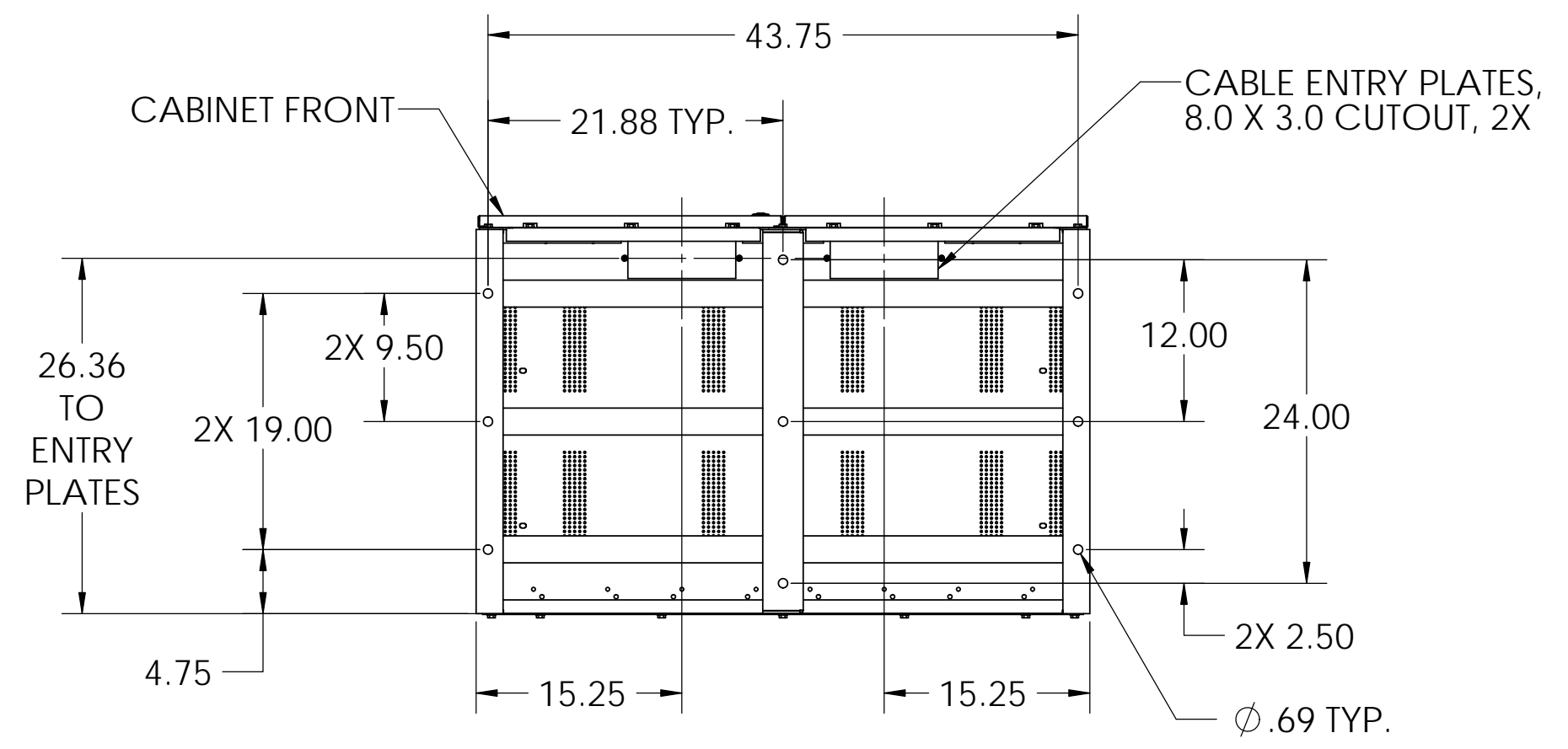
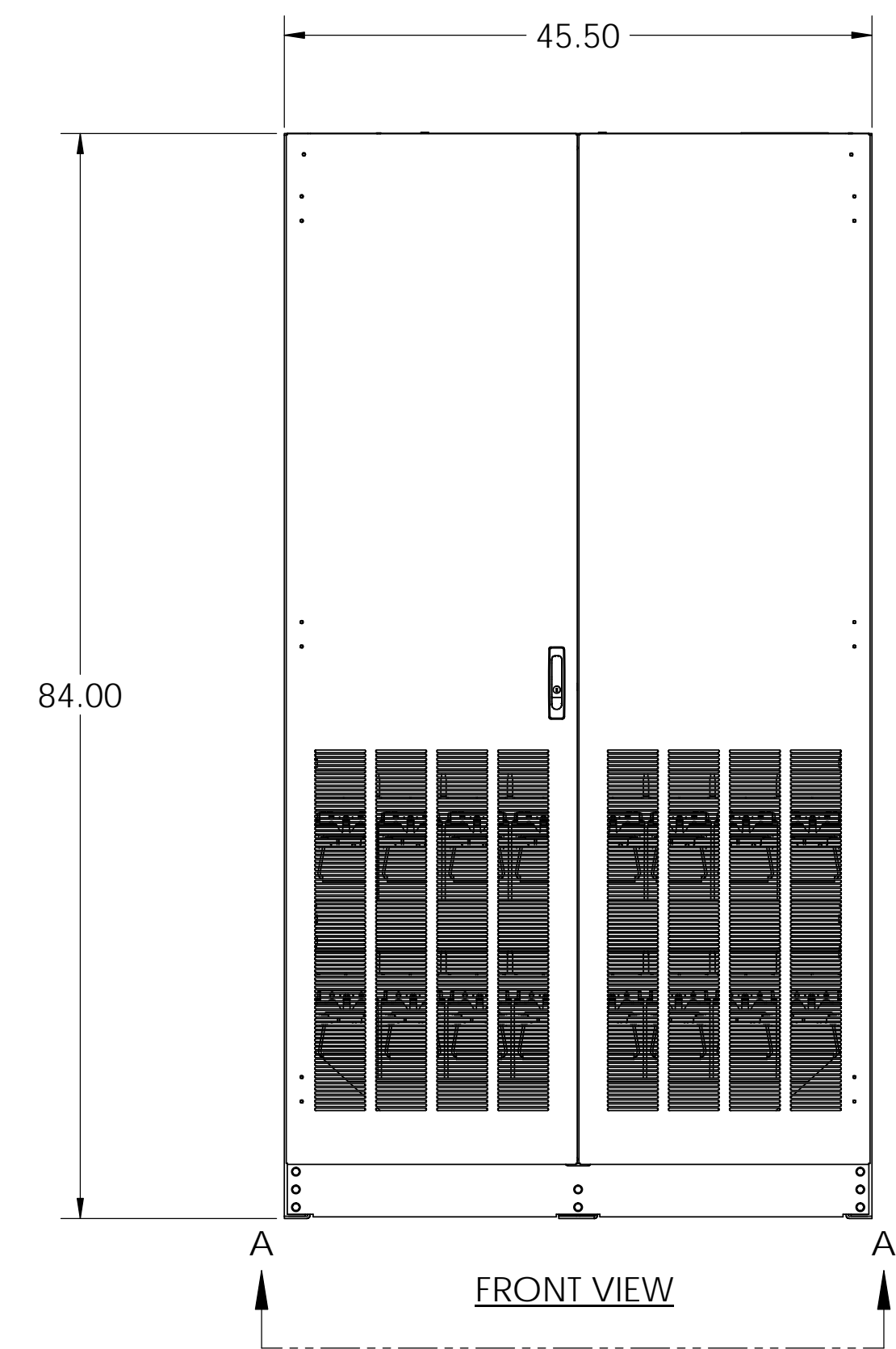
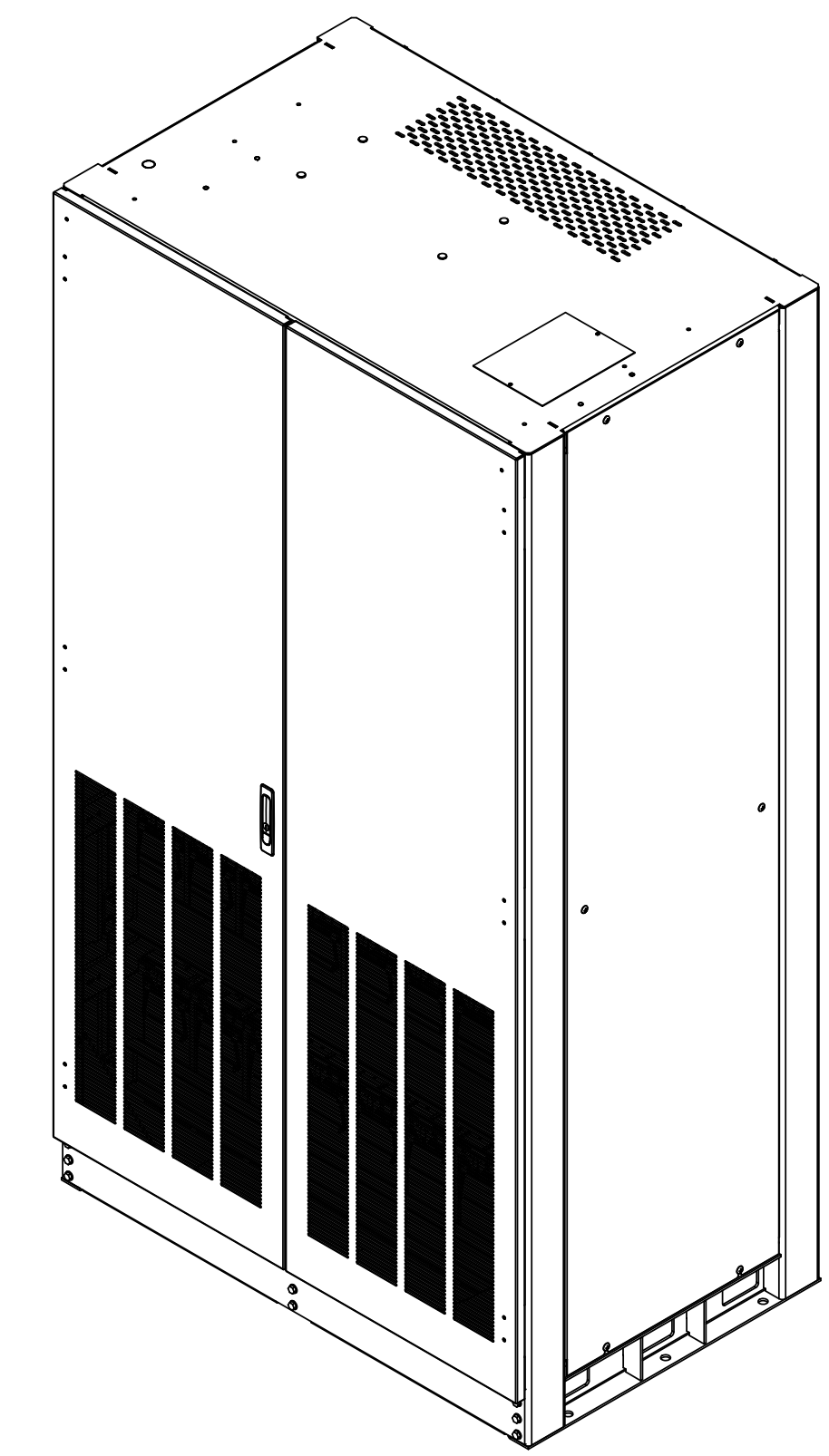


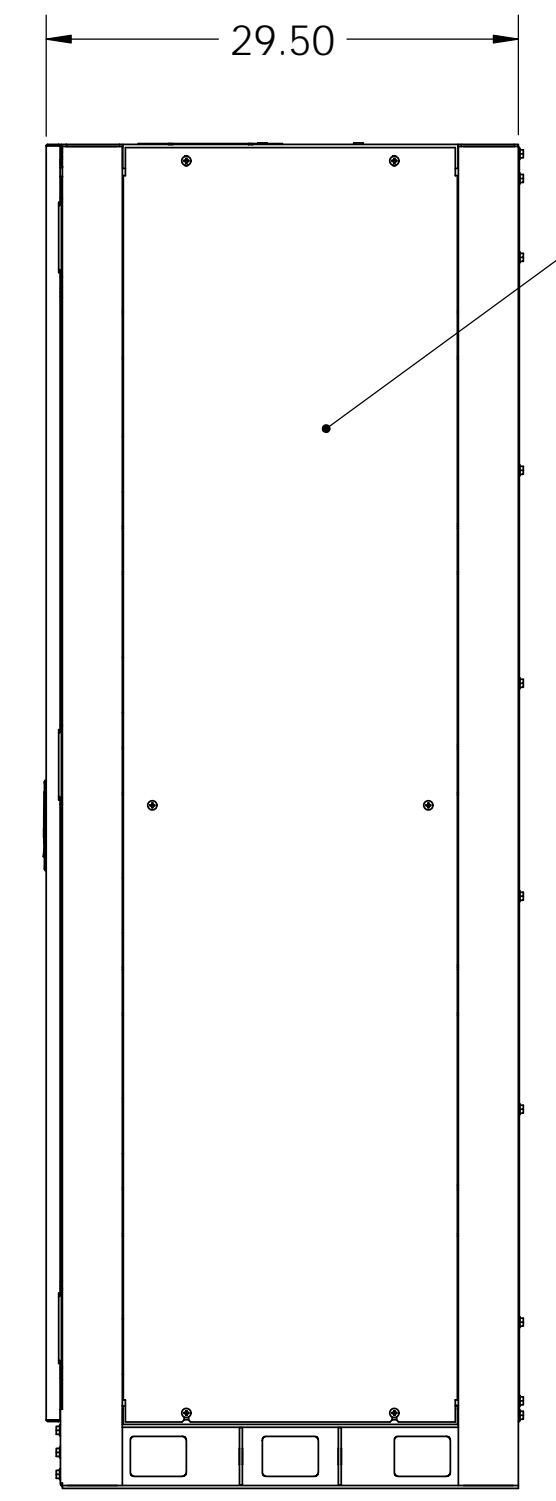
TOP VIEW



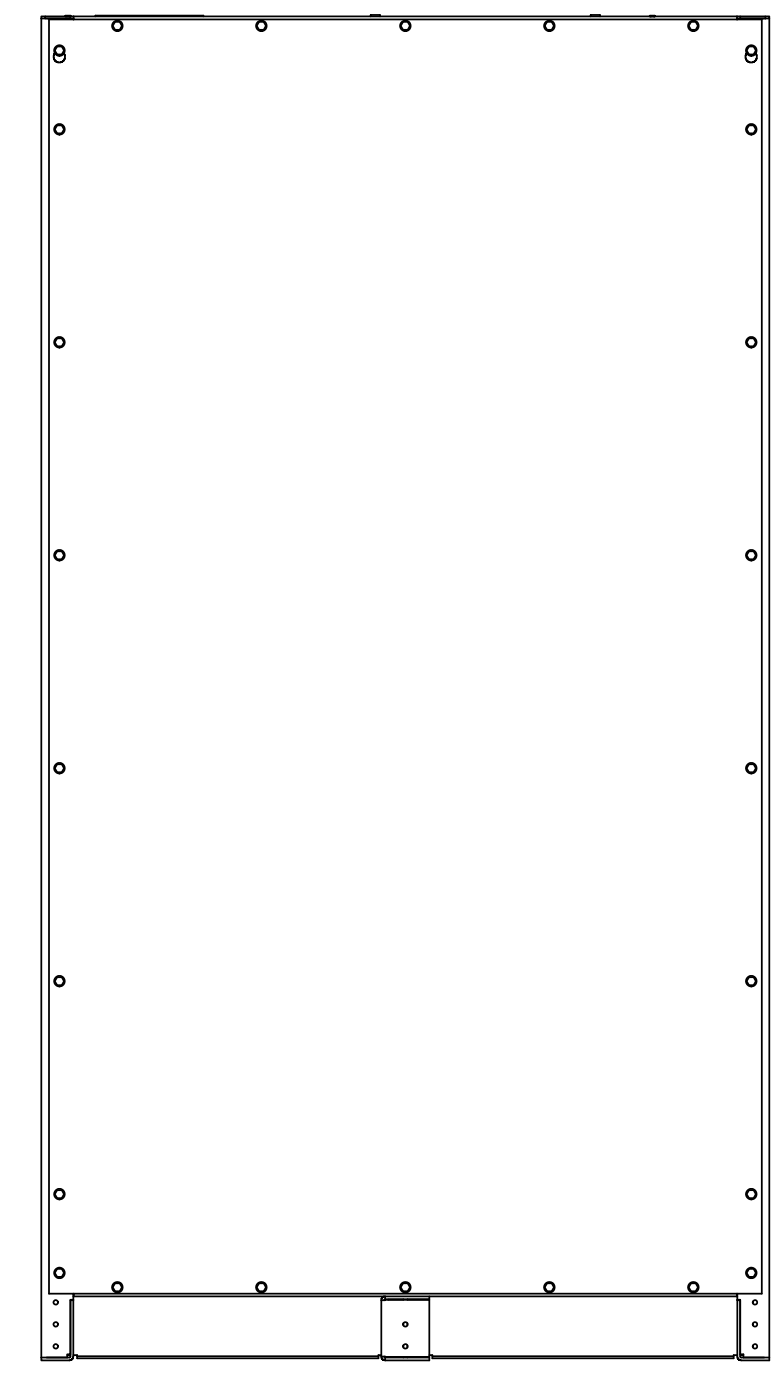
SECTION A-A  
BOTTOM VIEW



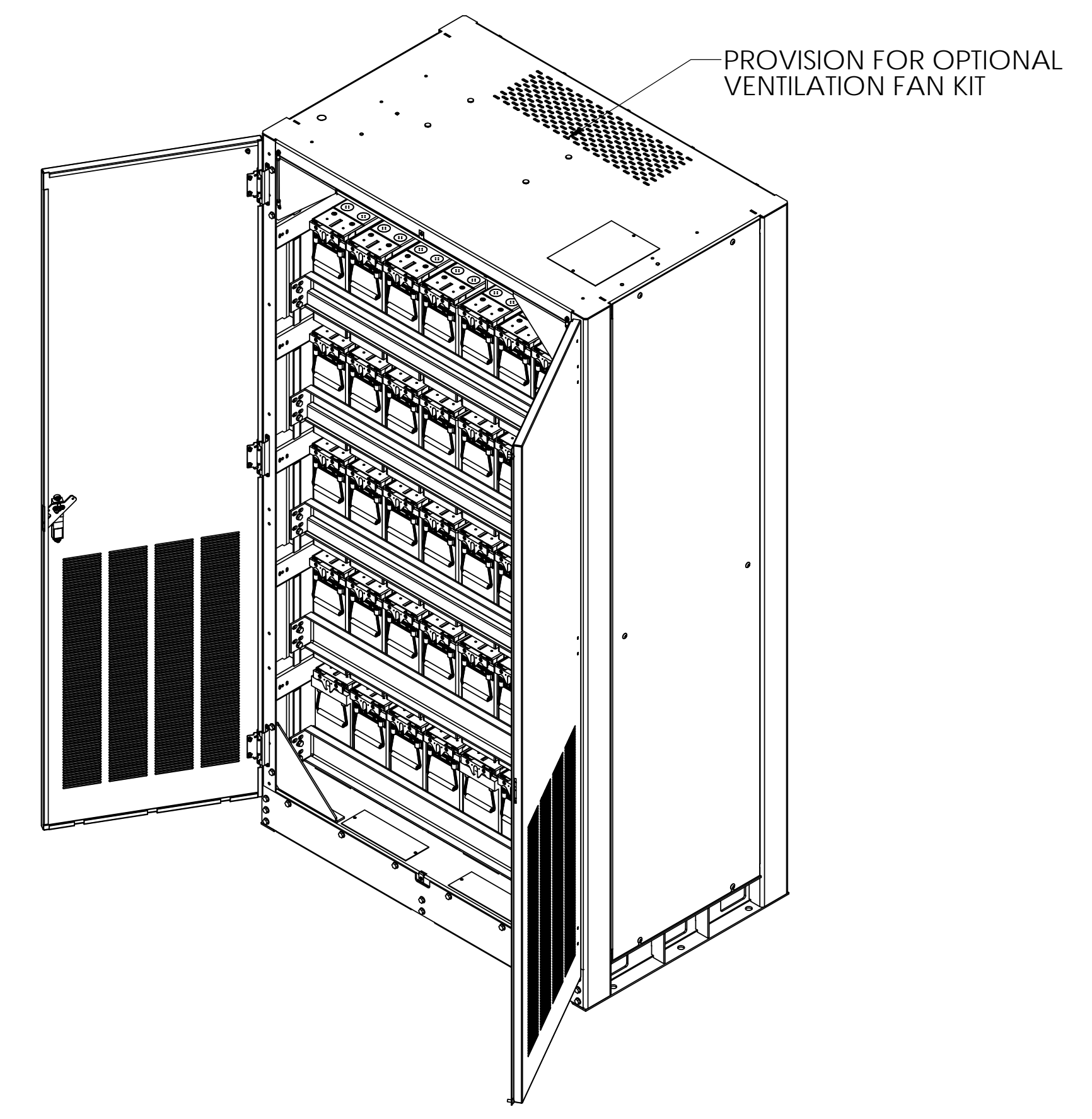
FRONT VIEW



SIDE VIEW



REAR VIEW



**CABINET NOTES:**

1. NEMA 1 DESIGN.
2. EMPTY CABINET WEIGHT 770 LBS (350 KG)
3. UL 1778 LISTED (UL FILE NO. E221214) ASSEMBLED AND FULLY TESTED AT THE FACTORY PRIOR TO SHIPPING.
4. FULLY WELDED FRAME. MANUFACTURED FROM HEAVY GAUGE STEEL.
5. POWDER COATED WITH A CORROSION AND CHIP RESISTANT, EPOXY HYBRID POWDER USING A FIVE STAGE EMERSION PRETREATMENT PROCESS. POWDER COAT IS OVEN BAKED.
6. BATTERIES CAN BE ACCESSED FROM FRONT, REAR, AND BOTH SIDES.
7. CUSTOM DESIGNED PALLETS FOR SHIPPING ANYWHERE LOCALLY, GLOBALLY (UPON REQUEST).
8. BATTERY CABINET CAN BE MOVED WITH A NORMAL PALLET JACK OR FORK LIFT FROM FRONT AND REAR. FROM SIDES, BATTERY CABINET CAN BE MOVED WITH ROL-A-LIFT TYPE MOVER. ONLY LIFT BATTERY CABINET FROM BOTTOM.
9. BATTERIES ARE SECURED WITH NON-CONDUCTIVE STRAPPING FOR FOR SAFE TRANSIT.
10. STANDARD AND CUSTOM SPILL CONTAINMENT OPTIONS ARE AVAILABLE.
11. SEISMICALLY CERTIFIED TO IBC (2012), ASCE 7-1, CBC 2010.
12. SEISMIC CATEGORY DESIGN D (Ss=2.9), IMPORTANCE FACTOR 1.5

**REVISIONS:**

A:	INITIAL RELEASE
B:	UPDATE VIEWS
C:	ADD NARADA 12HRL700 BATTERY TO BATTERY CONFIGURATION TABLES, UPDATE BREAKER SIZING TABLE, REMOVE FUSE OPTION (RNA 08-21-19)

**ZONE**

UNLESS OTHERWISE SPECIFIED:  
 DIMENSIONS ARE IN INCHES  
 TOLERANCES:  
 ANGULAR: MACH ± .5 BEND ± 1  
 TWO PLACE DECIMAL ± .1  
 THREE PLACE DECIMAL ± .005

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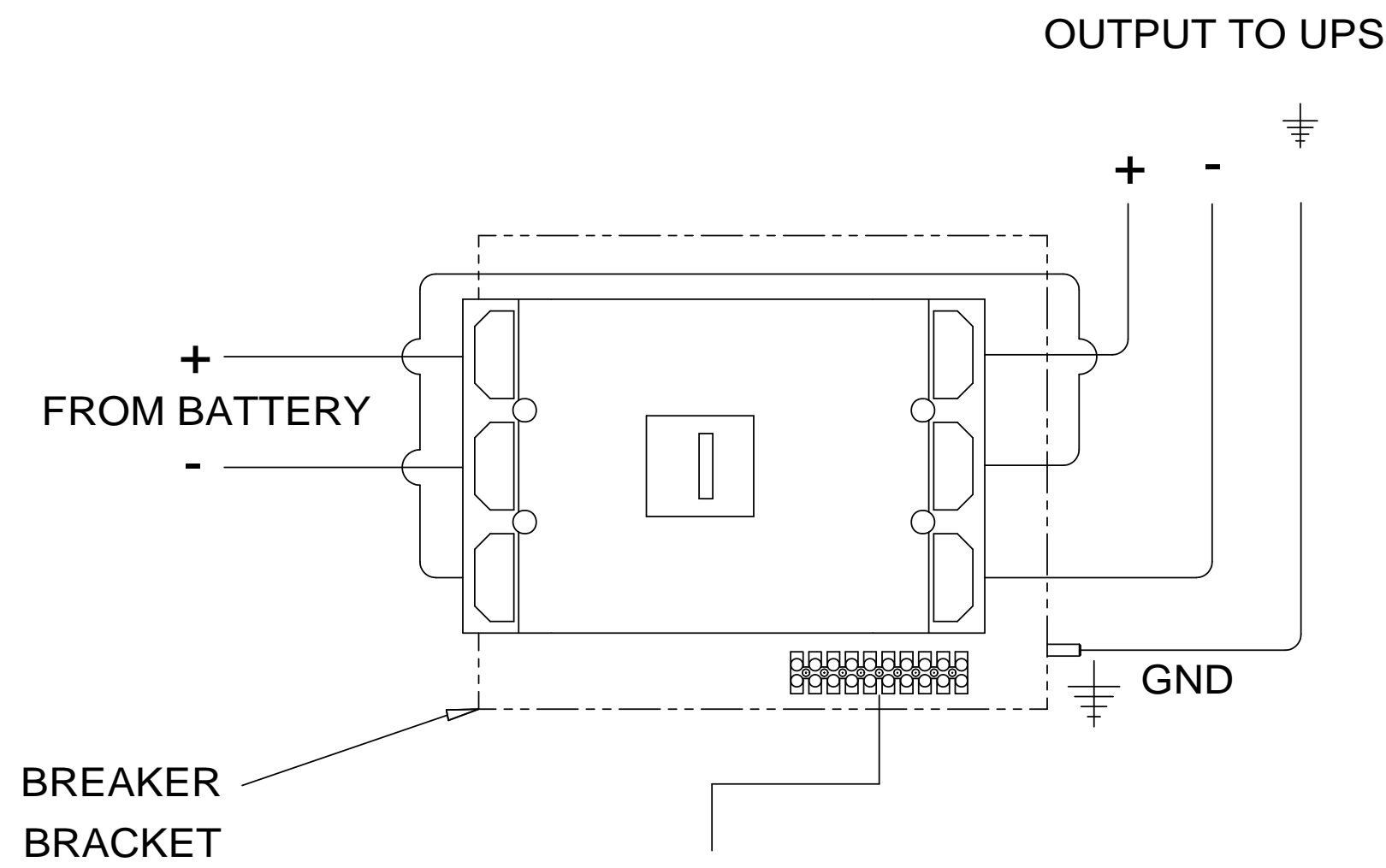
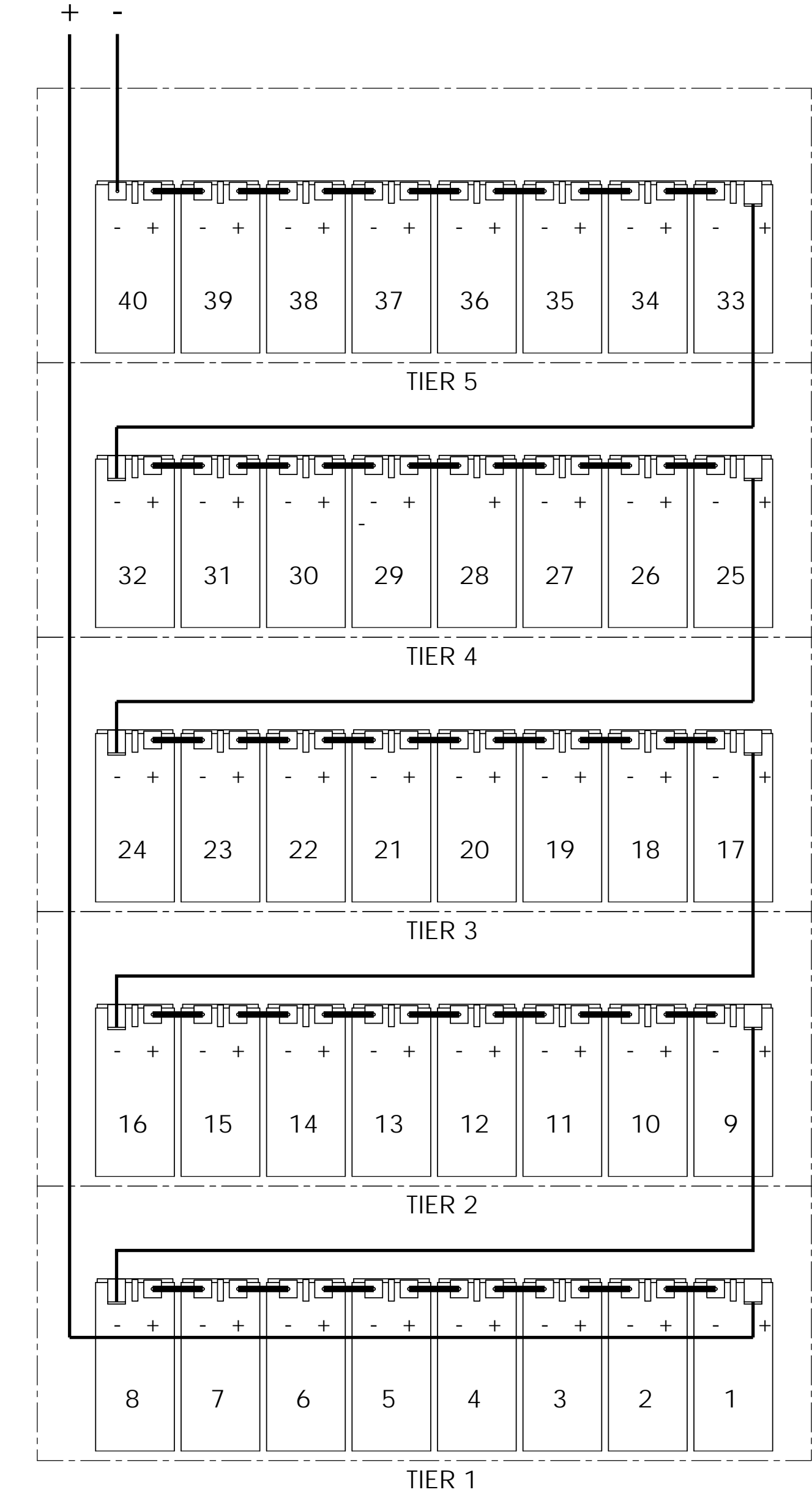
**MITSUBISHI ELECTRIC POWER PRODUCTS, INC.**  
 WARRENDALE, PA.

DRAWN	NAME	DATE	TITLE
CHECKED	RNA	03-31-17	BATTERY CABINET, 12V, FRONT TERMINAL BATTERY
ENG APPR.			DWG. NO.
MFG APPR.			BCES5-SPEC
FILE LOCATION:	PROJECTION:		SHEET 1 OF 2

REV C

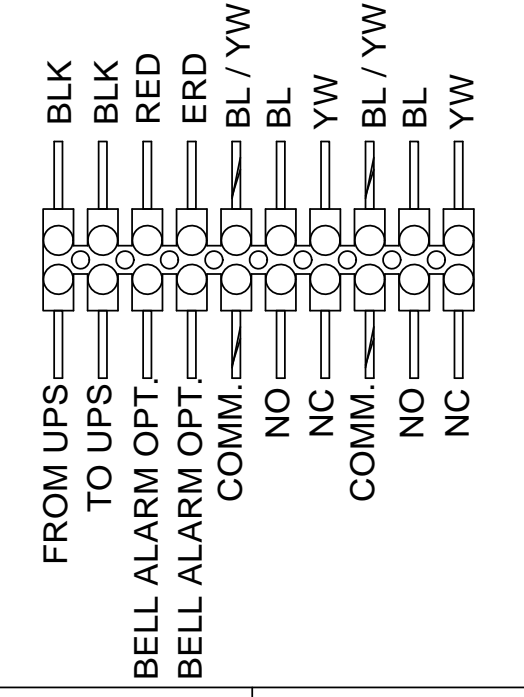
TO BREAKER OR FUSE PANEL

# BREAKER DETAIL



FROM BREAKER OPTIONS

TO 24/48 VDC SOURCE



TO UPS

AUXILLARY CONTACTS LISTED APPLICABLE WHEN BREAKER IS IN THE CLOSED (ON) POSITION

TYPICAL BREAKER SIZING										
9800 SERIES UPS SIZE		100 KVA	150 KVA	225 KVA	300 KVA		375 KVA	500 KVA	750 KVA	
9900 SERIES UPS SIZE	80KVA	100 KVA	150 KVA	225 KVA		300KVA	500KVA		750 KVA	1050 KVA
BREAKER SIZE AMPS	200A	225A	350A	500A	350A	400A	450A	600A	600A	600A
BREAKER TIE CABLE	(1)-#2	(1)-1/0	(1)-4/0	(2)-1/0	(1)-4/0	(1)-4/0	(1)-4/0	(2)-2/0	(2)-2/0	(2)-2/0
INTERCELL CABLE	(1)-#2	(1)-1/0	(1)-4/0	(2)-1/0	(1)-4/0	(1)-4/0	(2)-1/0	(2)-2/0	(2)-2/0	(2)-2/0
UV, ALARM AND AUX.	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES

SQUARE-D POWERPACT BREAKER SIZING						
BREAKER SIZE AMPS	200A	225A	250A	300A	350A	400A
A.I.C. RATING, 500DC	20,000 A.I.C	20,000 A.I.C	20,000 A.I.C	20,000 A.I.C	20,000 A.I.C	20,000 A.I.C
OUTPUT LUG SIZE	(1)3/0-350	(1)3/0-350	(1)3/0-350	(2)2/0-500	(2)2/0-500	(2)2/0-500
BREAKER SIZE AMPS	450A	500A	600	800		
A.I.C. RATING, 500DC	20,000 A.I.C	20,000 A.I.C	20,000 A.I.C	20,000 A.I.C		
OUTPUT LUG SIZE	(2)2/0-500	(2)2/0-500	(2)2/0-500	(4)4/0-400		
SQUARE-D POWERPACT BREAKER ACCESSORY CONTACT RATING						
VOLTAGE	24/48 VDC	240VDC	380VDC	240/380VDC	480 VAC	600/690VAC
AUXILIARY SWITCH	2.5 AMPS*	.5 AMPS*	.3 AMPS*	6 AMPS	6 AMPS	6 AMPS
BELL ALARM	2.5 AMPS	.5 AMPS*	.3 AMPS*	6 AMPS	6 AMPS	6 AMPS

\*NON-CONDUCTIVE LOAD

BATTERY CONFIGURATION TABLE	
BATTERY MFG. / MODEL	MAXIMUM NUMBER OF BATTERIES PER CABINET
ENERSYS 12XE1010F-FR	40
ENERSYS 12XE1110F-FR	
ENERSYS 12XE1150F-FR	
EAST PENN HR5500ET	
NARADA 12HRL700	

BATTERY CABINET SPECS		
BATTERY USED (480V)	WEIGHT	DIMS (IN)
ENERSYS 12XE1010F-FR	5066	45.5 X 29.5 X 84.0
ENERSYS 12XE1110F-FR	5330	45.5 X 29.5 X 84.0
ENERSYS 12XE1150F-FR	5938	45.5 X 29.5 X 84.0
EAST PENN HR5500ET	5570	45.5 X 29.5 X 84.0
NARADA 12HRL700	5970	45.5 X 29.5 X 84.0

## ELECTRICAL NOTES:

- ALL CABLES USED ARE FLEXIBLE, UL LISTED, MINIMUM 105C.
- ALL BREAKERS ARE UL RECOGNIZED.
- ALL FUSES ARE UL RECOGNIZED, TYPE A50P, A70P OR EQUIVALENT (FUSED CABINETS ARE NOT LISTED PER UL 1778 STANDARD). ALWAYS REPLACE WITH SAME TYPE OR ITS EQUIVALENT.
- BREAKERS ARE UL LISTED.
- FOR SAFETY, VOLTAGE IS BROKEN BY NOT CONNECTING INTERCONNECT BUS BARS. AN INSTALLATION KIT IS SHIPPED WITH ALL CABINETS.
- ALL CONTROL WIRING IS POWERED FROM AN OUTSIDE SOURCE.
- TERMINAL BLOCKS ARE UL RECOGNIZED, 600V RATED.
- CABINETS ARE SHIPPED WITH THE BREAKER IN THE TRIPPED POSITION.
- CABINET GROUND CONNECTION IS A 5/16-18 THREADED STUD.
- CABLES BETWEEN BATTERY CABINET TO UNINTERRUPTIBLE POWER SUPPLY ARE OPTIONAL.
- FOR TORQUE SPECIFICATIONS, REFERENCE THE LABEL ON THE BATTERY CASE AND THE LABEL ON THE CIRCUIT BREAKER OR TERMINAL BLOCK.
- USE INSULATED TOOLS.
- DO NOT REST TOOLS OR CABLES ACROSS BATTERY

UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES TOLERANCES: ANGULAR: MACH ± .5 BEND ± 1 TWO PLACE DECIMAL ± .1 THREE PLACE DECIMAL ± .005		<b>MITSUBISHI ELECTRIC POWER PRODUCTS, INC.</b> WRENDALE, FL	
PROPRIETARY This document is the property of Mitsubishi Electric Power Products, Inc. and contains proprietary and confidential information which must not be duplicated, used or disclosed other than as expressly authorized by Mitsubishi Electric Power Products, Inc.	DRAWN: RNA CHECKED: ENG APPR: MFG APPR: FILE LOCATION:	NAME: RNA DATE: 03-31-17 TITLE: BATTERY CABINET, 12V, FRONT TERMINAL BATTERY DWG. NO.: BCES5-SPEC PROJECTION:	REV: C SHEET 2 OF 2