

REVISIONS				
ECN	REV	DESCRIPTION	DATE	APPROVED
-	A	NEW RELEASE	9/2/2021	SPJ
-	B	ADD 240/415V INPUT RATING	11/2/2022	SPJ
-	C	UPDATED DOOR ASSEMBLY	07/28/2023	MJC

Compression lugs for Source 1 & 2 Input Phases and Ground lugs provided by others			
DESCRIPTION	CABLE SIZE AND LUGS		
	RECOMMENDED COPPER CONNECTION (75 °C WIRE MINI)	RECOMMENDED ALUMINUM CONNECTION (75 °C WIRE MINI)	LUG TYPE & SIZE (75 °C WIRE MINI)
SOURCE 1 & 2 INPUT PHASES	(2) X 500 MCM (3) X 300-400 MCM PER PHASE	(3) X 400-500 MCM PER PHASE	NEMA 2-HOLE (1/2" DIA) ON 1-3/4" CENTER BUS LANDING
OUTPUT PHASES	(2) X 500 MCM (3) X 300-400 MCM PER PHASE	(3) X 400-500 MCM PER PHASE	NEMA 2-HOLE (1/2" DIA) ON 1-3/4" CENTER BUS LANDING
GROUND BUS (COMBINED SOURCE INPUT & OUTPUT)	4/0 AWG - 300 MCM UP TO I9)	300-400 MCM UP TO I9)	NEMA 2-HOLE (1/2" DIA) ON 1-3/4" CENTER BUS LANDING
CONTROL WIRE	16-20 AWG STRANDED	N/A	NOT REQUIRED

- NOTES:**
- Unit is designed to pass ICC ES-AC156 Seismic Standards with: (Sds) Design Spectral Response, short period of 2.0 (Fp/wP) Design Basis of Equipment of 1.6 (Ipl) Importance Factor or 1.5 (z/h) Height Factor Ratio of 1
 - Front access only required for operation and servicing. Use nominal clearances for back and sides of cabinet.
 - Natural convection heat flow. Inlet and outlet locations as specified. 16,700Btu/Hr heat rejection at 208VAC / 800A.
 - Standard forklift or floor jack openings available at bottom of the cabinet.
 - Cable terminal connections are shown in auxilliary views on the following sheets. Top or bottom cable entry is available for all Circuit Breakers, Output and Signal Connections.
 - See Table 1 for recommended power cable sizes, lugs. All phase cables are designed for up to three compression type lugs, arranged back to back. Tongue type connections per NEMA 2-Hole Standard (1-3/4" in spacing, 1/2" in dia hdw.
 - Standard 18IN junction box supplied for top cable entry to be field assembled as shown on Sheet5. A removable front cover is supplied for cable pull and intermittent thermal testing.
 - If rear clearance unavailable to anchor rear Seismic Feet to floor Seismic Cleats are required to mount to the floor and slide the unit underneath for Seismic Compliance. See Sheet 6 for option to order.
 - See One-Line Electrical Diagram for additional detail.

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TOLERANCES:
 XX ± .03
 XXX ± .010
 ANGULAR ± .1/2

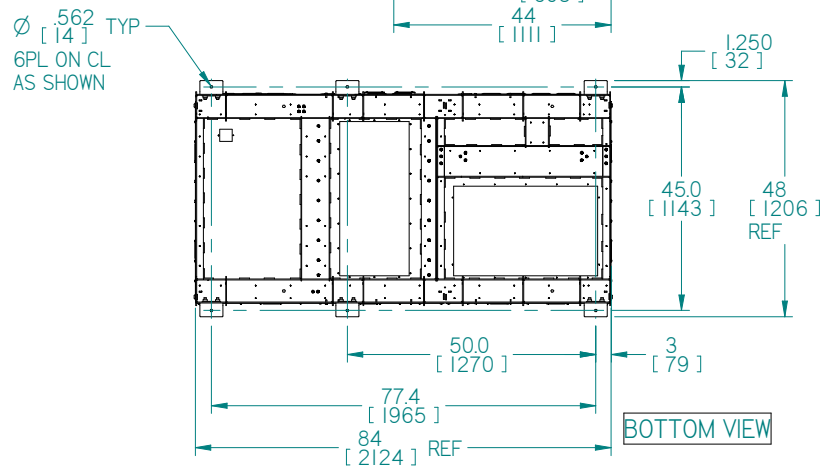
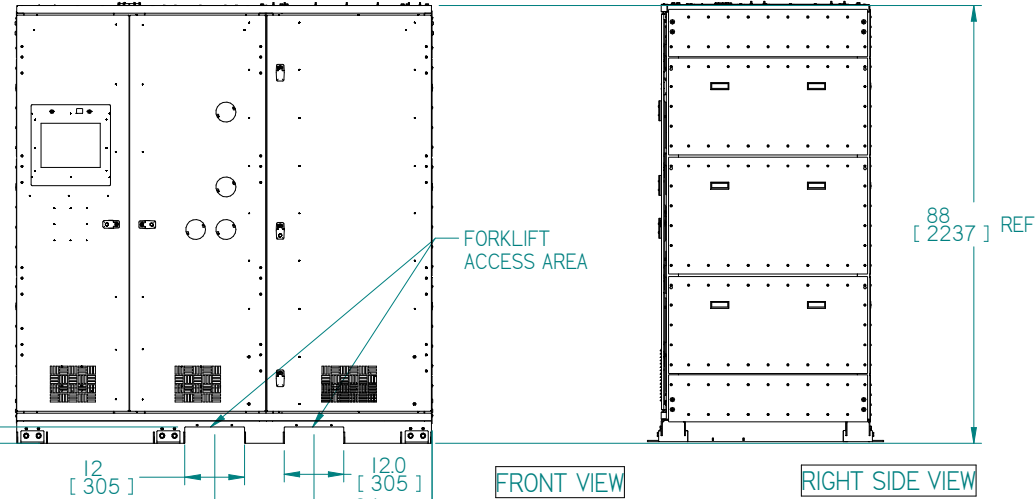
FIRST ANGLE PROJ.

LAYERZERO POWER SYSTEMS, INC.

OUTLINE, MOUNTING, INSTALLATION DIAGRAM
 Series 70 eSTS, 2 SOURCE,
 480/208VAC OR 240/415VAC, 4-POLE, 800A, SMR

DWN SPJ	DATE 6/7/2021	SIZE	FSCM NO.	DWG NO.	REV
CHK NEM	DATE 9/2/2021	94-MS-40840002		C	
APVD SPJ	DATE 9/2/2021	SCALE 1:1.25	94-MS-40840002-CSHT1	SHEET	1 of 6

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NOTES:

1. USE 1/2-13UNC-2A OR M12 HARDWARE TO ANCHOR SEISMIC FEET TO FLOOR THROUGH 0.562DIA HOLES (6PL) AS SHOWN IN BOTTOM VIEW. TORQUE TIGHTEN TO 50LB-FT (67.8N-m).

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DWN SPJ	DATE 6/7/2021	SIZE D	FSCM NO.	DWG NO.	REV C
CHK NEM	DATE 9/2/2021	94-MS-40840002			
APVD SPJ	DATE 9/2/2021	SCALE 1:12.5	94-MS-40840002-CSHT2	SHEET	2 of 6

8

7

6

5

4

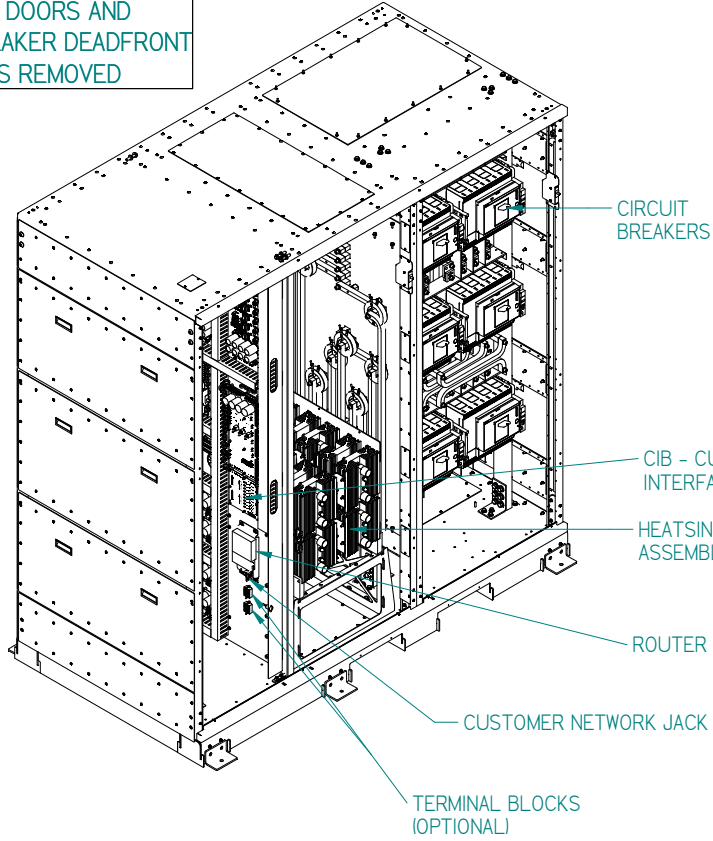
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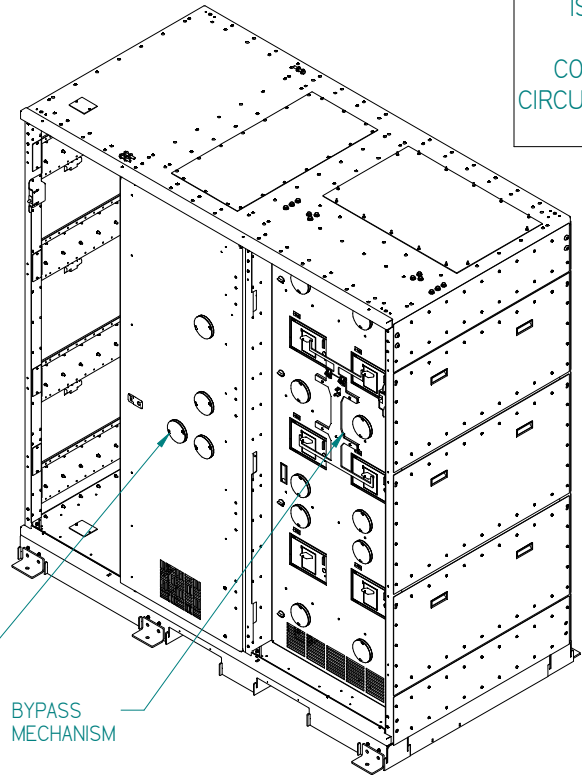
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ISOMETRIC VIEW WITH FRONT DOORS AND CIRCUIT BREAKER DEADFRONT DOORS REMOVED



ISOMETRIC VIEW WITH CONTROL BAY AND CIRCUIT BREAKER DOORS REMOVED



D

C

B

A

D

C

B

A

8

7

6

5

4

3

2

1

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FIRST ANGLE PROJ.

DATE 6/7/2021
DATE 9/2/2021
DATE 9/2/2021

SPJ
NEM
SPJ

SIZE D
SCALE 1:10

FSCM NO.
94-MS-40840002-CSHT3

DWG NO.
94-MS-40840002

REV C

SHEET 3 of 6

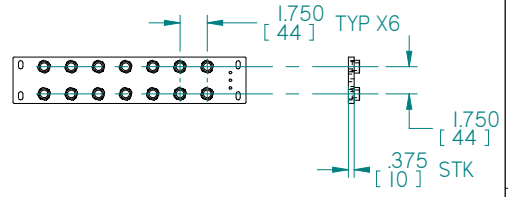
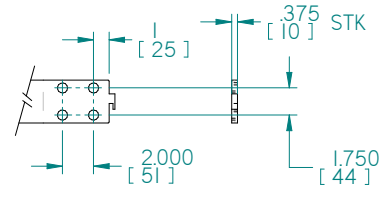
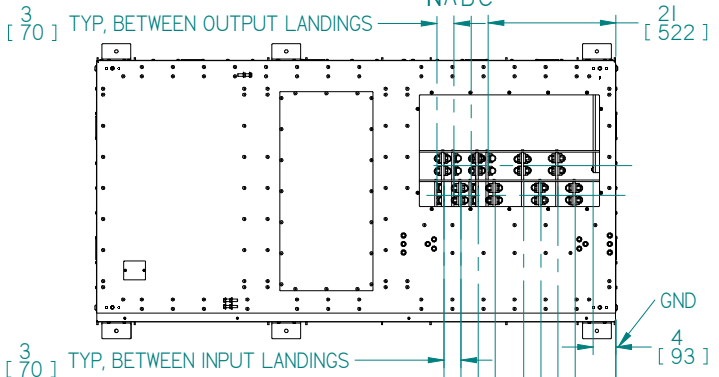
OUTLINE, MOUNTING, INSTALLATION DIAGRAM
Series 70 eSTS, 2 SOURCE,
480/208VAC OR 240/415VAC, 4-POLE, 800A, SMR

8 7 6 5 4 3 2 1

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TOP VIEW

OUTPUT NABC



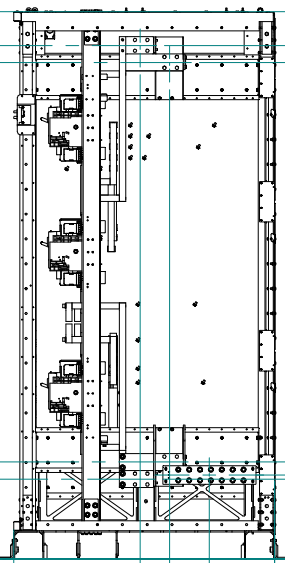
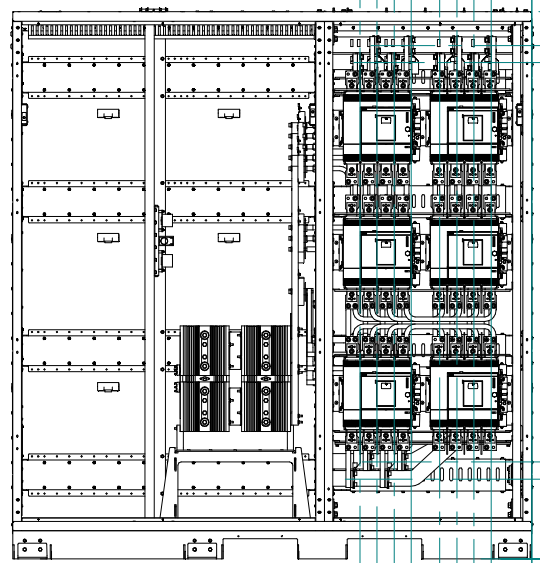
INPUT / OUTPUT TERMINAL CONNECTIONS

GROUND CONNECTIONS

INPUT
S1 NEU, S1ØB
S2 NEU, S2ØB

INPUT
S1ØA, S1ØC
S2ØA, S2ØC

RIGHT SIDE VIEW



FRONT VIEW

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FIRST ANGLE PROJ.

DWN SPJ DATE 6/7/2021

CHK NEM DATE 9/2/2021

APVD SPJ DATE 9/2/2021

SIZE D

FSCM NO.

DWG NO. 94-MS-40840002

REV C

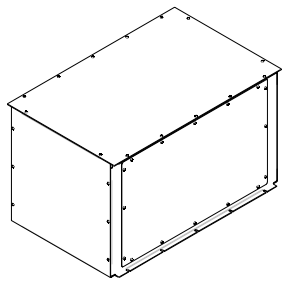
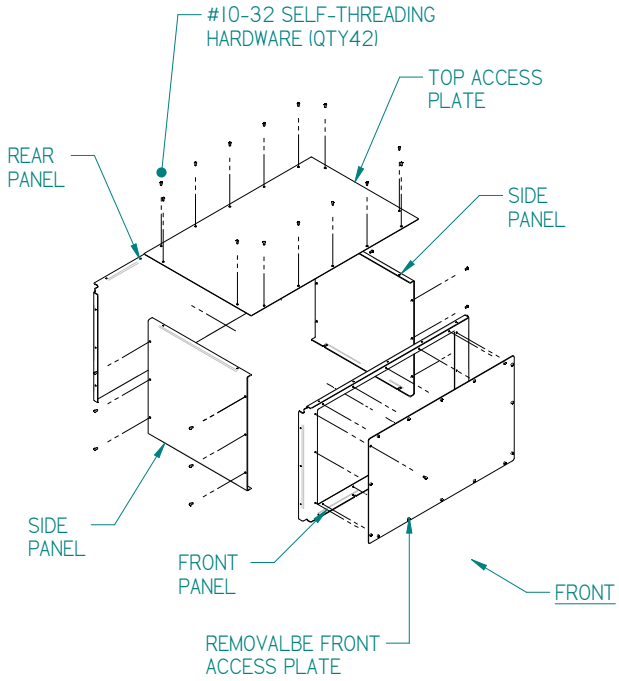
SCALE 1:4

94-MS-40840002-CSHT4

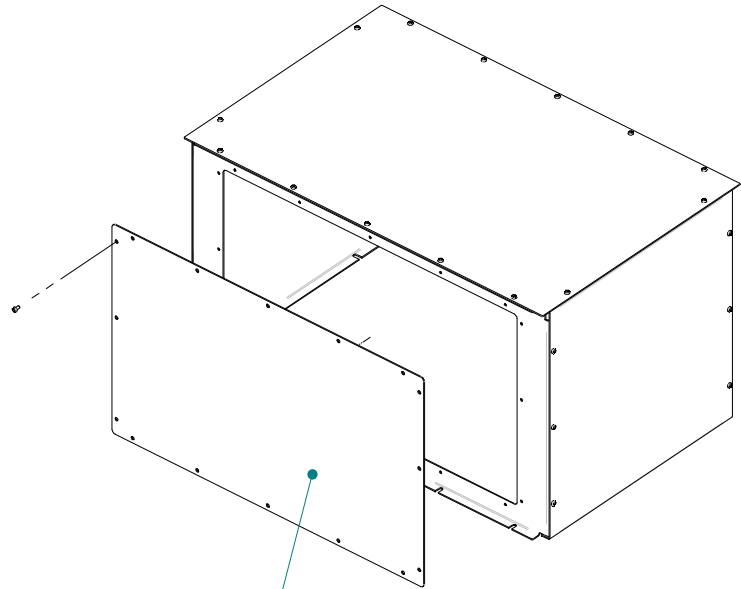
SHEET 4 of 6

8 7 6 5 4 3 2 1

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FINISHED ISOMETRIC VIEW



REMOVABLE FRONT ACCESS PLATE

- NOTES:
1. JUNCTION BOX ASSEMBLY PER NOTE7, SHT1.
 2. COMPONENTS SHIPPED SEPARATELY FOR FIELD ASSEMBLY.

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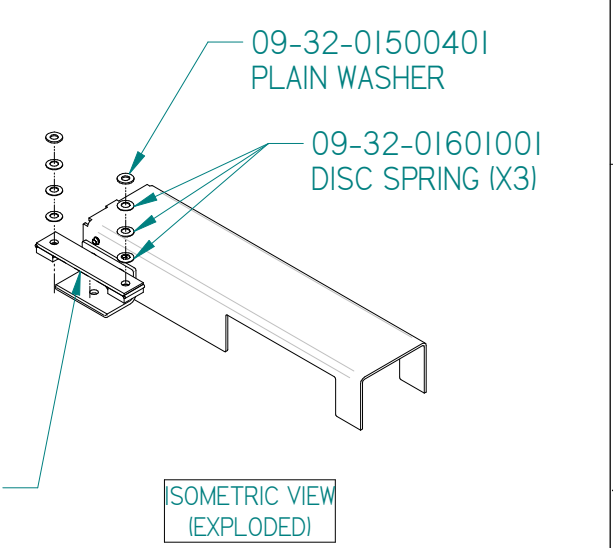
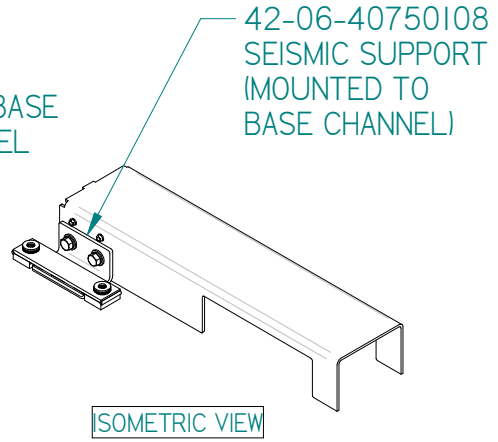
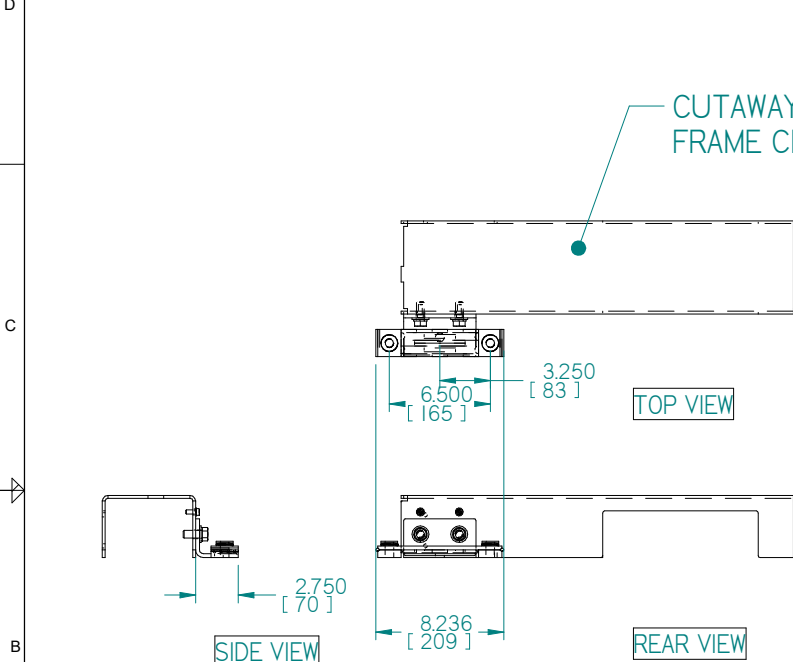
FIRST ANGLE PROJ.

OUTLINE, MOUNTING, INSTALLATION DIAGRAM
Series 70 eSTS, 2 SOURCE,
480/208VAC OR 240/415VAC, 4-POLE, 800A, SMR

DWN SPJ	DATE 6/7/2021	SIZE D	FSCM NO.	DWG NO.	REV C
CHK NEM	DATE 9/2/2021	94-MS-40840002			
APVD SPJ	DATE 9/2/2021	SCALE 1:8	94-MS-40840002-CSHT5	SHEET	5 of 6

42-00-40750107 SEISMIC MOUNTING CLEAT ASSEMBLY INSTRUCTION

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- NOTES:**
1. THE FOLLOWING IS TO BE USED AS A GUIDE TO INSTALL SEISMIC MOUNTING CLEATS ON LAYERZERO CABINETS. THE CLEATS ARE USED WHERE REAR ACCESS IS UNAVAILABLE AFTER FINAL INSTALLATION.
 2. CLEATS WILL BE PROVIDED FOR ALL REAR SEISMIC SUPPORTS.
 3. THE SEISMIC ENGINEER AT THE SITE WILL DETERMINE THE TYPES OF ANCHORS TO BE USED AND 2 ANCHORS ARE NEEDED PER CLEAT.
 4. THE CLEATS ARE SIZED FOR 1/2IN (12mm) SEISMIC ANCHORS WITH A REQUIRED TORQUE FO 50LB-FT (67.69Nm).
 5. LOCATE THE CLEATS OFF OF THE CENTERLINE OF THE 42-06-40750108 SEISMIC SUPPORTS ON THE BASE CHANNEL AS SHOWN IN THE TOP AND SIDE VIEWS.
 6. AFTER ANCHOR STUDS OR WELLS ARE INSTALLED INTO THE FLOOR MOUNT THE 42-01-40750107 SEISMIC MOUNTING CLEAT ASSEMBLY WITH DISC SPRINGS AND PLAIN WASHERS AS SHOWN IN THE EPLoded ISOMETRIC VIEW.
 7. TORQUE TIGHTEN ANCHORAGE TO 50LB-FT (67.79Nm) OF TORQUE.
 8. INSTALL CABINET BY SLIDING THE UNIT IN WITH THE SEISMIC SUPPORTS UNDERNEATH THE SEISMIC CLEATS. COMPLETE INSTALLATION WITH ANCHORAGE OF THE FRONT SEISMIC SUPPORTS TO THE GROUND.

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DWN SPJ	DATE 6/7/2021	SIZE D	FSCM NO.	DWG NO.	REV C
CHK NEM	DATE 9/2/2021	94-MS-40840002			
APVD SPJ	DATE 9/2/2021	SCALE 1:1	94-MS-40840002-CSHT 6	SHEET	6 of 6