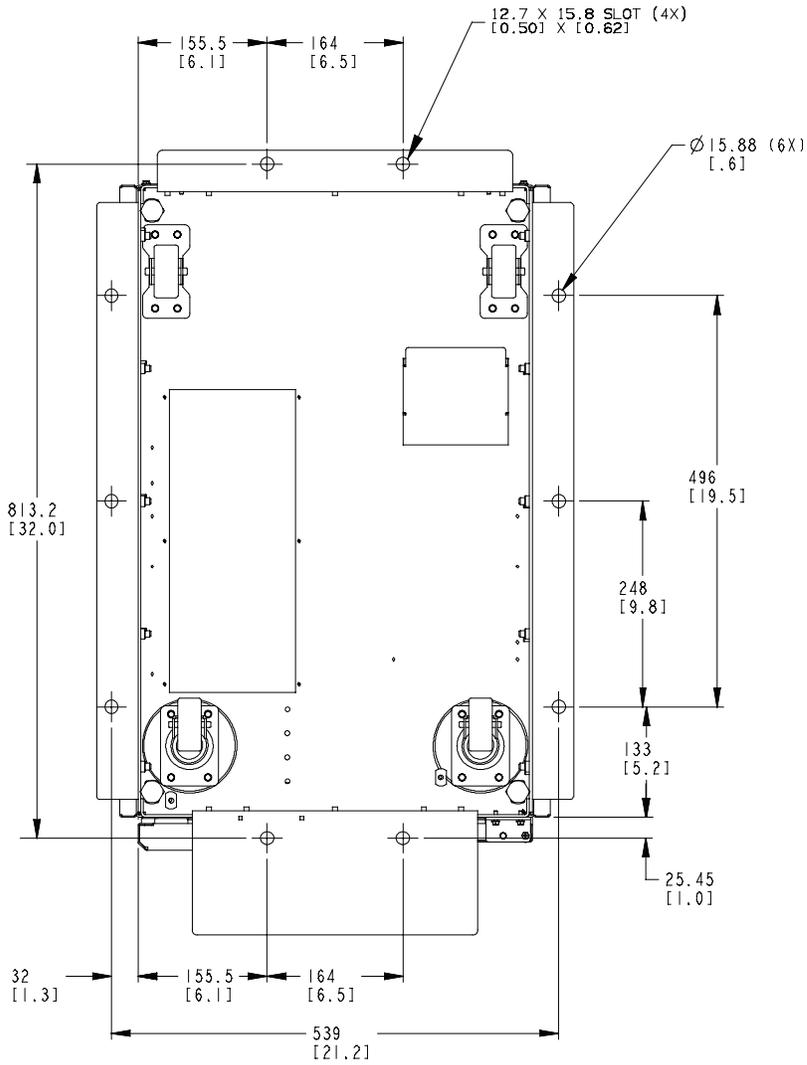


Figure 4. 9390 160 kVA UPS Seismic Mounting Detail

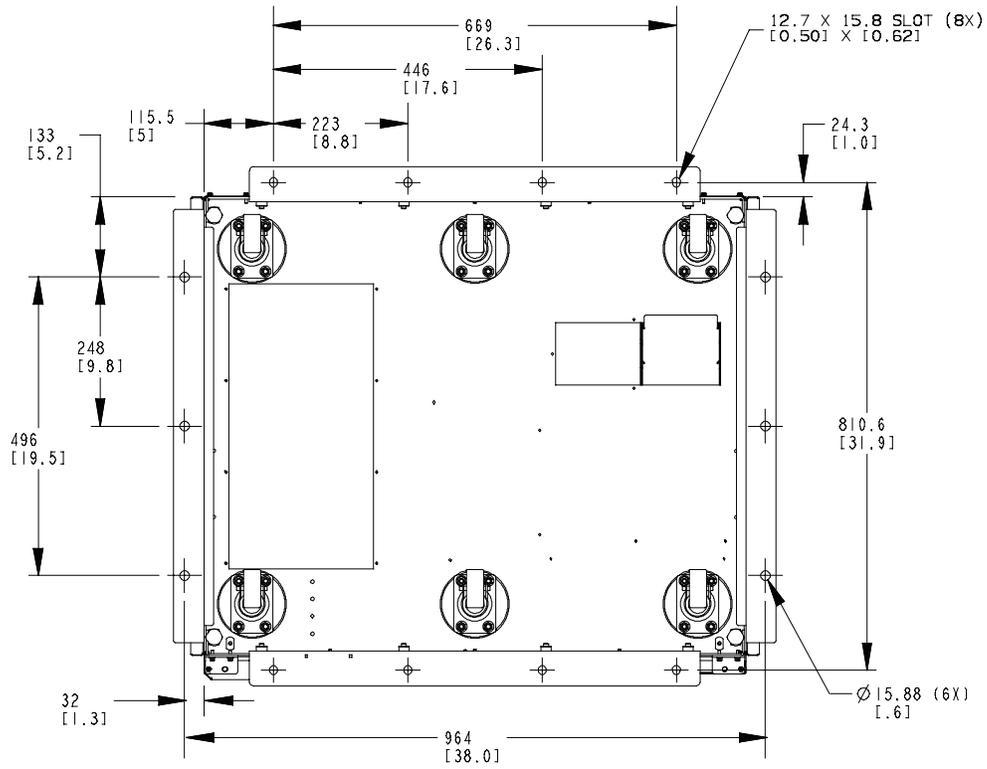


Figure 5. 9390 20-80 kVA IDC Seismic Mounting Detail

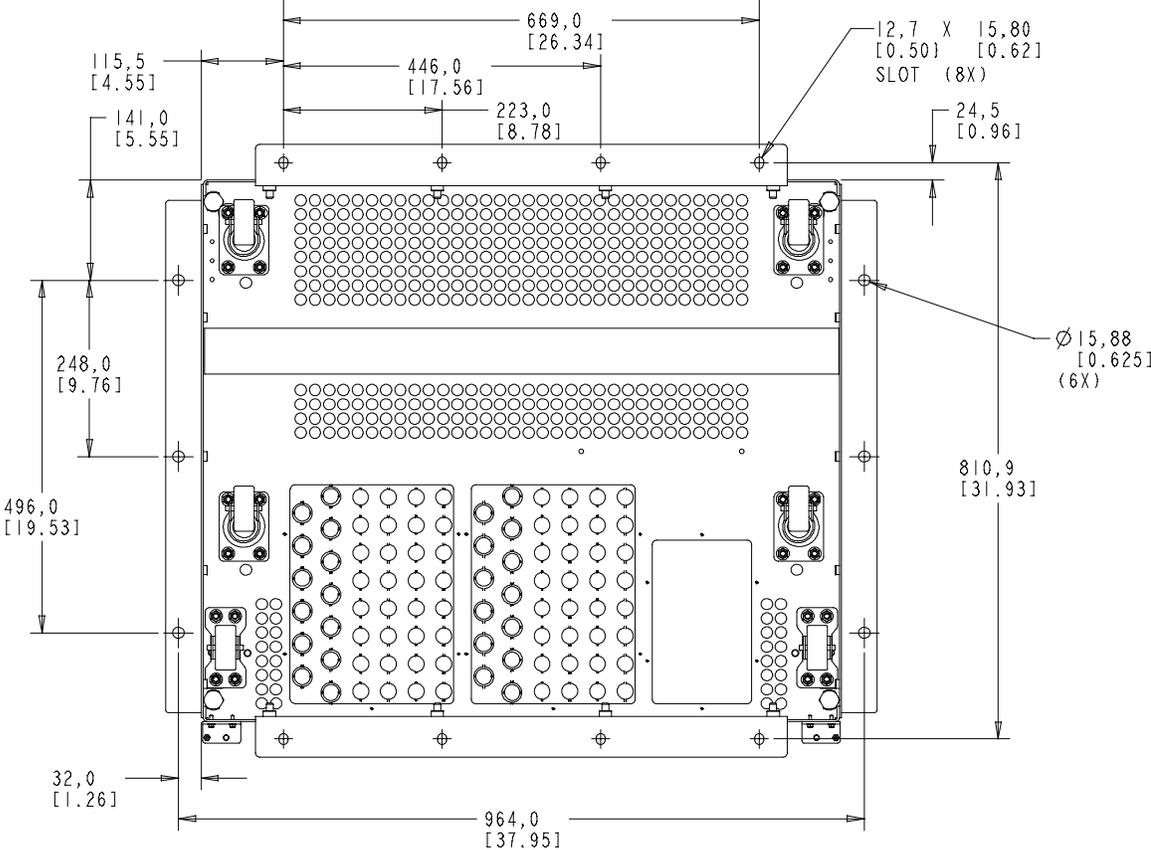


Figure 6. 9390 20-80 kVA with Sidecar Seismic Mounting Dimensions

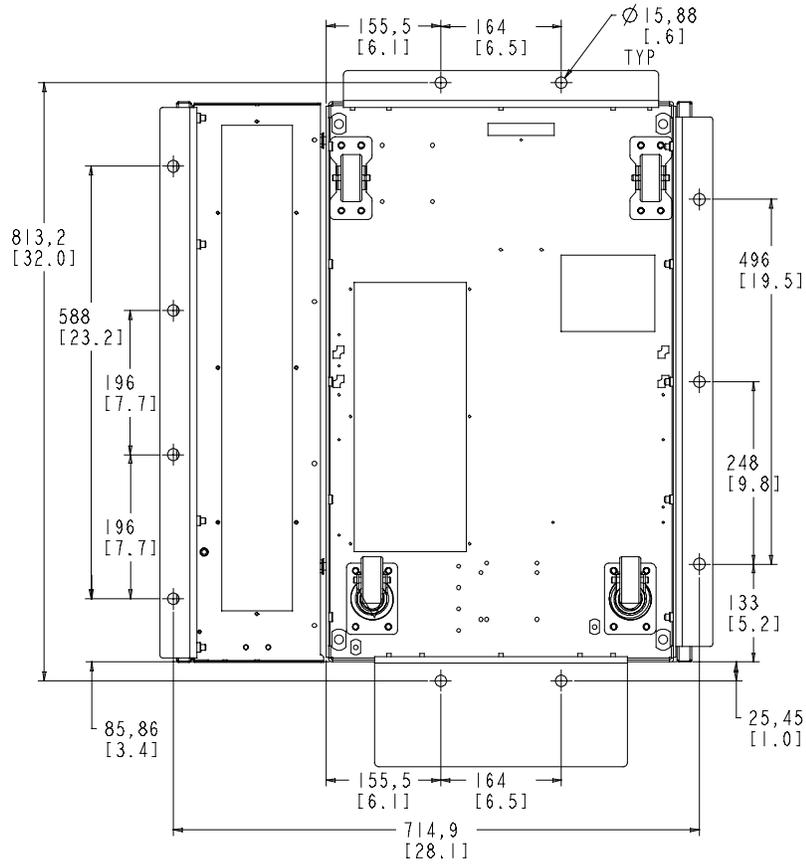


Figure 7. 9390 100-160 kVA with Sidecar Seismic Mounting Dimensions

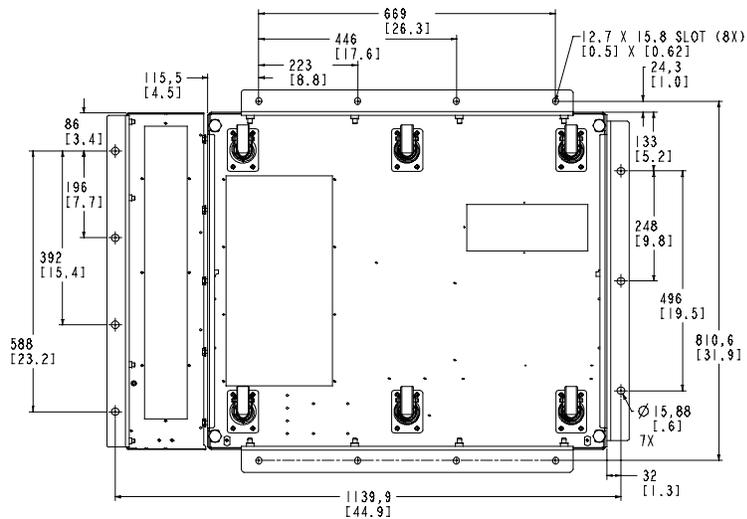
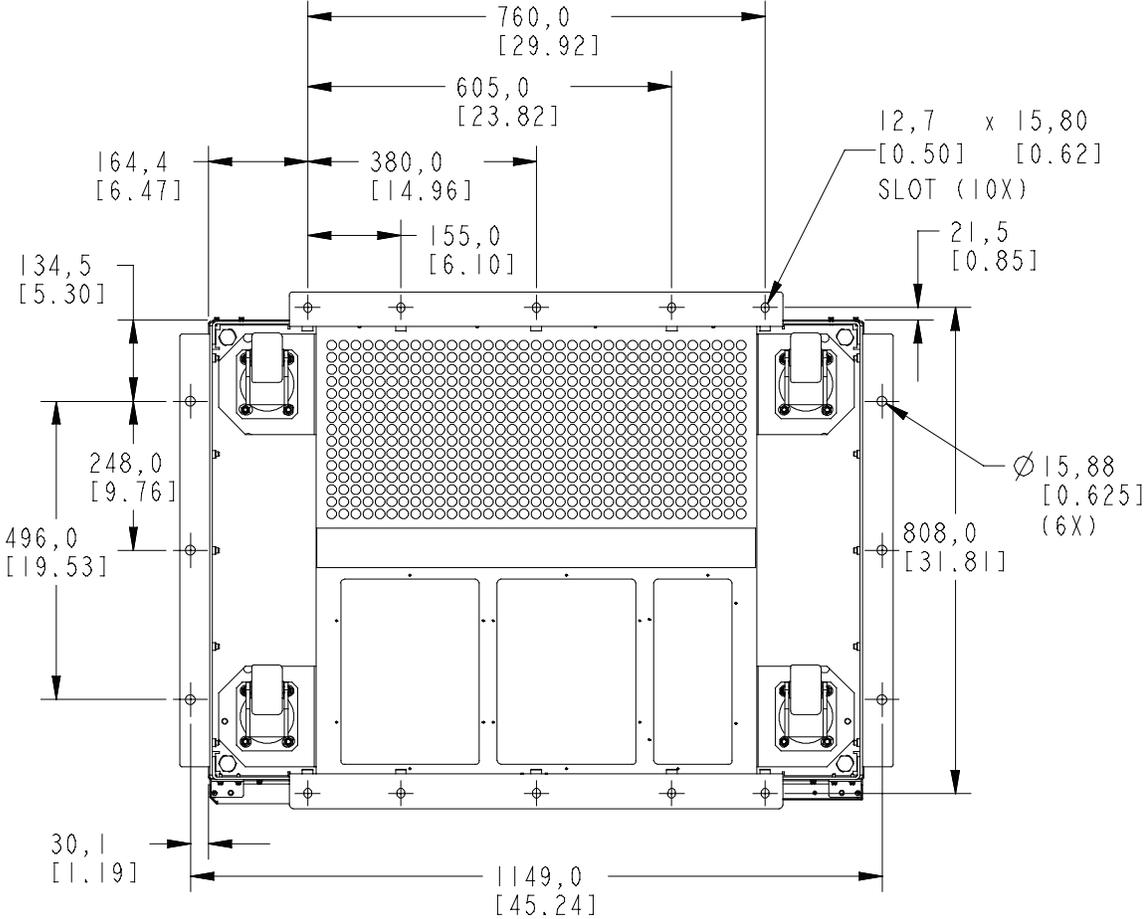


Figure 8. 9390 160 kVA IDC Seismic Mounting Dimensions



Chapter 4 Eaton 9395 Foundation Plan and Mounting Requirements

Proper mounting of the equipment is the single most important factor in withstanding a seismic event. The foundation must be level and continuous under the entire assembly. The foundation must be designed to withstand the reaction loads imposed on it by the equipment during a seismic event. At a minimum, the foundation must be designed to accommodate the tensile strength of the hardware indicated in [Table 7](#). The anchoring system should be put in place prior to equipment installation to reduce effort associated with anchoring. Welding to embedded steel members is acceptable provided the strength of the welds is comparable to the mounting bolts.

 **CAUTION**

The user is responsible for compliance with all local seismic codes.



NOTE

Anchoring hardware is not provided with Eaton seismic mounting kits because the type of hardware is dependant on the foundation construction and composition.

Table 7. 9395 Unit and Fastener Requirements from Unit to Floor

Type	Bolt Type and Size	Torque	Quantity
275 kVA UPS	Class 8.8, M12	83 Nm	8
275 kVA UPS and FI-UPM	Class 8.8, M12	83 Nm	12
550 kVA UPS	Class 8.8, M12	83 Nm	8
550 kVA UPS and FI-UPM	Class 8.8, M12	83 Nm	14
825 kVA UPS	Class 8.8, M12	83 Nm	16
825 kVA UPS (2X-UPM)	Class 8.8, M12	83 Nm	14
825 kVA UPS (2X-UPM and FI-UPM)	Class 8.8, M12	83 Nm	20
1100 kVA or 825 kVA and FI-UPM	Class 8.8, M12	83 Nm	22
225-550 kVA MBM	Class 8.8, M12	83 Nm	8
275 kVA UPS and MBM	Class 8.8, M12	83 Nm	12
550 kVA UPS and MBM	Class 8.8, M12	83 Nm	14

4.1 Displacement

The horizontal displacement of the top of the equipment is listed in [Table 8](#). The horizontal displacements given in the table are plus/minus values. The equipment must be at the minimum distance listed in the table to avoid contact with other stationary objects during a seismic event.

Table 8. 9395 Unit Seismic Displacement Requirements

Type	Front to Back	Side to Side
275 kVA UPS	74 mm	49 mm
275 kVA UPS and FI-UPM	74 mm	49 mm
550 kVA UPS	39 mm	44 mm
550 kVA UPS and FI-UPM	39 mm	49 mm

Table 8. 9395 Unit Seismic Displacement Requirements (Continued)

Type	Front to Back	Side to Side
825 kVA UPS	44 mm	44 mm
825 kVA UPS (2X-UPM)	74 mm	49 mm
825 kVA UPS (2X-UPM and FI-UPM)	74 mm	49 mm
1100 kVA or 825 kVA and FI-UPM	44 mm	49 mm
225-550 kVA MBM	36 mm	36 mm
275 kVA UPS and MBM	74 mm	49 mm
550 kVA UPS and MBM	39 mm	44 mm

Consideration must be given to attachments (conduits, bus duct, etc.) made to the top of the equipment. Attachments must have provisions to accommodate the displacement of the equipment indicated in [Table 8](#). Entry from the bottom of the equipment eliminates the need for accommodating this motion for attachments.

4.2 Center of Gravity

For seismic calculations, the center of gravity can be approximated using the dimensions in [Table 9](#) with respect to the left side bracket's front mounting hole (x,y,z origin).

Table 9. 9395 Unit Center of Gravity Specifications

Type	X (left to right)	Y (front to rear)	Z (bottom to top)
275 kVA UPS	856 mm	452 mm	956 mm
275 kVA UPS and FI-UPM	1063 mm	461 mm	943 mm
550 kVA UPS	1140 mm	475 mm	929 mm
550 kVA UPS and FI-UPM	1406 mm	475 mm	928 mm
825 kVA UPS	2160 mm	460 mm	870 mm
825 kVA UPS (2X-UPM)	1823 mm	455 mm	868 mm
825 kVA UPS (2X-UPM and FI-UPM)	2011 mm	460 mm	882 mm
1100 kVA or 825 kVA and FI-UPM	2388 mm	462 mm	880 mm
225-550 kVA MBM	431 mm	323 mm	966 mm
275 kVA UPS and MBM	1409 mm	412 mm	959 mm
550 kVA UPS and MBM	1768 mm	442 mm	937 mm

4.3 Power Cables

It is recommended that power cables be lashed together at least every meter within the equipment. Refer to the appropriate Eaton UPS instruction and operation manual for other requirements related to securing power cables.

4.4 9395 Floor Plan Securing Dimensions

[Figure 10](#) through [Figure 24](#) detail the measurements for attaching the 9395 seismic brackets to the floor of the building. The drawings are for reference only and are not to scale. Dimension are in millimeters (inches).

Figure 10. 9395 275 kVA UPS Seismic Mounting Dimensions

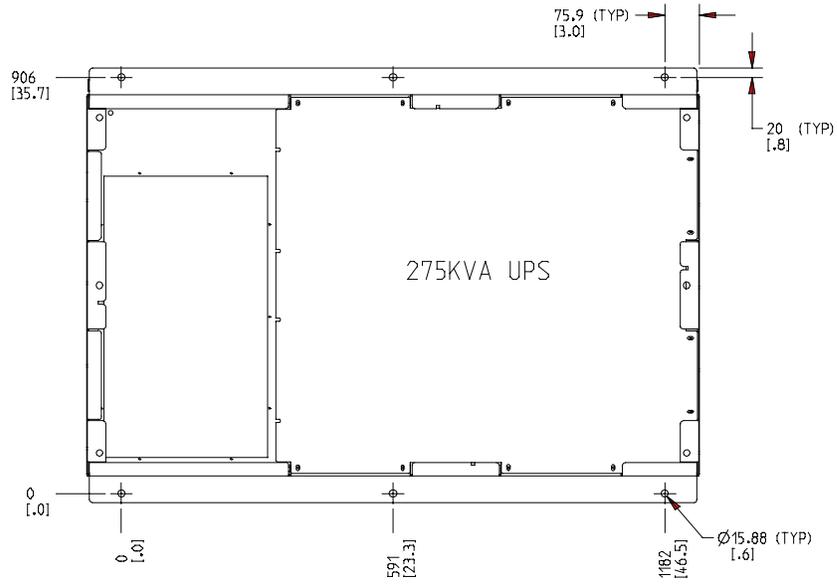


Figure 11. 9395 275 kVA UPS and FI-UPM Seismic Mounting Dimensions

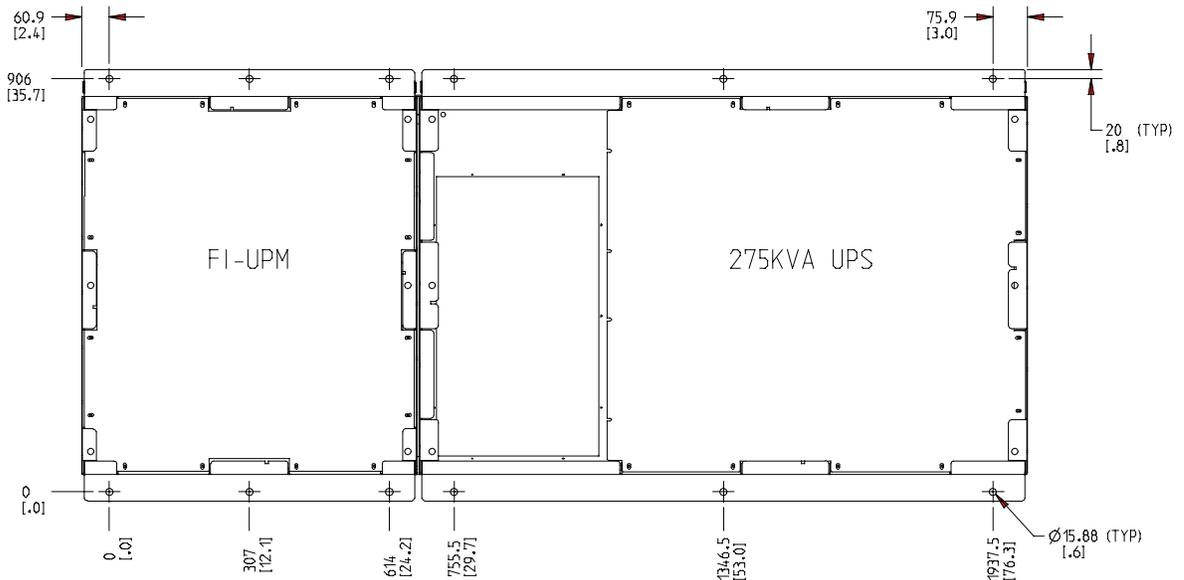


Figure 12. 9395 550 kVA UPS Seismic Mounting Dimensions

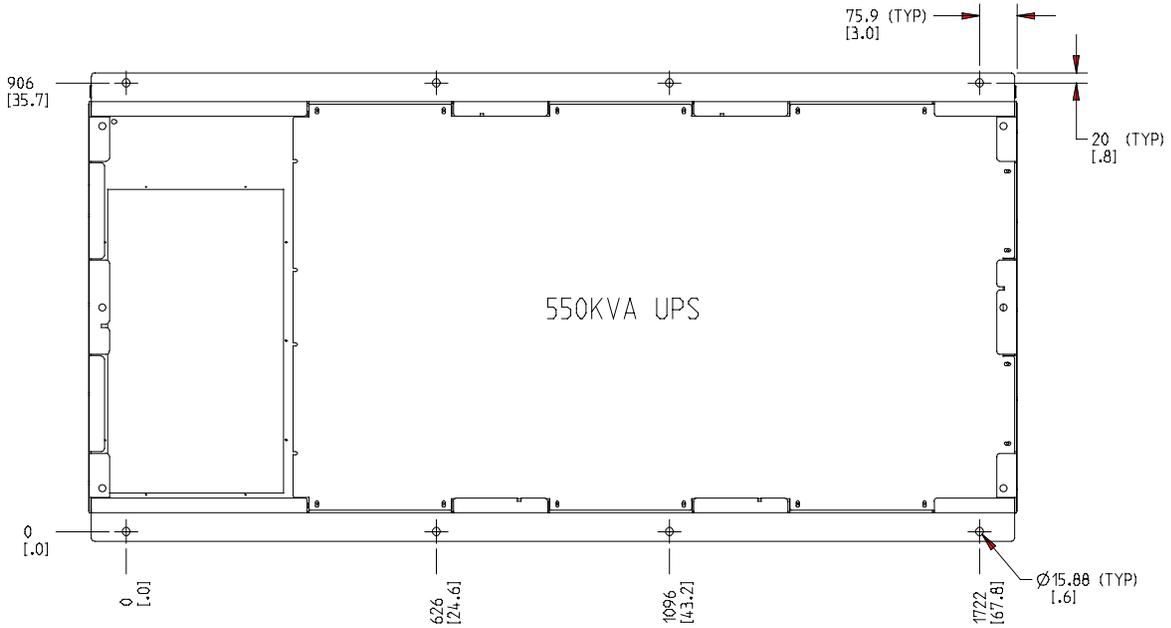


Figure 13. 9395 550 kVA UPS and FI-UPM Seismic Mounting Dimensions

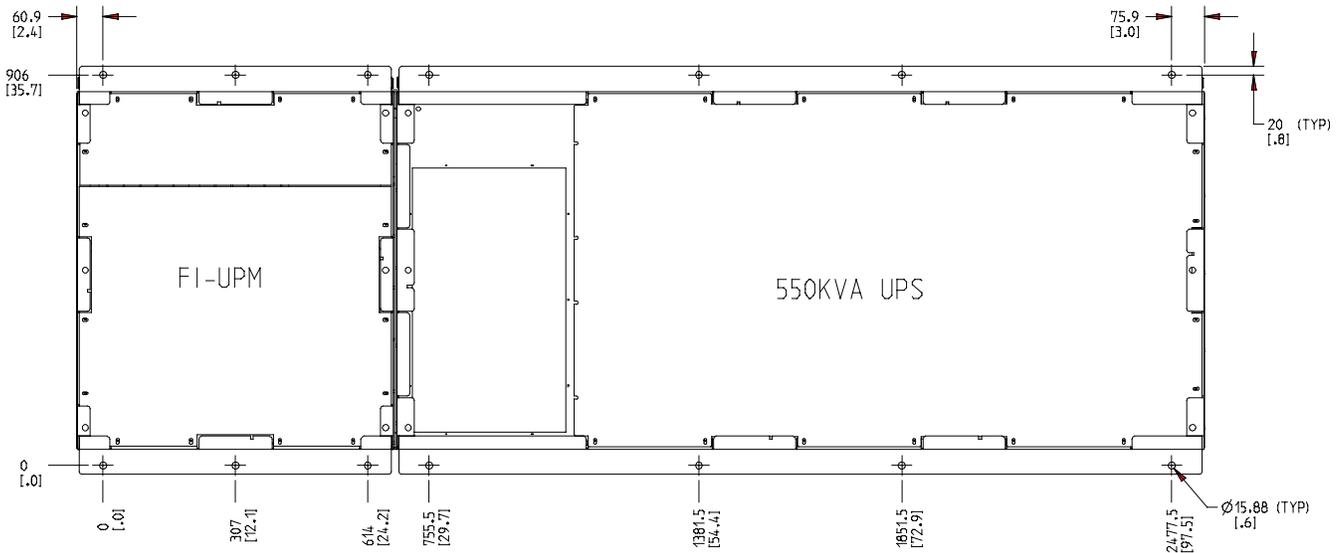


Figure 14. 9395 825 kVA UPS Seismic Mounting Dimensions

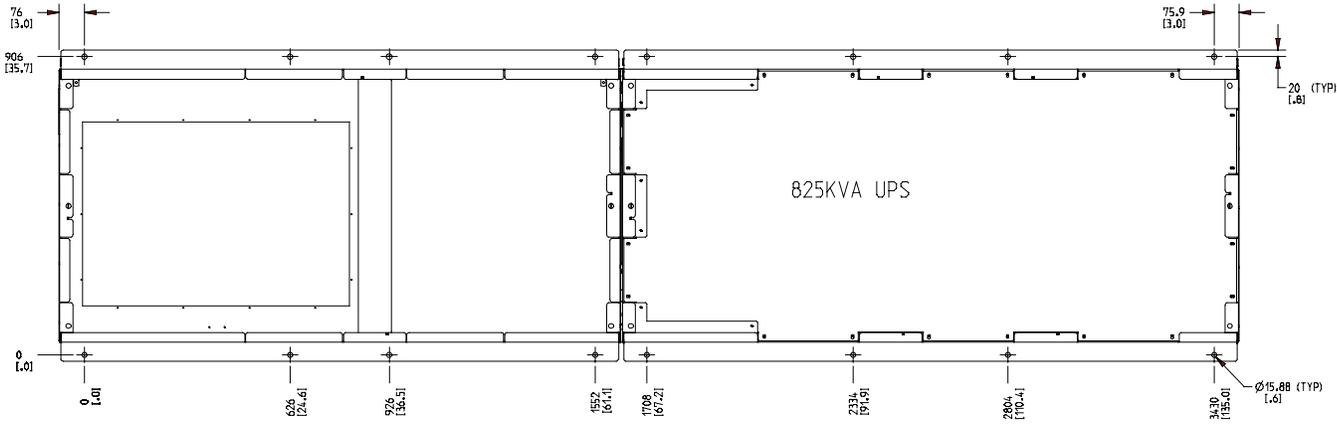


Figure 15. 9395 825 kVA UPS (2X-UPM) Seismic Mounting Dimensions

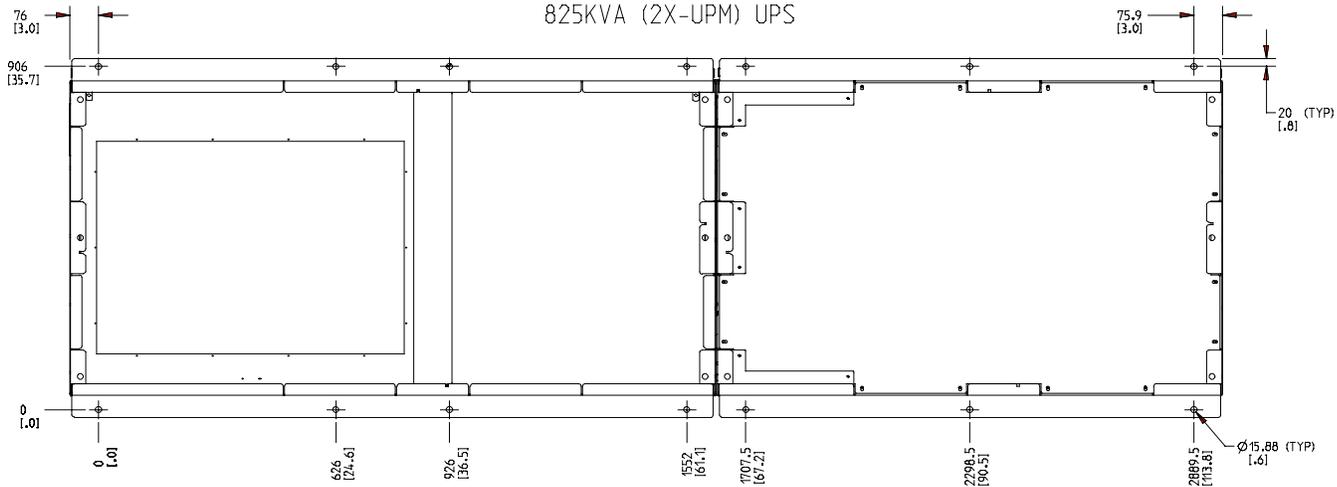


Figure 16. 9395 825 kVA UPS (2X-UPM and FI-UPM) Seismic Mounting Dimensions

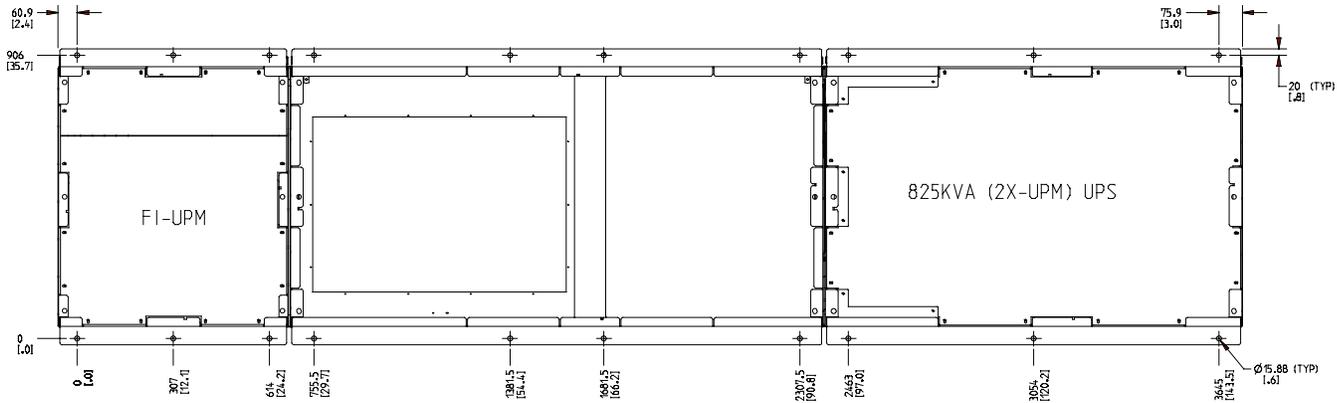


Figure 17. 9395 1100 kVA UPS or 825 kVA +1 UPS Seismic Mounting Dimensions

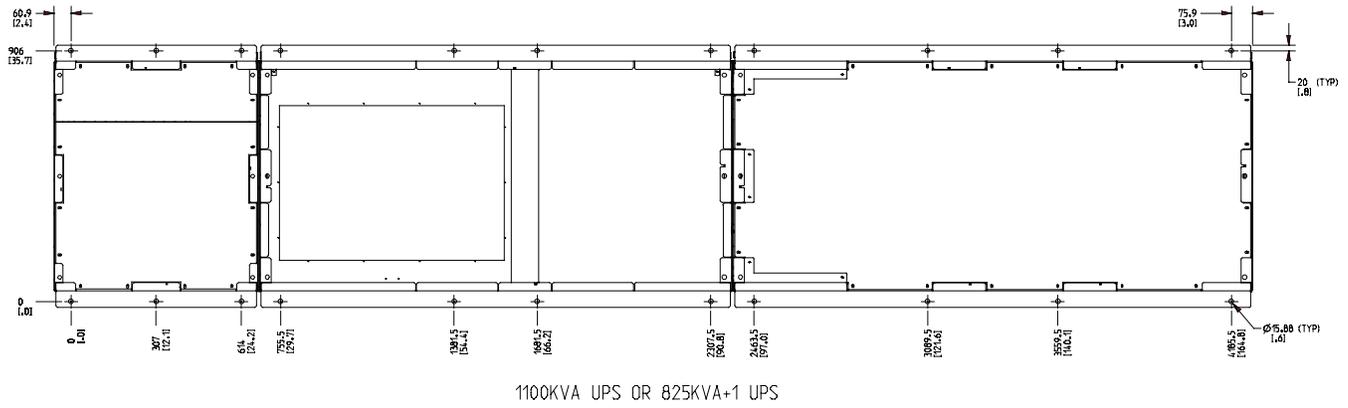


Figure 18. 9395 MBM Seismic Mounting Dimensions

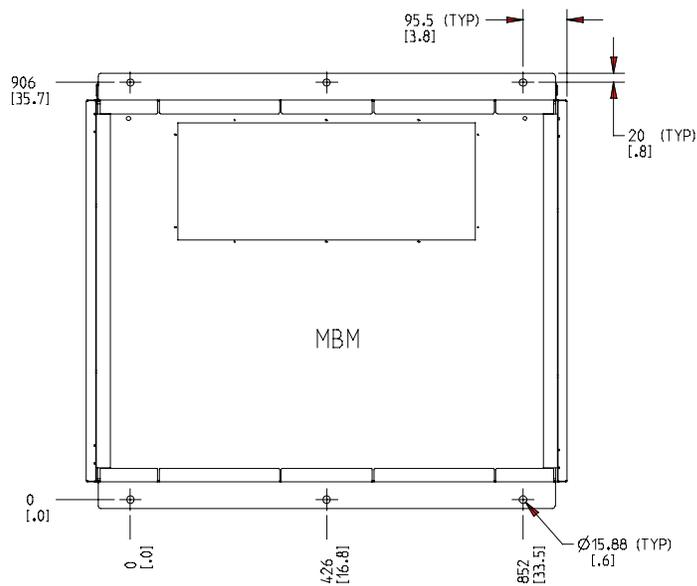


Figure 19. 9395 MBM and 275 kVA UPS Seismic Mounting Dimensions

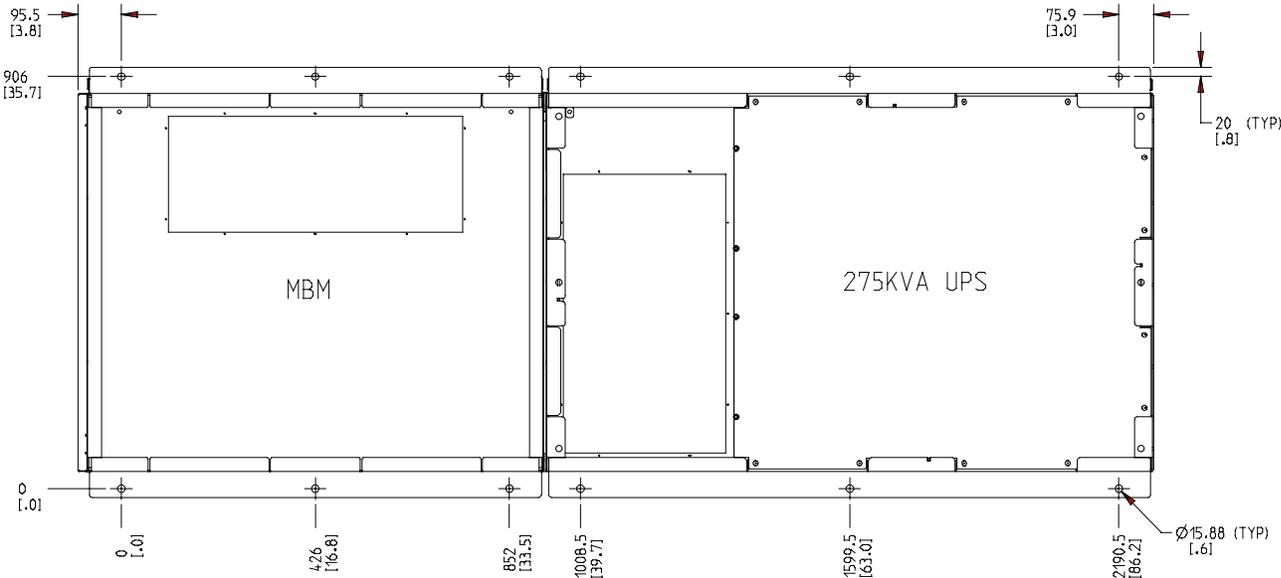


Figure 20. 9395 MBM and 550 kVA UPS Seismic Mounting Dimensions

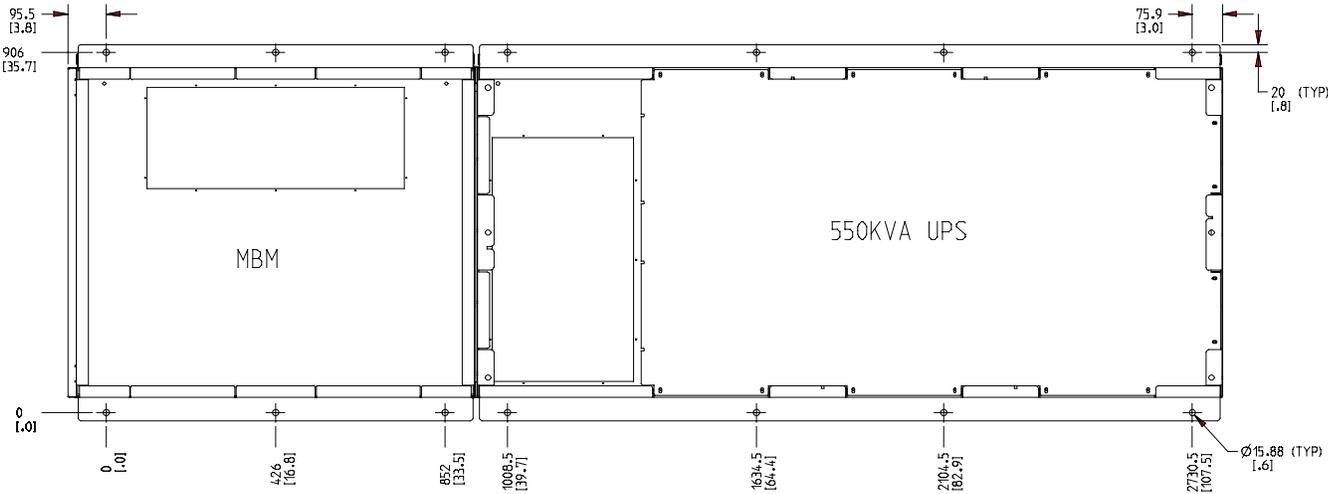


Figure 21. 9395 Seismic Door Securing Hardware Detail

INSTALL DOOR BRACKET KIT 103008371
USING M4 SCREWS P/N 180190118-015
QTY 2 FOR 9395 825/1100 I/O CABINET
QTY 1 FOR 9395 275, 550, MBM, OR 9390 IAC TIE CABINET

THUMB SCREW MUST BE IN PLACE TO
SECURE DOOR FOR SEISMIC EVENT

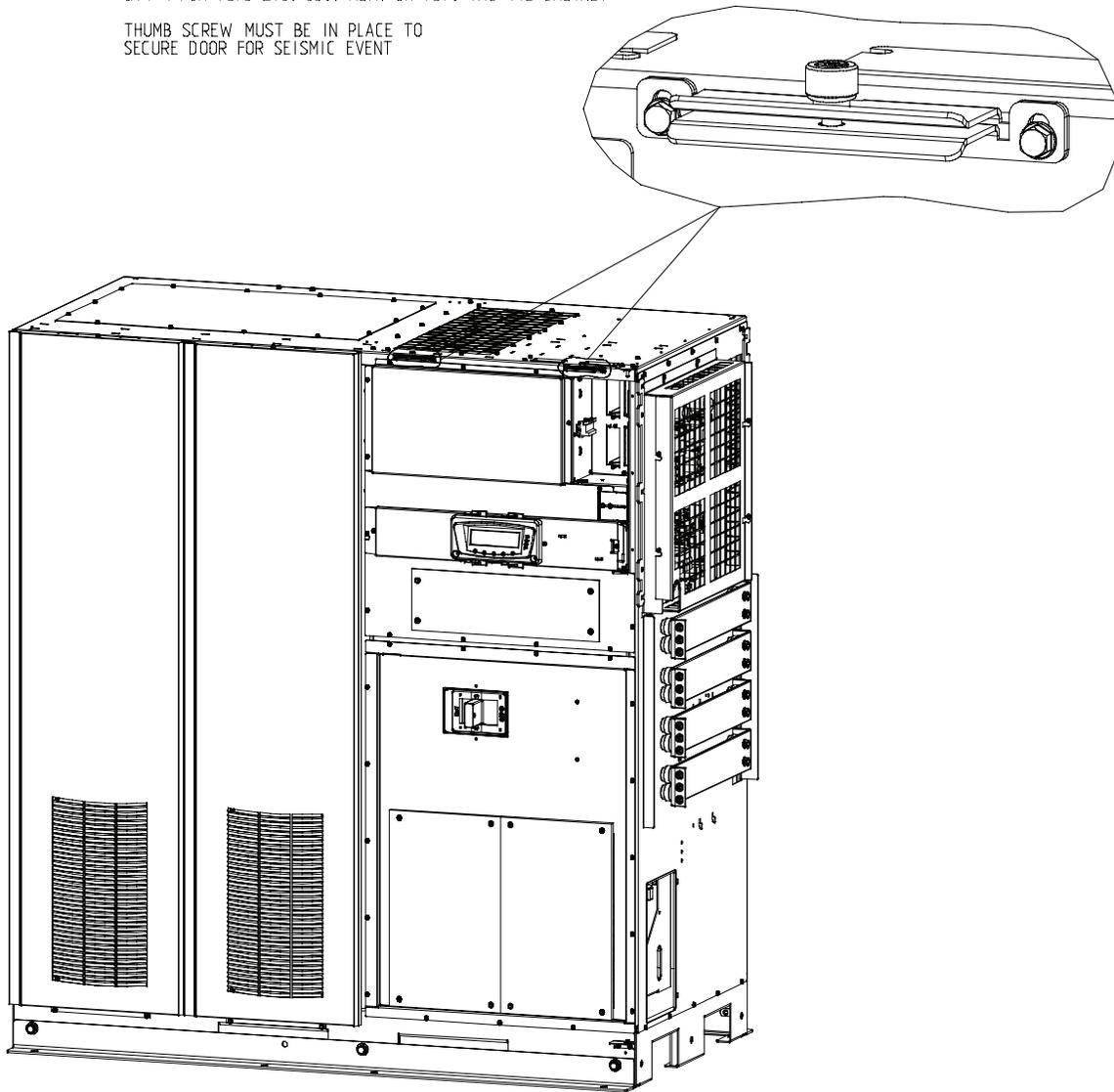


Figure 22. 9395 I/O Intercabinet Shim Location and Seismic Floor Bracket Attachment Detail

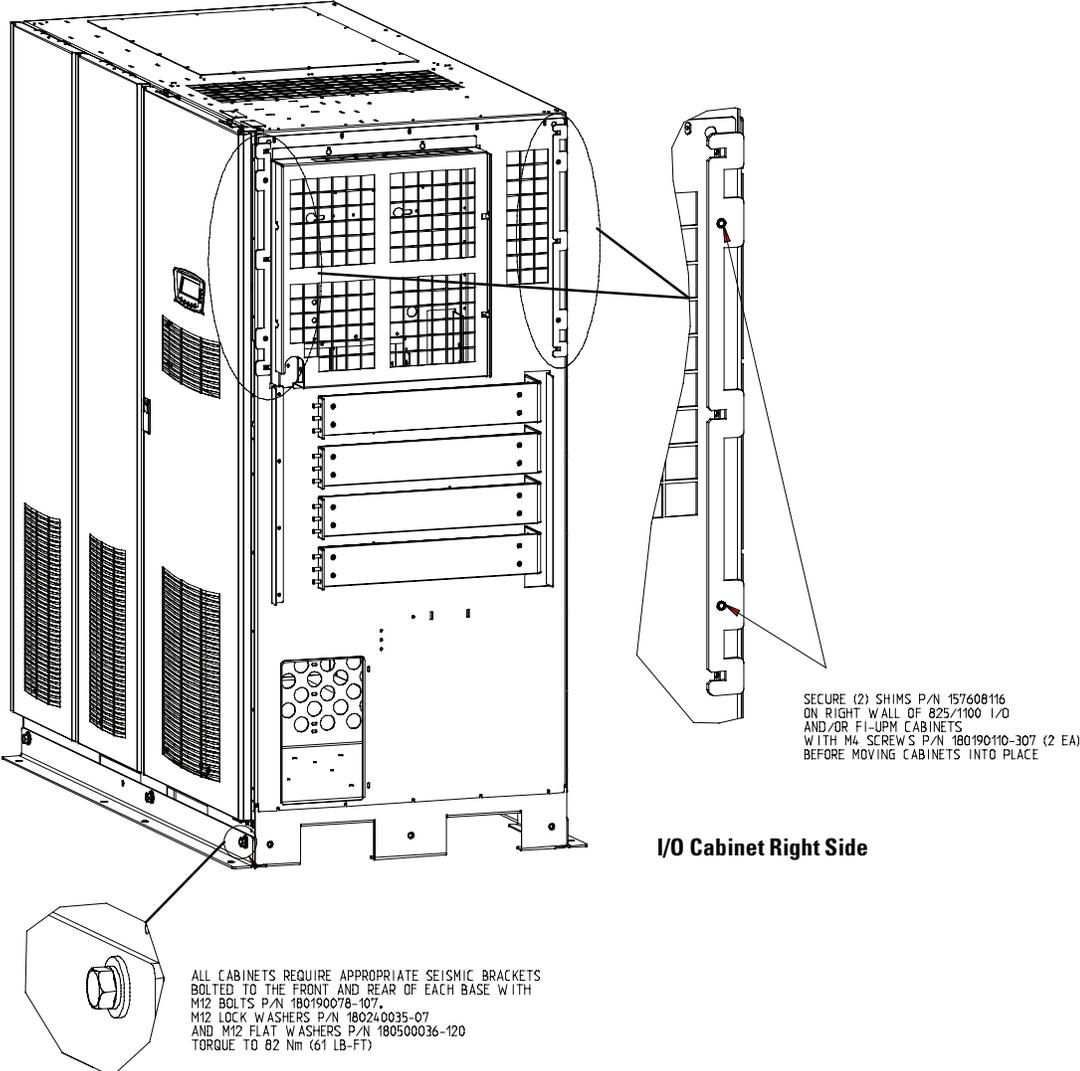


Figure 23. 9395 FI-UPM Shim Location Detail for Seismic Kit

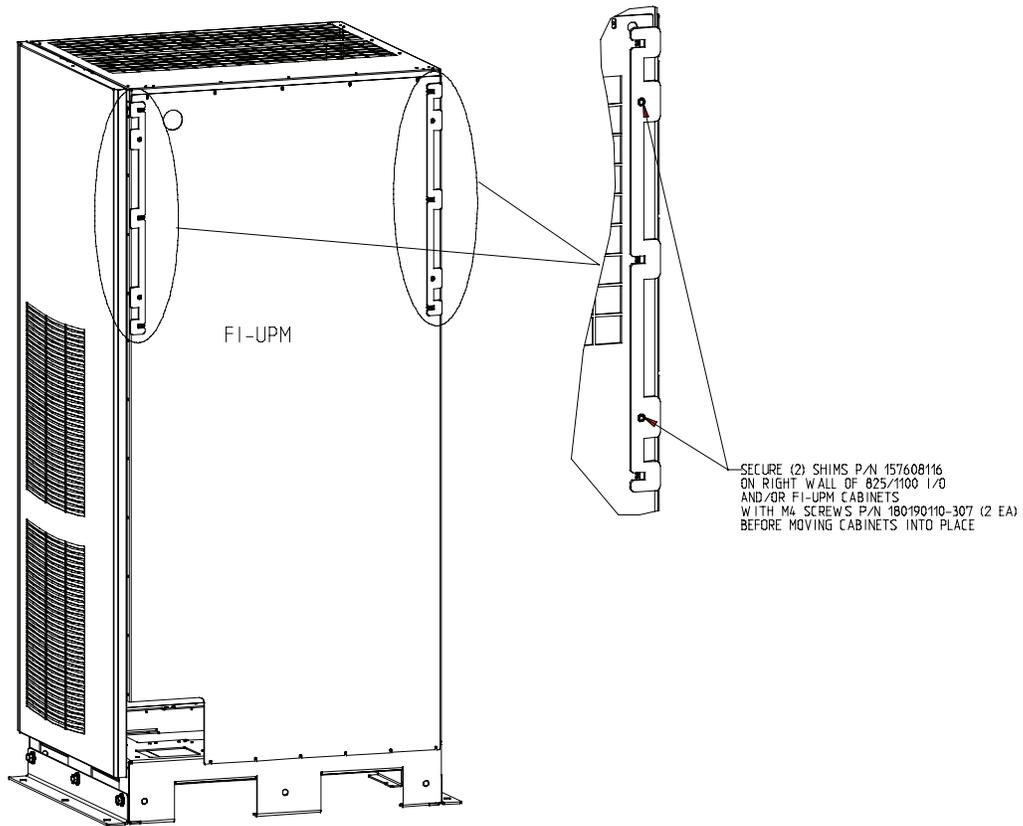
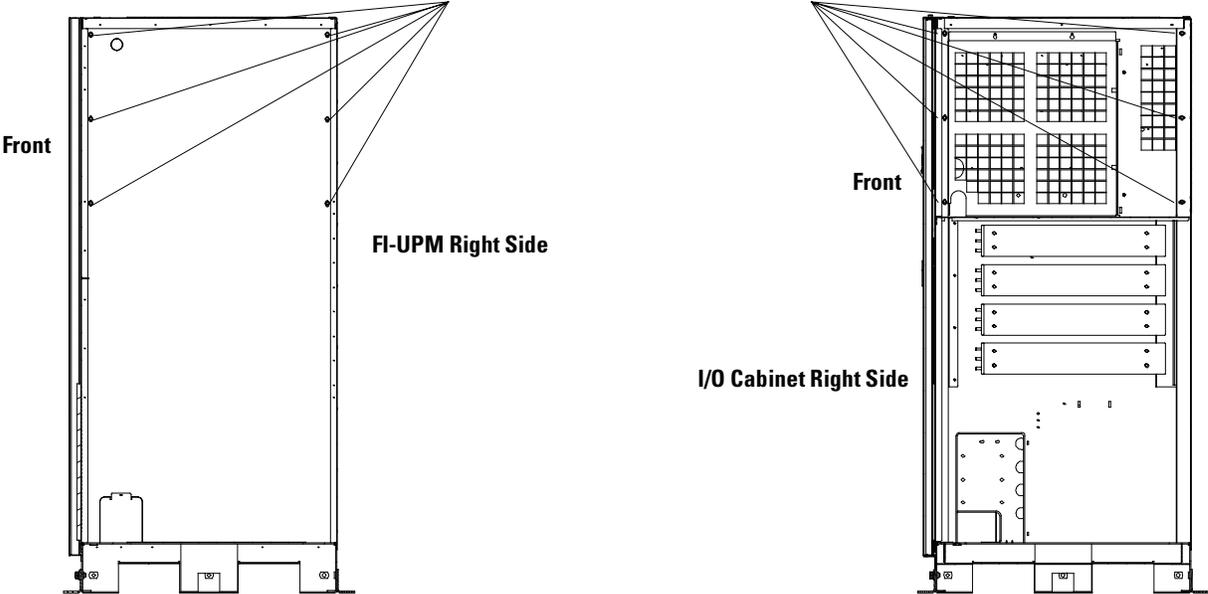


Figure 24. 9395 Attachment Detail for FI-UPM and I/O Module

AFTER MOVING ALL CABINETS INTO PLACE
BOLT TOGETHER WITH PROVIDED
M6 BOLTS P/N 180190109-017 (6 PER CABINET PAIR) AND
M6 NUTS 180200005-002 (6 FOR FI-UPM, 3 FOR B25/1100 I/O)



Chapter 5 Eaton 93PM Foundation Plan and Mounting Requirements

Proper mounting of the equipment is the single most important factor in withstanding a seismic event. The foundation must be level and continuous under the entire assembly. The foundation must be designed to withstand the reaction loads imposed on it by the equipment during a seismic event. At a minimum, the foundation must be designed to accommodate the tensile strength of the hardware indicated in [Table 10](#). The anchoring system should be put in place prior to equipment installation to reduce effort associated with anchoring. Welding to embedded steel members is acceptable provided the strength of the welds is comparable to the mounting bolts.

CAUTION

The user is responsible for compliance with all local seismic codes.



NOTE

Anchoring hardware is not provided with Eaton seismic mounting kits because the type of hardware is dependant on the foundation construction and composition.

Table 10. 93PM Unit and Fastener Requirements from Unit to Floor

Type	Bolt Type and Size	Torque	Quantity
UPS 50 kW, 100 kW, and 150 kW Capacity Frames	Class 8.8, M12 or Grade 5, 1/2"	66 Nm 64 lb-ft.	8
UPS 50 kW, 100 kW, and 150 kW Capacity Frames with Small Left-Mounted Sidecar	Class 8.8, M12 or Grade 5, 1/2"	66 Nm 64 lb-ft.	12
UPS 50 kW, 100 kW, and 150 kW Capacity Frames with Small Right-Mounted Sidecar	Class 8.8, M12 or Grade 5, 1/2"	66 Nm 64 lb-ft.	12
UPS 100 kW and 150 kW Capacity Frames with Large Left-Mounted Sidecar	Class 8.8, M12 or Grade 5, 1/2"	66 Nm 64 lb-ft.	12
UPS 100 kW and 150 kW Capacity Frames with Large Right-Mounted Sidecar	Class 8.8, M12 or Grade 5, 1/2"	66 Nm 64 lb-ft.	12
UPS 200 kW Frame	Class 8.8, M12 or Grade 5, 1/2"	66 Nm 64 lb-ft.	8
UPS 200 kW Frame with Left-Mounted Sidecar	Class 8.8, M12 or Grade 5, 1/2"	66 Nm 64 lb-ft.	12
UPS 200 kW Frame with Right-Mounted Sidecar	Class 8.8, M12 or Grade 5, 1/2"	66 Nm 64 lb-ft.	12
UPS 400 kW Frame	Class 8.8, M12 or Grade 5, 1/2"	66 Nm 64 lb-ft.	16
IBC-S	Class 8.8, M12 or Grade 5, 1/2"	66 Nm 64 lb-ft.	8
IBC-L, IBC-L(H)	Class 8.8, M12 or Grade 5, 1/2"	66 Nm 64 lb-ft.	8
IBC-L, IBC-L(H) with Left-Mounted Sidecar	Class 8.8, M12 or Grade 5, 1/2"	66 Nm 64 lb-ft.	12

Table 10. 93PM Unit and Fastener Requirements from Unit to Floor (Continued)

Type	Bolt Type and Size	Torque	Quantity
IBC-L, IBC-L(H) with Right-Mounted Sidecar	Class 8.8, M12 or Grade 5, 1/2"	66 Nm 64 lb-ft.	12
IBC-LW, IBC-LW(H)	Class 8.8, M12 or Grade 5, 1/2"	66 Nm 64 lb-ft.	12
IAC-D	Class 8.8, M12 or Grade 5, 1/2"	66 Nm 64 lb-ft.	8
IAC-T	Class 8.8, M12 or Grade 5, 1/2"	66 Nm 64 lb-ft.	8

5.1 Displacement

The horizontal displacement of the top of the equipment is listed in [Table 11](#). The horizontal displacements given in the table are plus/minus values. The equipment must be at the minimum distance listed in the table to avoid contact with other stationary objects during a seismic event.

Table 11. 93PM Unit Seismic Displacement Requirements

Type	Front to Back	Side to Side
UPS 50 kW, 100 kW, and 150 kW Capacity Frames	130 mm	180 mm
UPS 50 kW, 100 kW, and 150 kW Capacity Frames with Small Left-Mounted Sidecar	120 mm	140 mm
UPS 50 kW, 100 kW, and 150 kW Capacity Frames with Small Right-Mounted Sidecar	120 mm	140 mm
UPS 100 kW and 150 kW Capacity Frames with Large Left-Mounted Sidecar	120 mm	140 mm
UPS 100 kW and 150 kW Capacity Frames with Large Right-Mounted Sidecar	120 mm	140 mm
UPS 200 kW Frame	130 mm	180 mm
UPS 200 kW Frame with Left-Mounted Sidecar	120 mm	140 mm
UPS 200 kW Frame with Right-Mounted Sidecar	120 mm	140 mm
UPS 400 kW Frame	94 mm	112 mm
IBC-S	100 mm	160 mm
IBC-L, IBC-L(H)	100 mm	160 mm
IBC-L, IBC-L(H) with Left-Mounted Sidecar	90 mm	100 mm
IBC-L, IBC-L(H) with Right-Mounted Sidecar	90 mm	100 mm
IBC-LW, IBC-LW(H)	94 mm	122 mm
IAC-D	100 mm	100 mm
IAC-T	100 mm	100 mm

Consideration must be given to attachments (conduits, bus duct, etc.) made to the top of the equipment. Attachments must have provisions to accommodate the displacement of the equipment indicated in [Table 11](#). Entry from the bottom of the equipment eliminates the need for accommodating this motion for attachments.

5.2 Center of Gravity

For seismic calculations, the center of gravity can be approximated using the dimensions in [Table 12](#) with respect to the left side bracket's front mounting hole (x,y,z origin). Battery cabinet center of gravity dimensions are with batteries installed.

Table 12. 93PM Unit Center of Gravity Specifications

Type	X (left to right)	Y (front to rear)	Z (bottom to top)
UPS 50 kW Capacity Frames	538 mm	278 mm	887 mm
UPS 50 kW Capacity Frames with Small Right-Mounted Sidecar	551 mm	318 mm	888 mm
UPS 50 kW Capacity Frames with Small Right-Mounted Sidecar	551 mm	318 mm	888 mm
UPS 100 kW Capacity Frames	537 mm	278 mm	921 mm
UPS 100 kW Capacity Frames with Small Left-Mounted Sidecar	564 mm	402 mm	917 mm
UPS 100 kW Capacity Frames with Small Right-Mounted Sidecar	564 mm	356 mm	917 mm
UPS 100 kW Capacity Frames with Large Left-Mounted Sidecar	552 mm	543 mm	922 mm
UPS 100 kW Capacity Frames with Large Right-Mounted Sidecar	552 mm	386 mm	922 mm
UPS 150 kW Capacity Frames	530 mm	282 mm	1014 mm
UPS 150 kW Capacity Frames with Small Left-Mounted Sidecar	534 mm	434 mm	979 mm
UPS 150 kW Capacity Frames with Small Right-Mounted Sidecar	534 mm	332 mm	979 mm
UPS 150 kW Capacity Frames with Large Left-Mounted Sidecar	549 mm	523 mm	977 mm
UPS 150 kW Capacity Frames with Large Right-Mounted Sidecar	549 mm	402 mm	977 mm
UPS 200 kW Frame	543 mm	358 mm	989 mm
UPS 200 kW Frame with Left-Mounted Sidecar	566 mm	594 mm	973 mm
UPS 200 kW Frame with Right-Mounted Sidecar	566 mm	522 mm	974 mm
UPS 400 kW Frame	810 mm	549 mm	1006 mm
IBC-S	579 mm	262 mm	814 mm
IBC-L, IBC-L(H) (432V)	427 mm	600 mm	1046 mm
IBC-L, IBC-L(H) (480V)	410 mm	600 mm	1046 mm
IBC-L, IBC-L(H) (432V) with Left-Mounted Sidecar	612 mm	600 mm	1046 mm

Table 12. 93PM Unit Center of Gravity Specifications (Continued)

Type	X (left to right)	Y (front to rear)	Z (bottom to top)
IBC-L, IBC-L(H) (480V) with Left-Mounted Sidecar	602 mm	600 mm	1046 mm
IBC-L, IBC-L(H) (432V) with Right-Mounted Sidecar	444 mm	600 mm	1046 mm
IBC-L, IBC-L(H) (480V) with Right-Mounted Sidecar	421 mm	600 mm	1046 mm
IBC-LW, IBC-LW(H) (432V)	456 mm	506 mm	1036 mm
IBC-LW, IBC-LW(H) (480V)	434 mm	507 mm	981 mm
IAC-D	473 mm	388 mm	698 mm
IAC-T	245 mm	659 mm	891 mm

5.3 Power Cables

It is recommended that power cables be lashed together at least every meter within the equipment. Refer to the appropriate Eaton UPS instruction and operation manual for other requirements related to securing power cables.

5.4 93PM Floor Plan Securing Dimensions

[Figure 25](#) through [Figure 40](#) detail the measurements for attaching the 93PM seismic brackets to the floor of the building. The drawings are for reference only and are not to scale. Dimension are in millimeters (inches).

Figure 25. 93PM UPS (50 kW, 100 kW, and 150 kW Capacity Frames) Seismic Mounting Dimensions

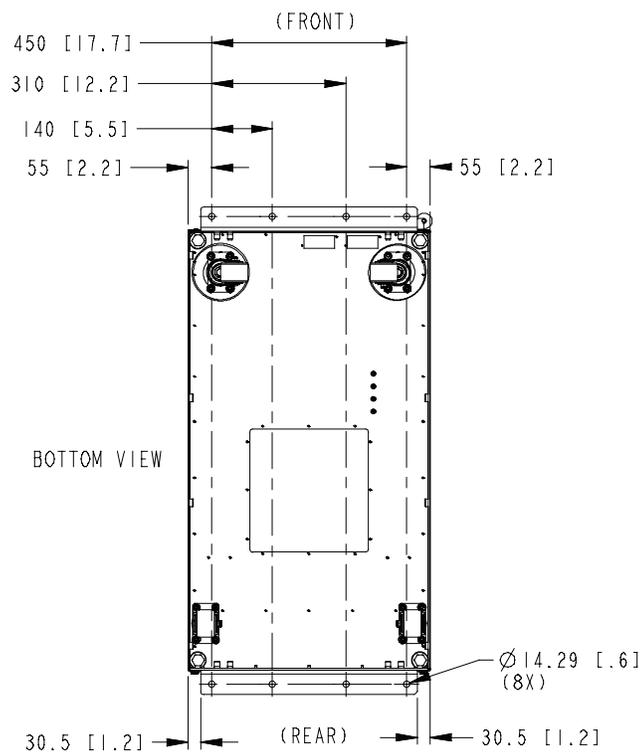
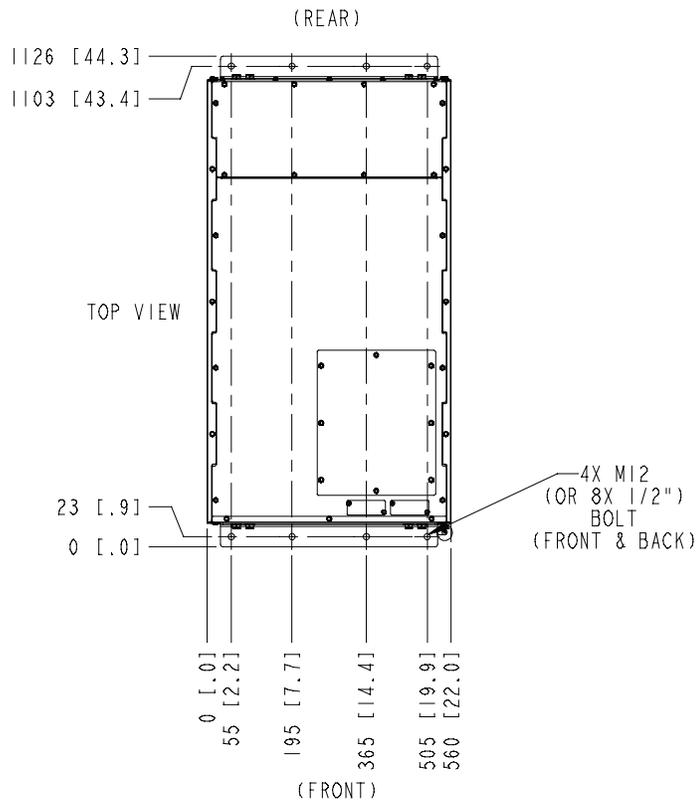


Figure 26. 93PM UPS (50 kW, 100 kW, and 150 kW Capacity Frames with Small Left-Mounted Sidecar)

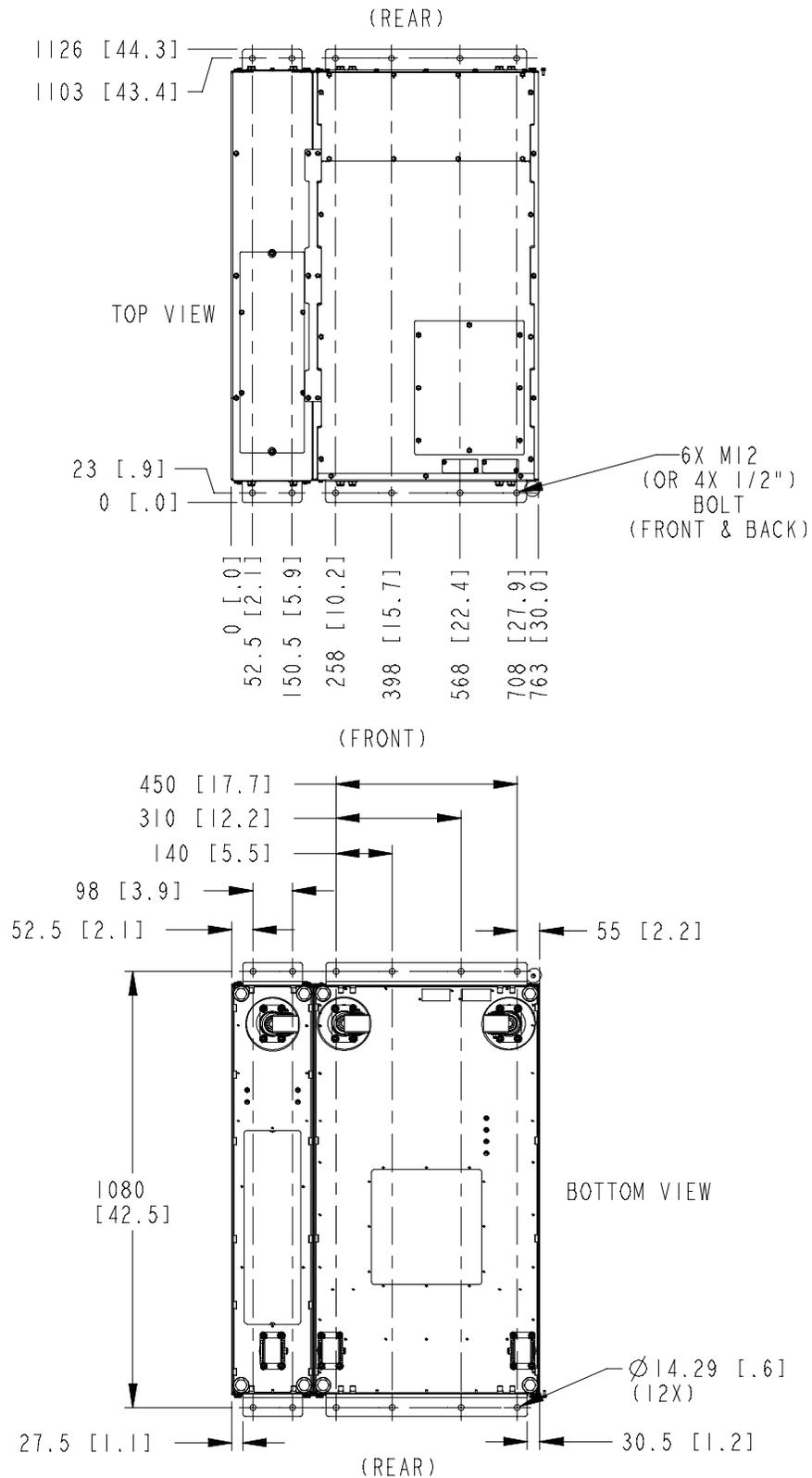


Figure 27. 93PM UPS (50 kW, 100 kW, and 150 kW Capacity Frames with Small Right-Mounted Sidecar)

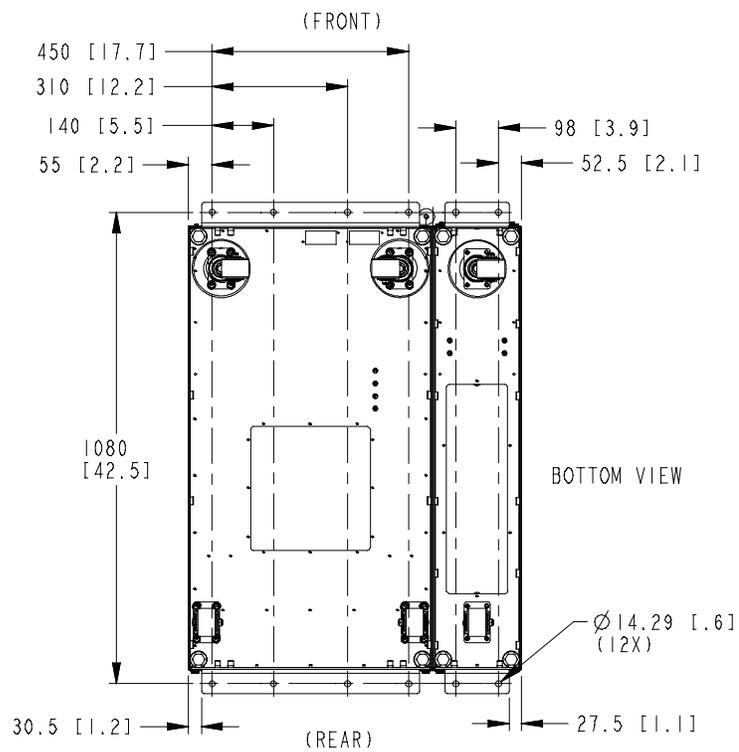
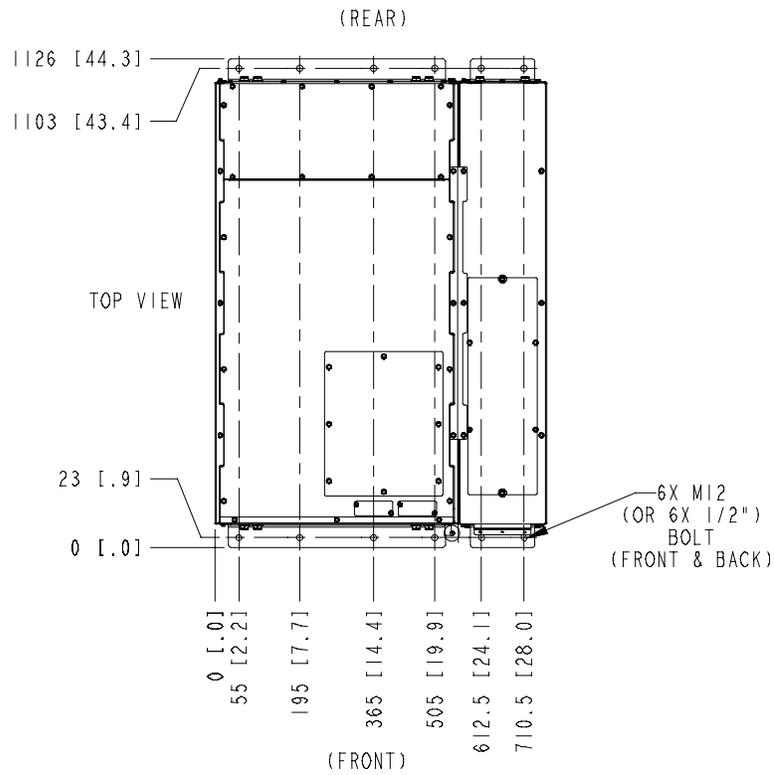


Figure 28. 93PM UPS (100 kW and 150 kW Capacity Frames with Large Left-Mounted Sidecar)

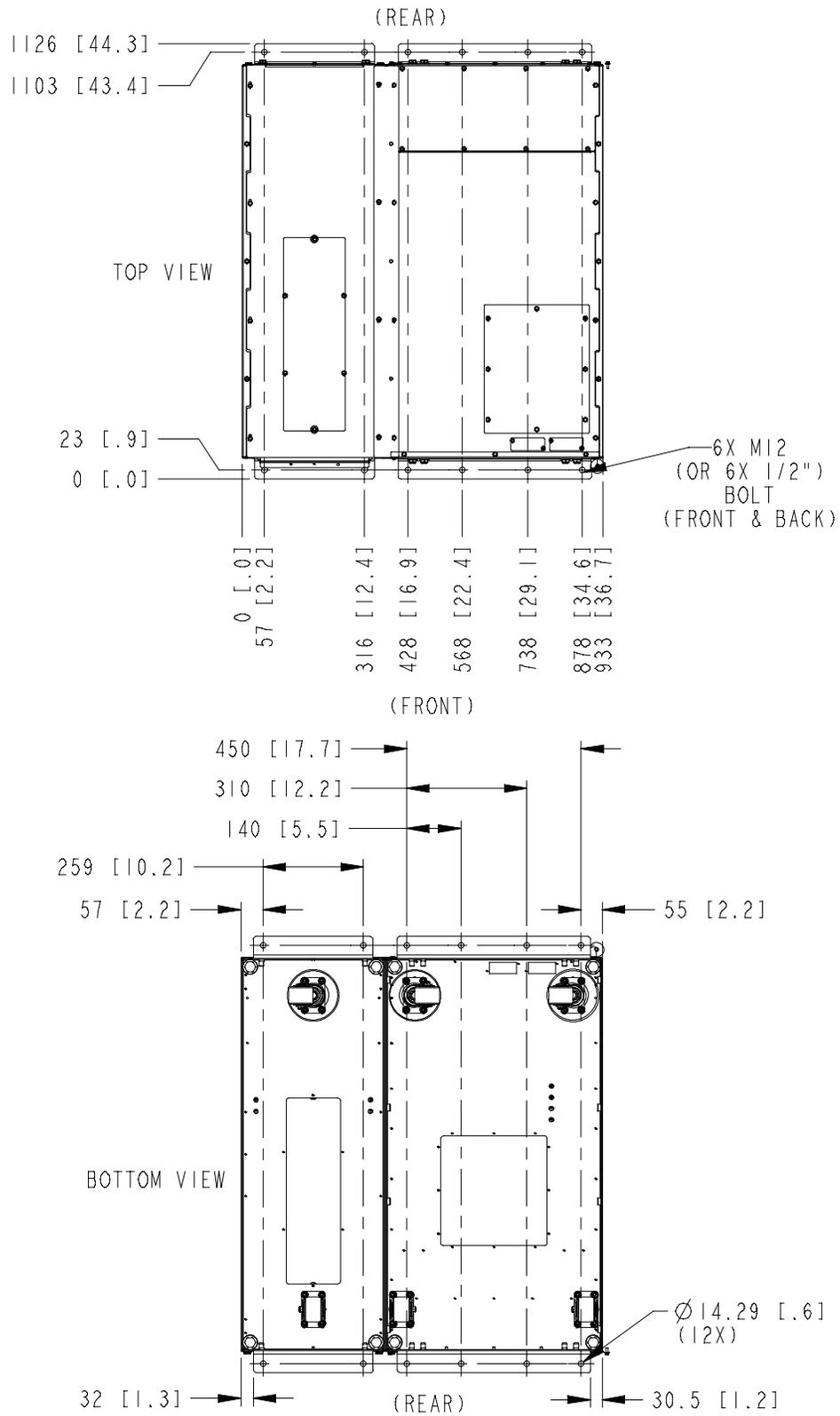


Figure 29. 93PM UPS (100 kW and 150 kW Capacity Frames with Large Right-Mounted Sidecar)

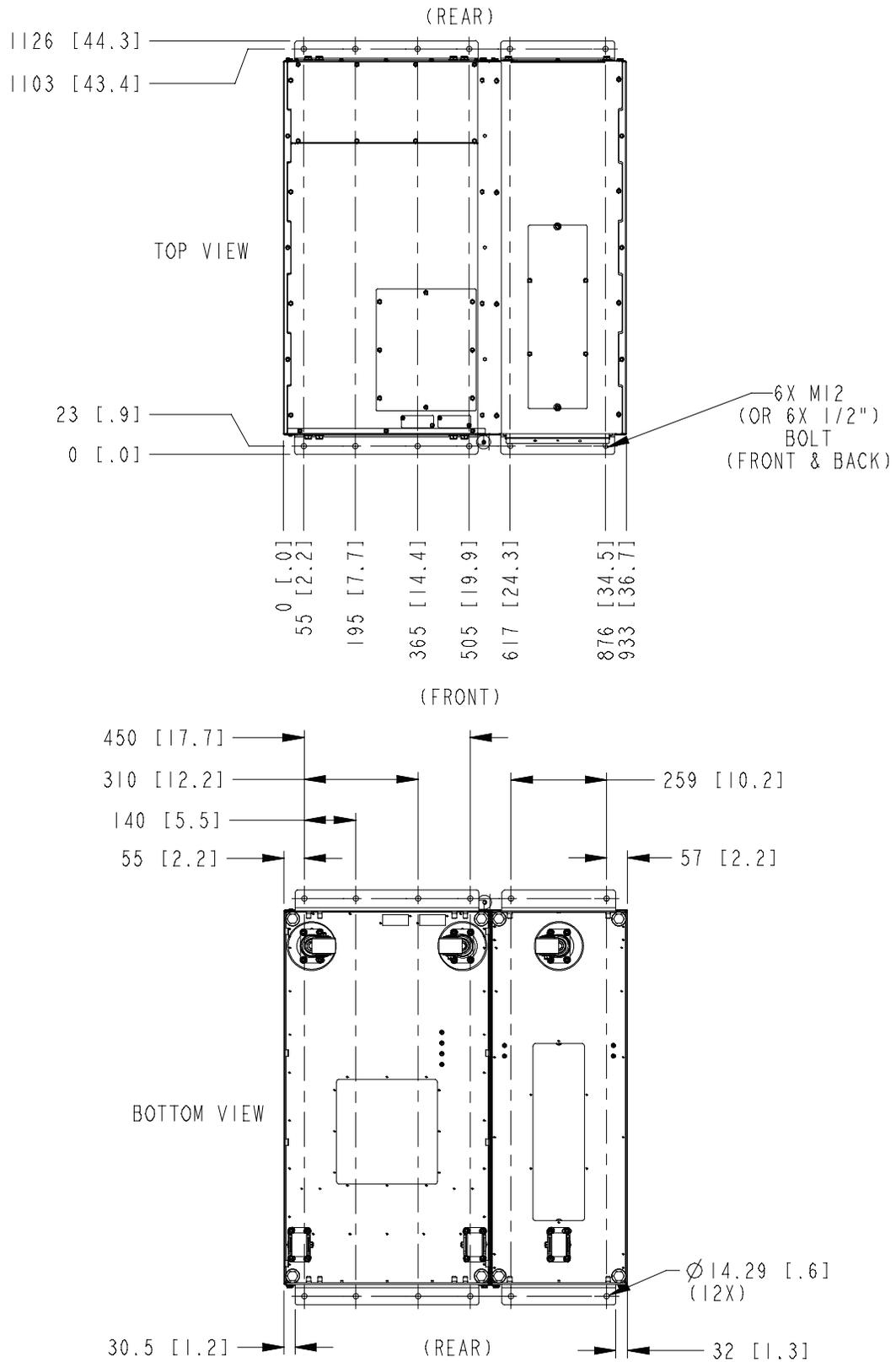


Figure 30. 93PM UPS (200 kW Frame) Seismic Mounting Dimensions

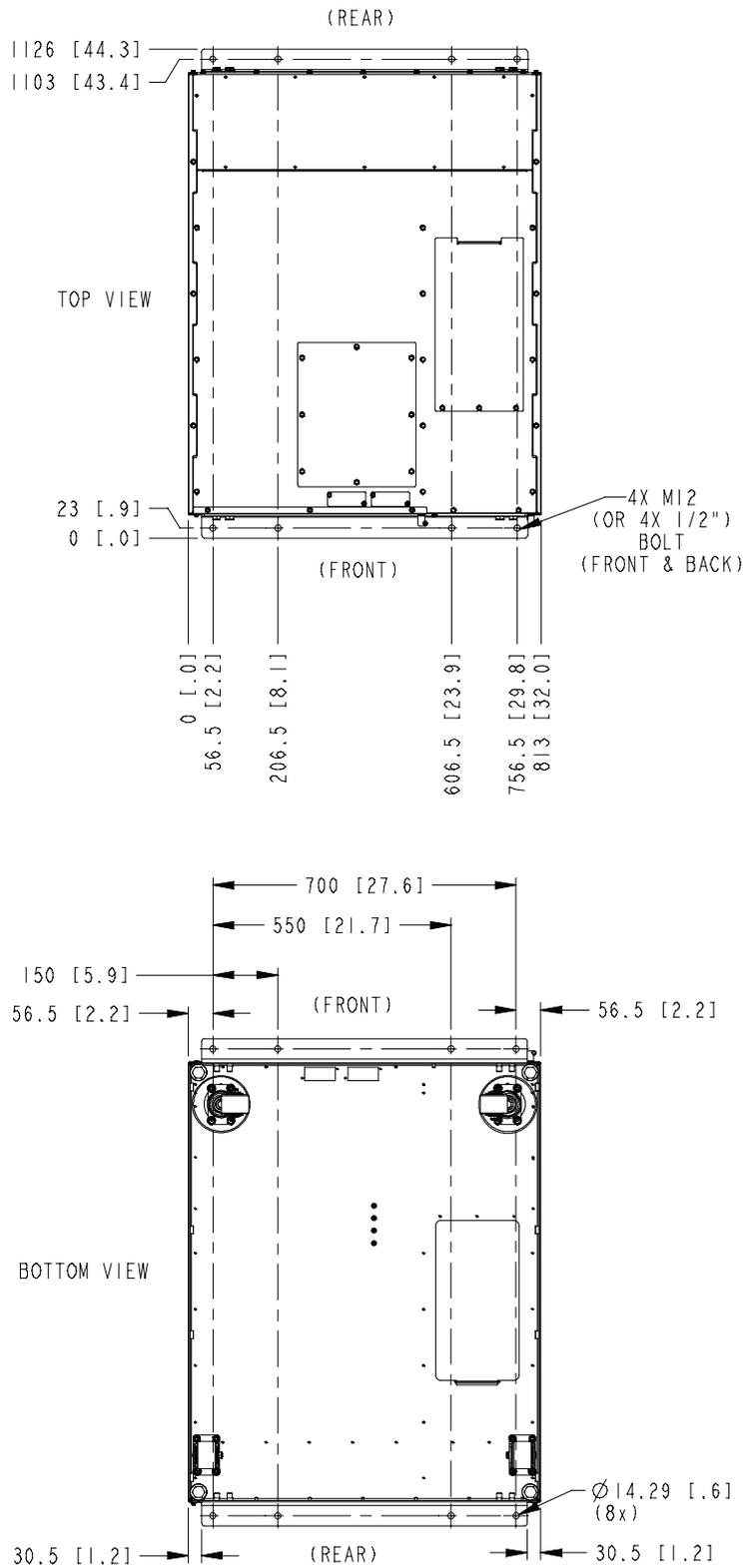


Figure 31. 93PM UPS (200 kW Frame with Left-Mounted Sidecar) Seismic Mounting Dimensions

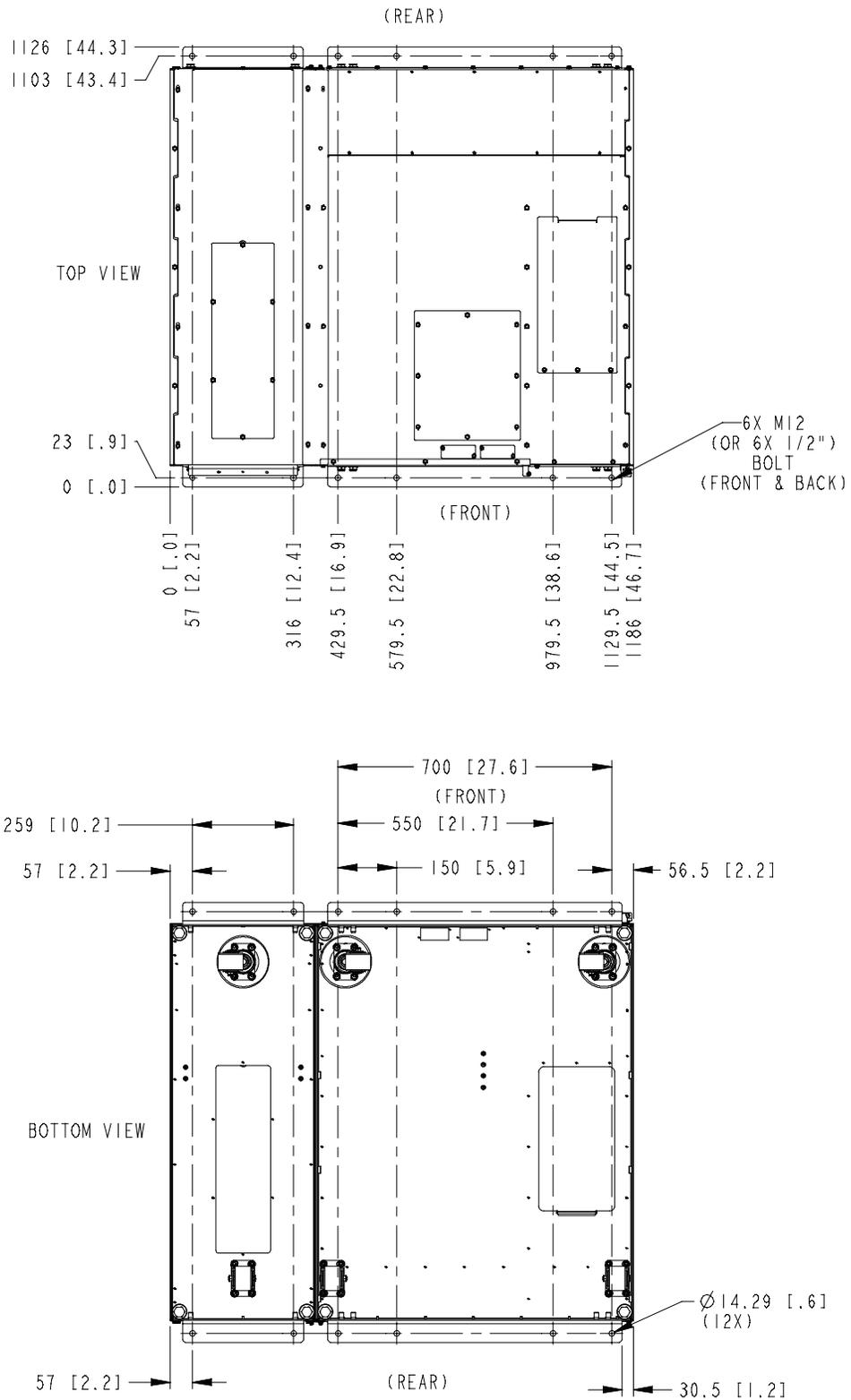


Figure 32. 93PM UPS (200 kW Frame with Right-Mounted Sidecar) Seismic Mounting Dimensions

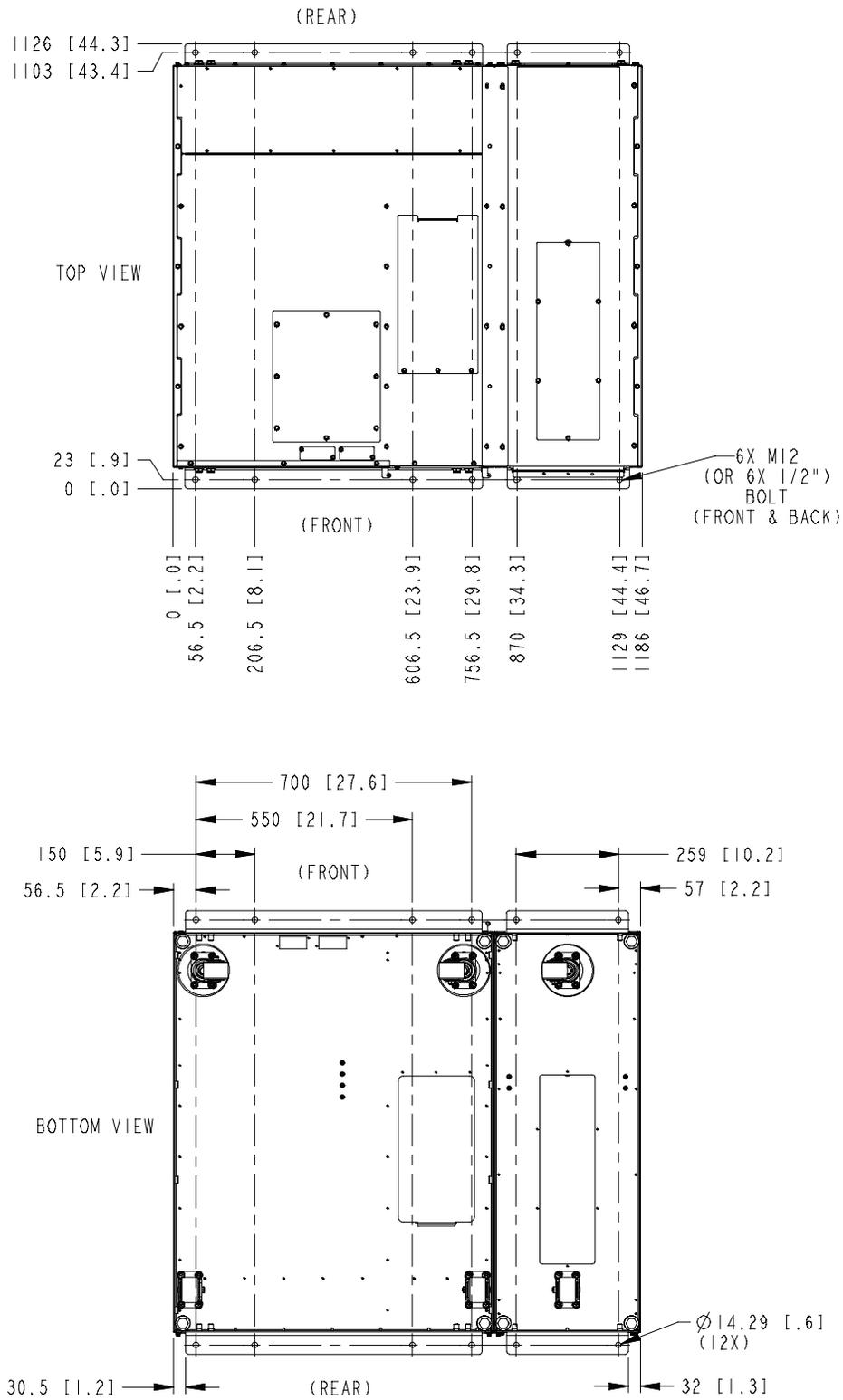


Figure 33. 93PM UPS (400 kW Frame)

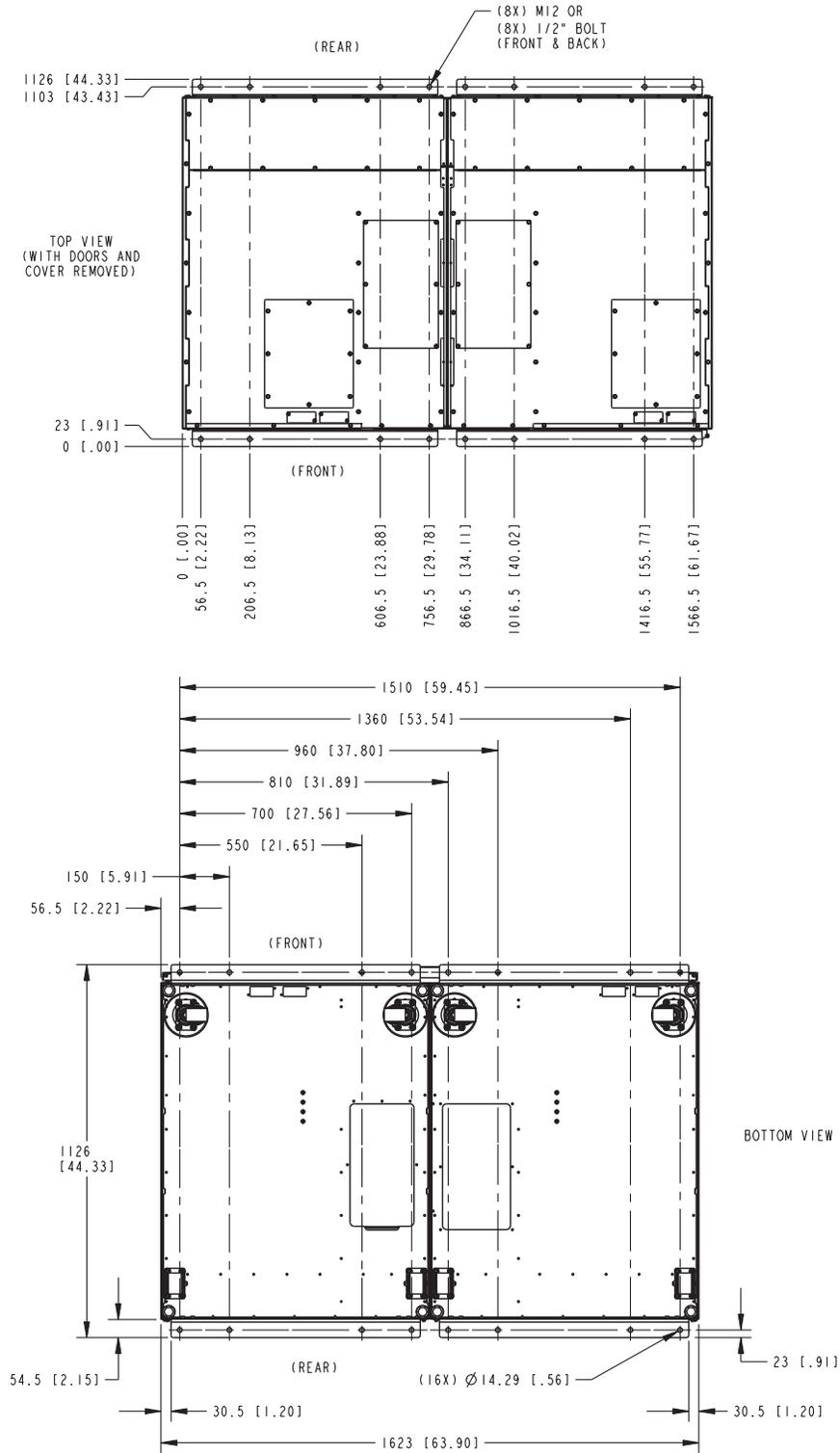


Figure 34. 93PM IBC-S Seismic Mounting Dimensions

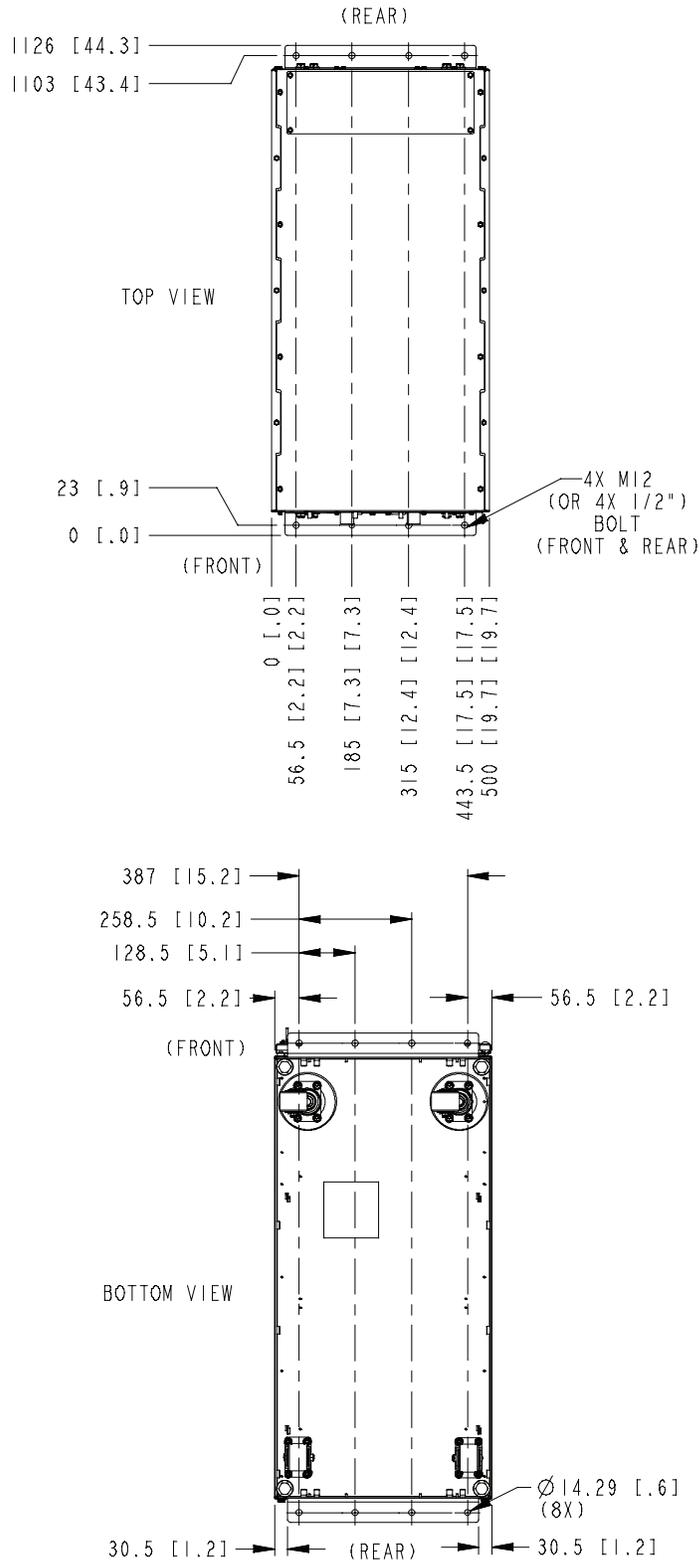


Figure 35. 93PM IBC-L and IBC-L(H) Seismic Mounting Dimensions

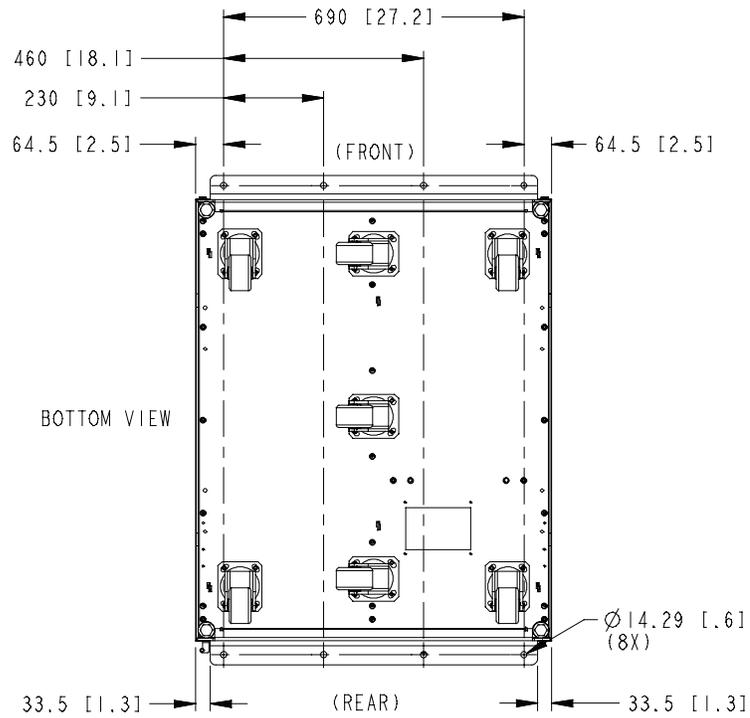
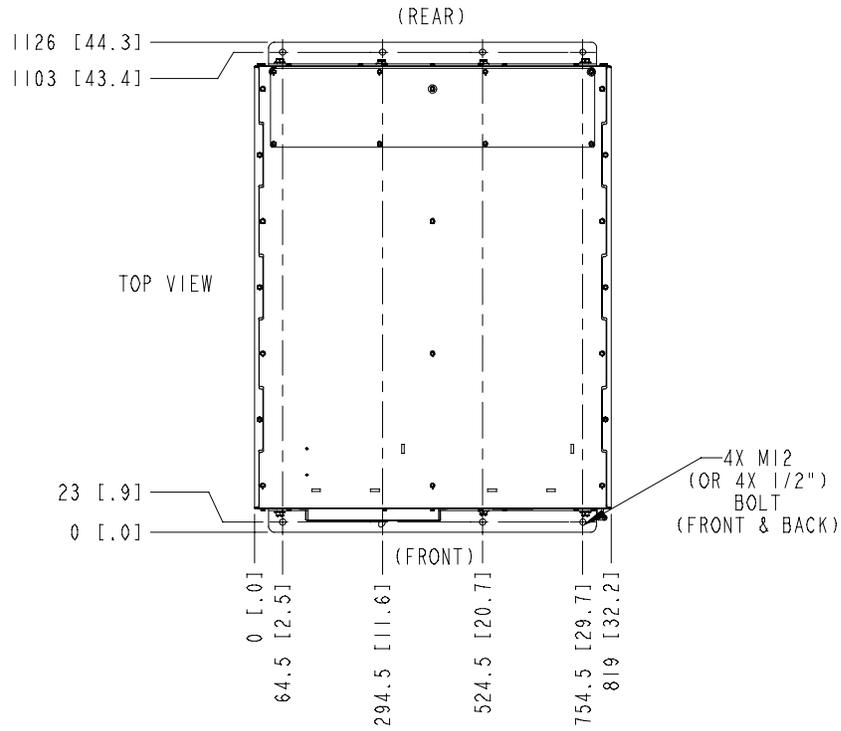


Figure 36. 93PM IBC-L and IBC-L(H) with Left-Mounted Sidecar Seismic Mounting Dimensions

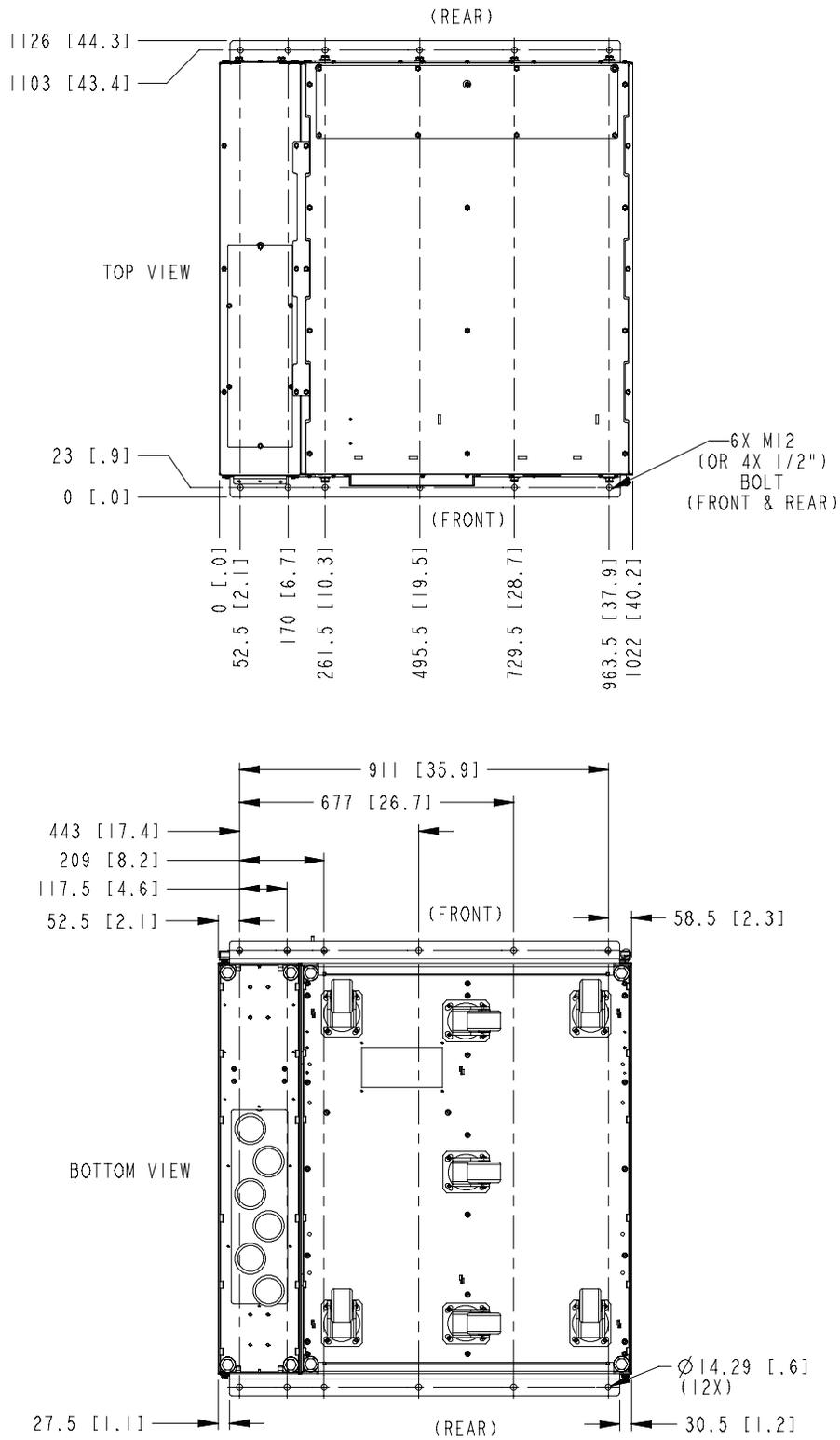


Figure 37. 93PM IBC-L and IBC-L(H) with Right-Mounted Sidecar Seismic Mounting Dimensions

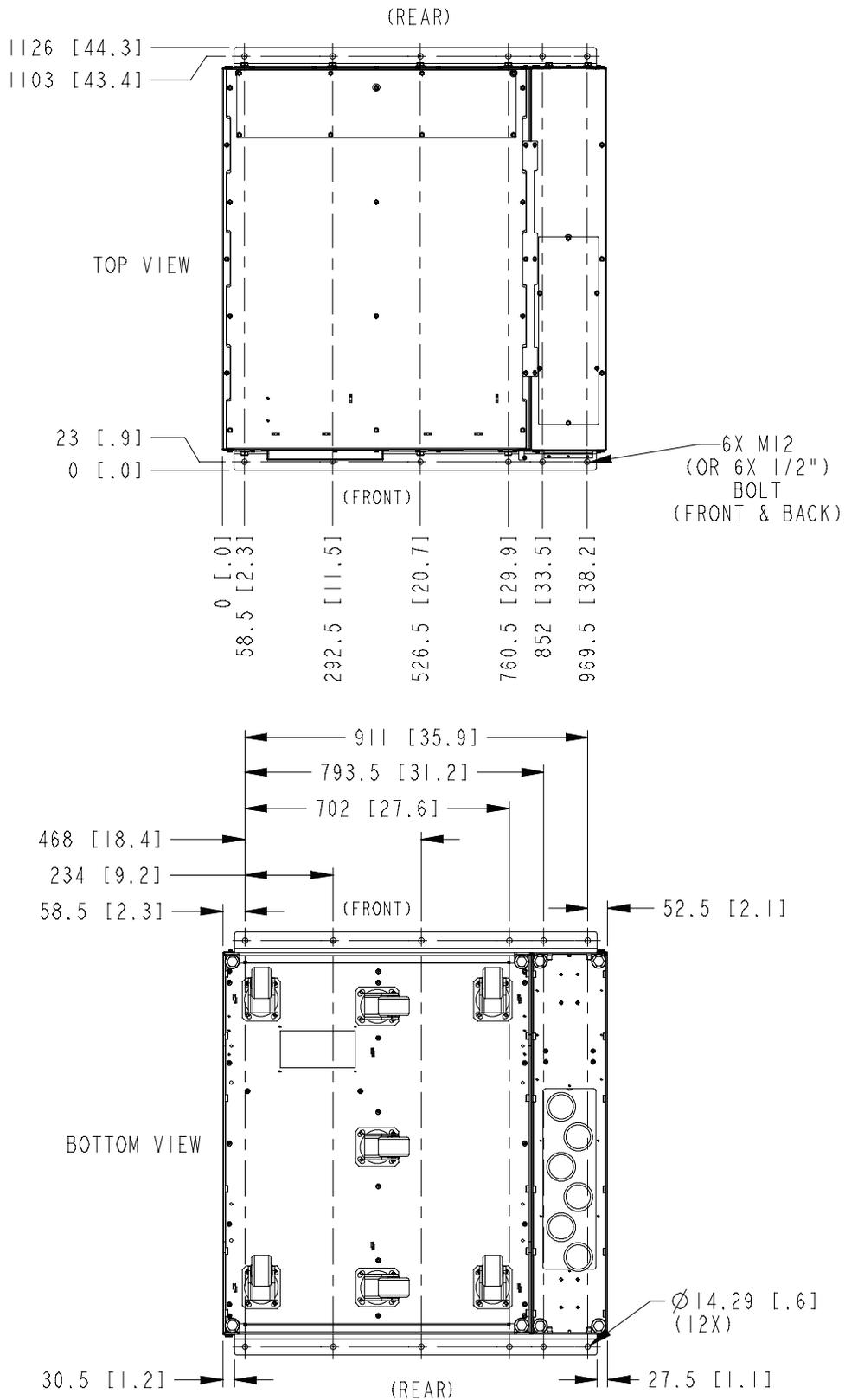


Figure 38. 93PM IBC-LW and IBC-LW(H) Seismic Mounting Dimensions

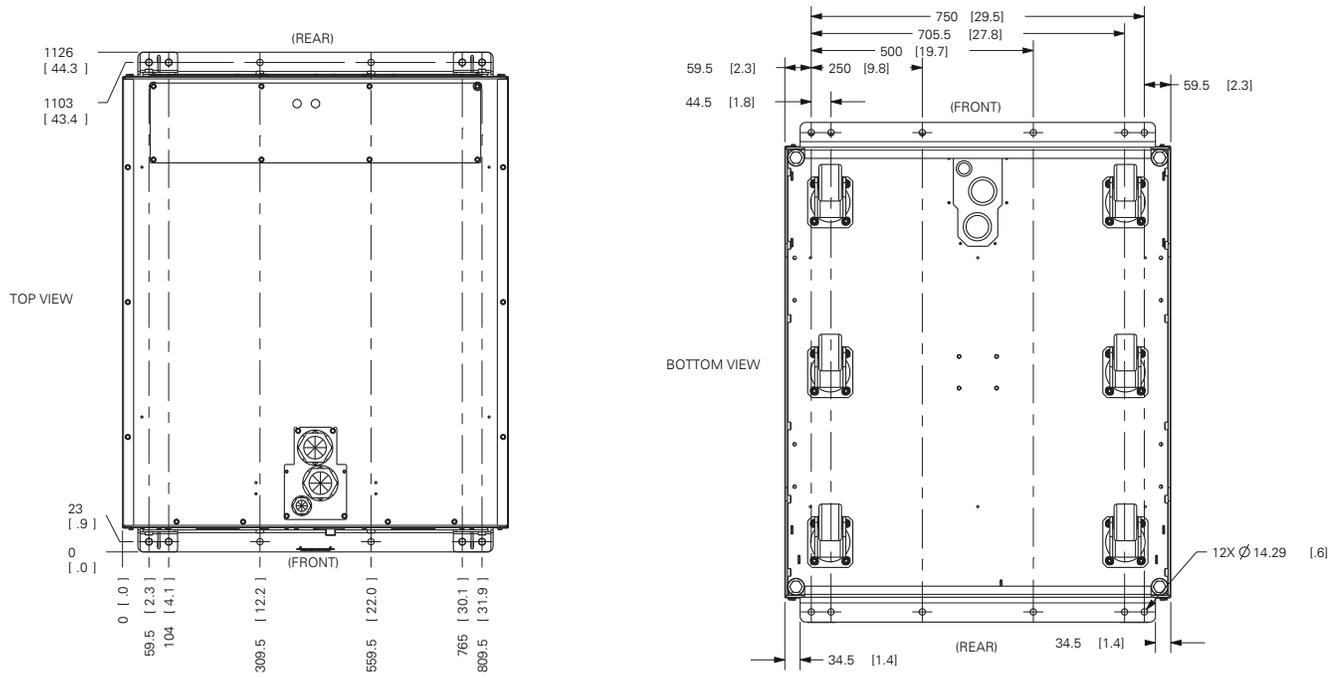


Figure 39. 93PM IAC-D Seismic Mounting Dimensions

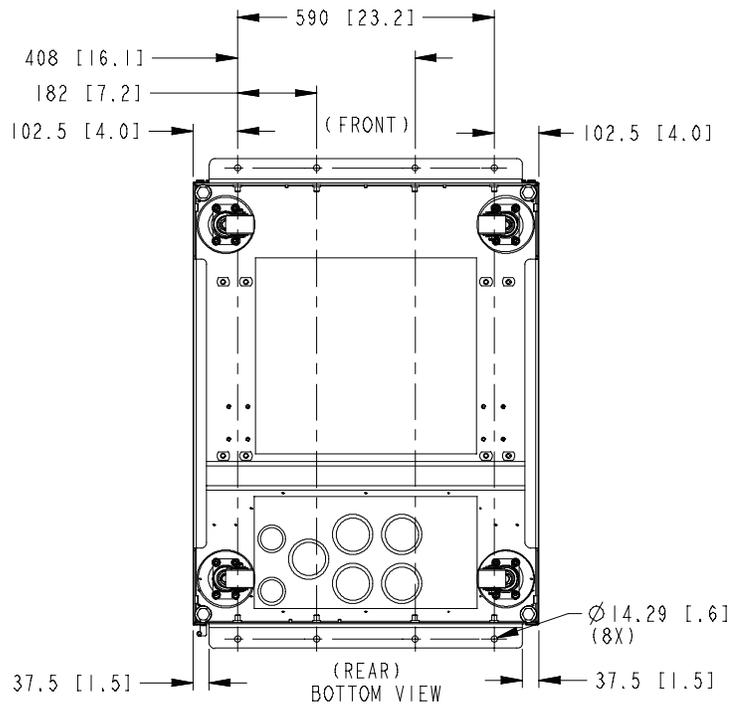
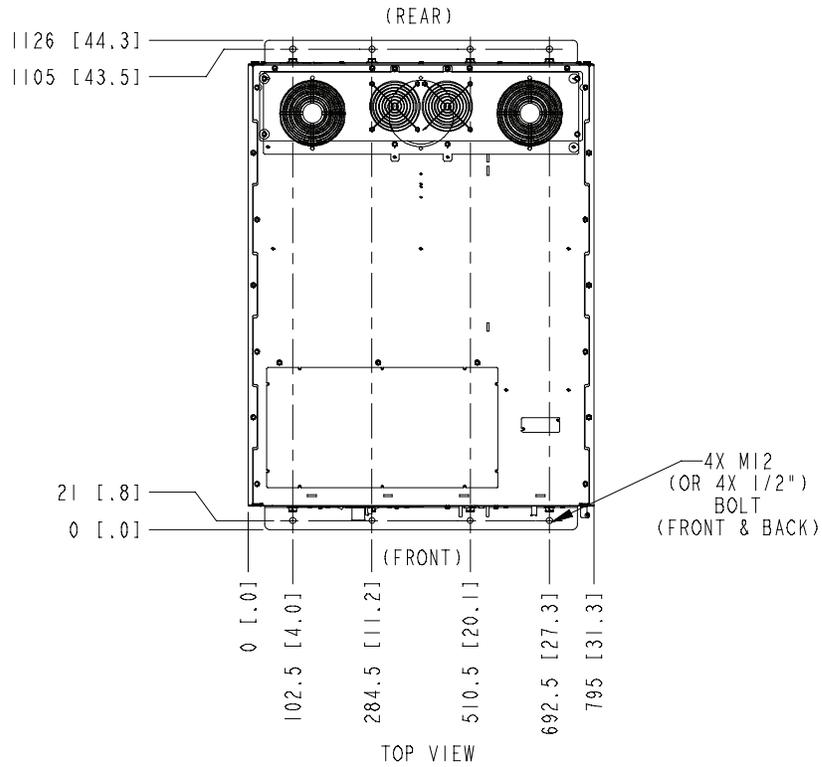
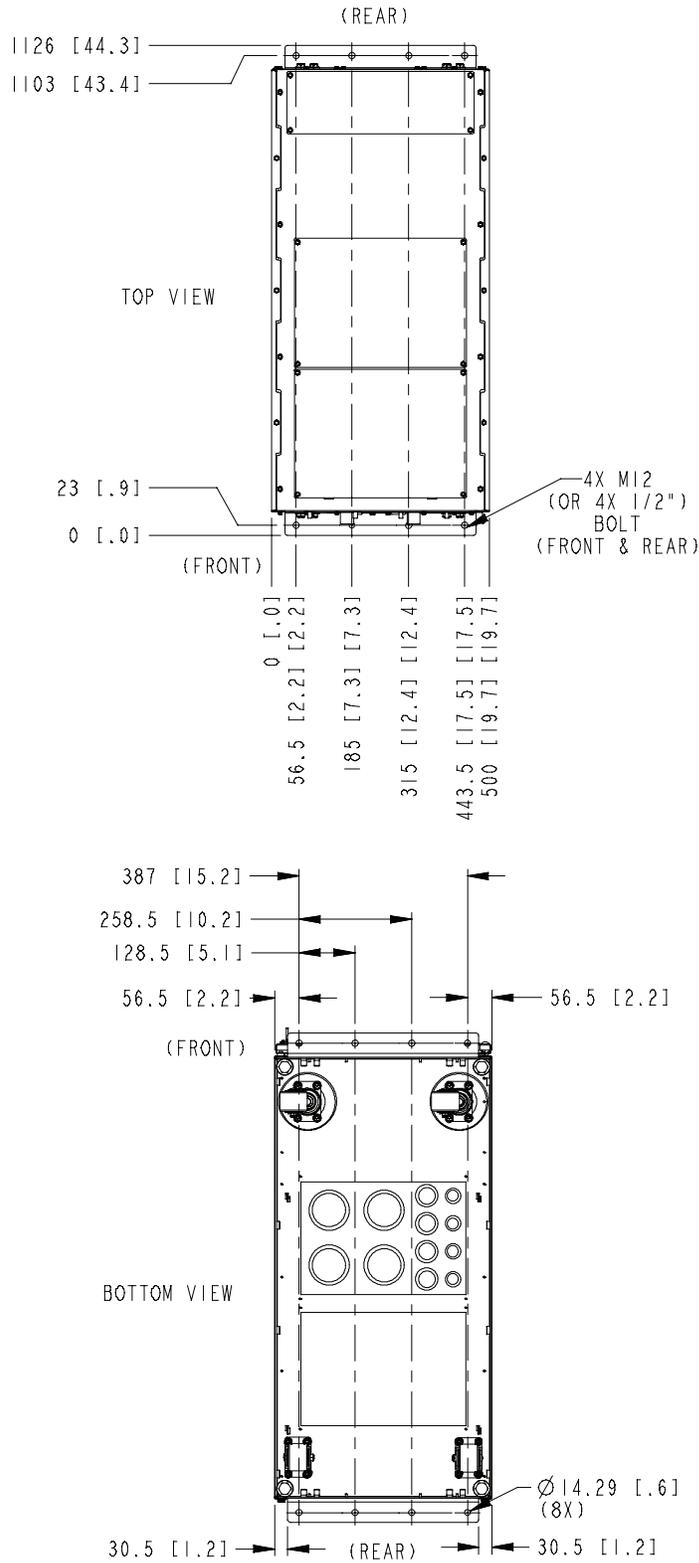


Figure 40. 93PM IAC-T Seismic Mounting Dimensions





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