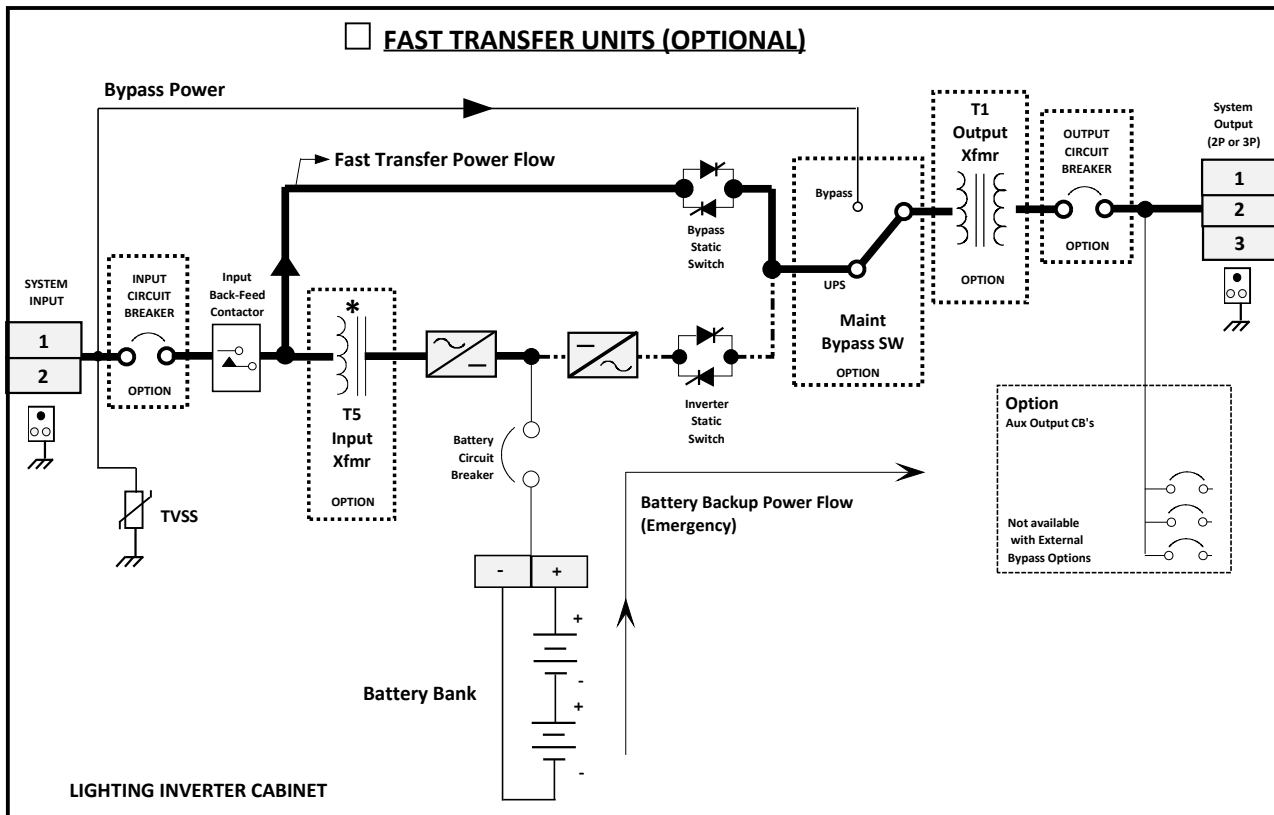
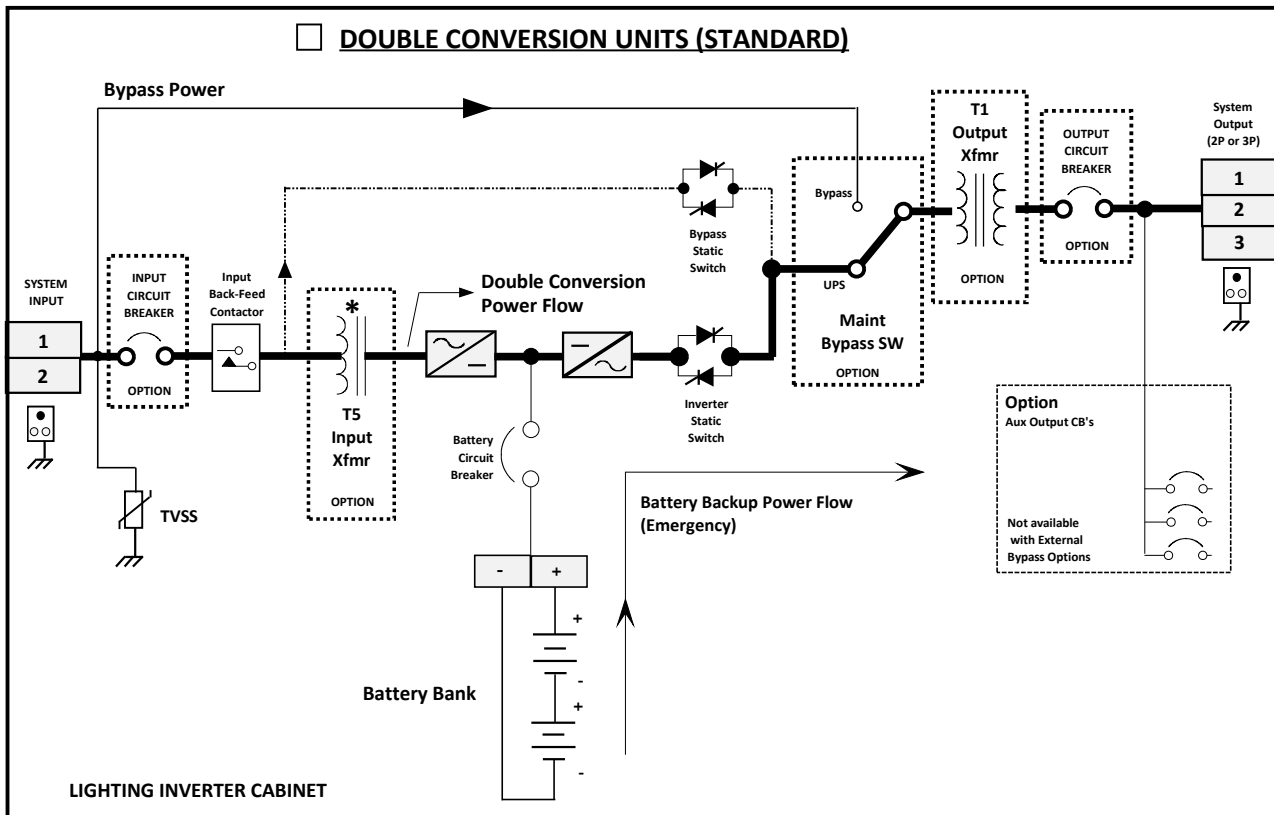


# 1 PHASE LIGHTING INVERTER TYPICAL SINGLE LINE DIAGRAM



## NOTE(S):

- \*Static Bypass and Manual Bypass:  
will be powered from the transformer for different input and output voltage configurations.
- Dotted blocks are optional features

SUBJECT TO CHANGE WITHOUT NOTICE

**INDOOR & OUTDOOR  
UNITS**



TYPICAL 1-PH LIGHTING  
INVERTER SINGLE LINE DIAGRAM

DRAWN : MT  
APPVD : SS

12/01/22  
12/01/22

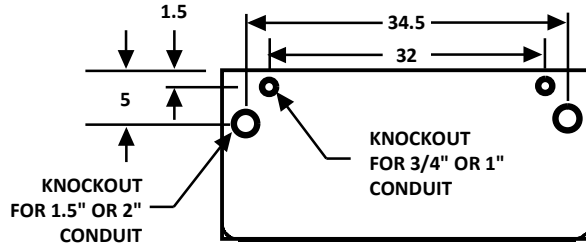
710-TD-010

REVISION  
B

SHEET  
1 OF 1

## 2.1 KW TO 3 KW INVERTER WITH 90 MIN. BACKUP

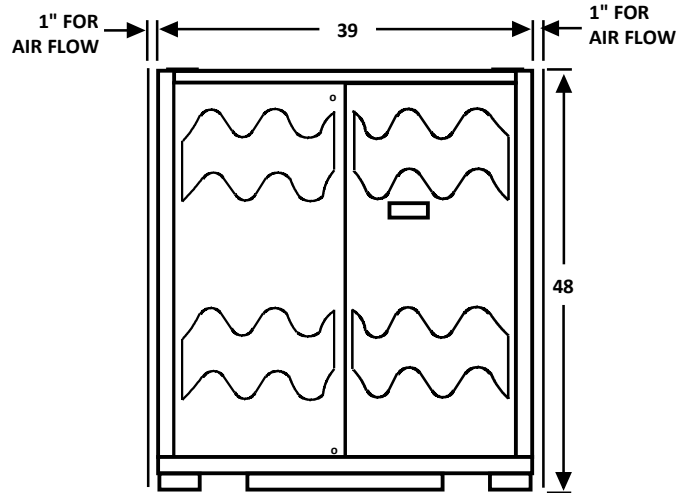
### STD VRLA BATTERY



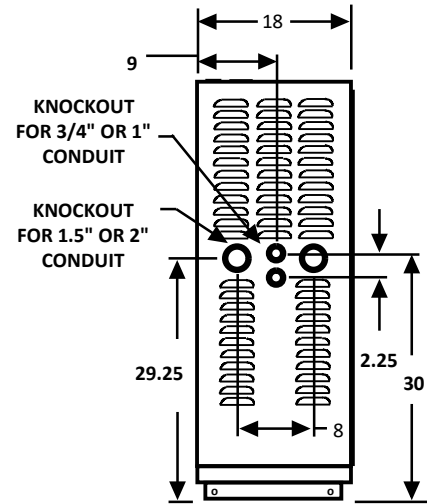
TOP VIEW

#### NOTE(S):

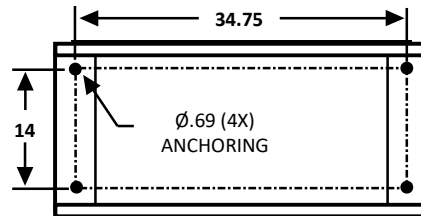
- 1) ALL DIMENSIONS ARE IN INCHES
- 2) OPTIONAL SEISMIC BRACKETS AVAILABLE
- 3) ANCHORING INFORMATION AVAILABLE ON SEISMIC DRAWING



FRONT VIEW

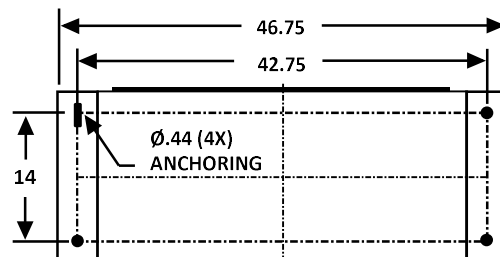


SIDE VIEW



BOTTOM VIEW

### INSTALLATION WITH EXTERNAL SEISMIC BRACKETS FOR ZONE 4



BOTTOM VIEW

SUBJECT TO CHANGE WITHOUT NOTICE



1-PH UPS, POWER RIDE 1  
TECHNICAL DRAWINGS

DRAWN : MT  
APPVD : SS

12/01/22  
12/01/22

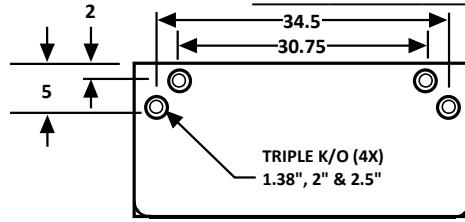
710-TD-011

REVISION  
A

SHEET  
1 OF 1

# 5, 6, & 8 KW INVERTER WITH 90 MIN. BACKUP

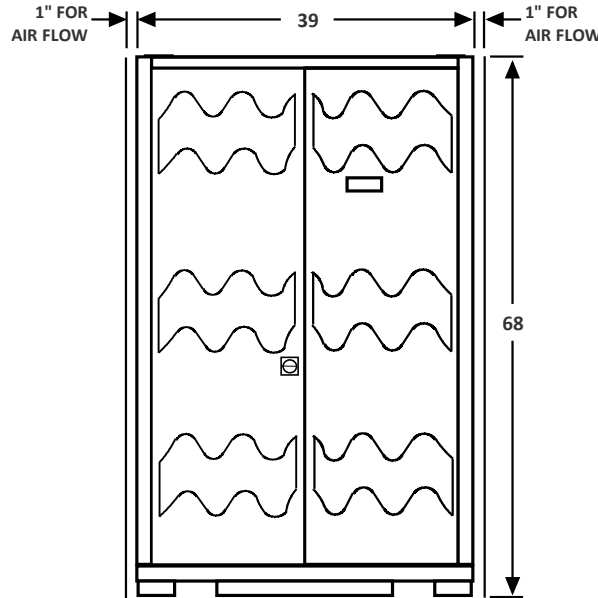
## STD VRLA BATTERY



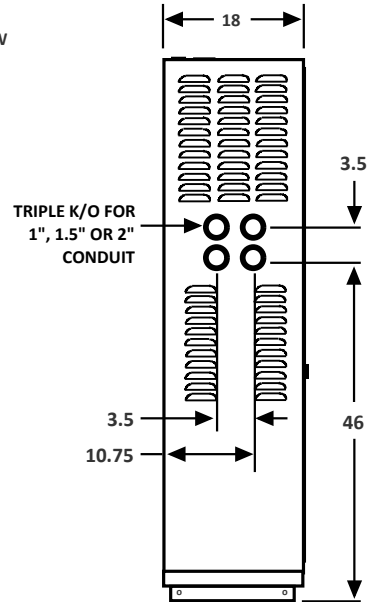
TOP VIEW

### NOTE(S):

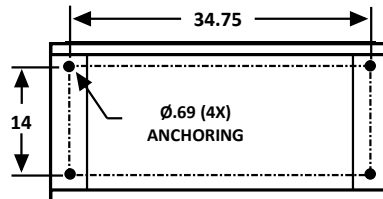
- 1) ALL DIMENSIONS ARE IN INCHES
- 2) OPTIONAL SEISMIC BRACKETS AVAILABLE
- 3) ANCHORING INFO AVAILABLE ON SEISMIC DRAWING



FRONT VIEW

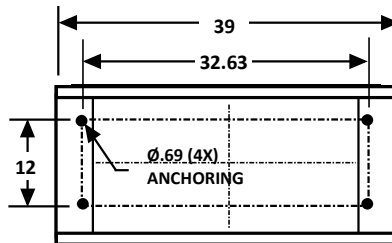


SIDE VIEW



BOTTOM VIEW

## INSTALLATION WITH INTEGRATED SEISMIC MOUNTING FOR ZONE 4



BOTTOM VIEW

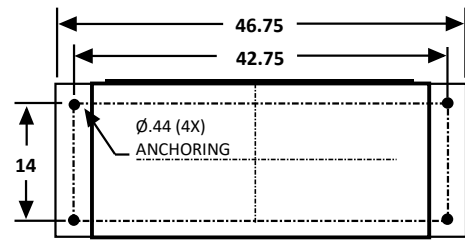
### NOTE(S):

#### ANCHORS FOR INTEGRATED SEISMIC MOUNTING:

1. USE 5/8" DIA x 3-3/4" MIN. EMBED. HILTI KB-TZ ANCHORS, ICC ESR-1917 (LARR#25701) OR APPROVED EQUAL (4) TOTAL PER CABINET, (2) PER ANCHOR BRACKET
2. CONCRETE 5" THICK x 2,500 PSI (MIN. REQ'D).
3. SOIL BEARING PRESSURE 500 PSF (MIN. REQ'D)

FOR ALL DETAILS REFER TO SEISMIC DWG. FOR EACH CABINET MOUNTING

## INSTALLATION WITH EXTERNAL SEISMIC BRACKETS FOR ZONE 4



BOTTOM VIEW

### NOTE(S):

#### ANCHORS FOR EXTERNAL SEISMIC BRACKET:

1. USE 1/2" DIA x 3-1/2" MIN. EMBED. HILTI KB-TZ, ICC ESR-1917 (LARR#25701) OR APPROVED EQUAL (4) TOTAL PER CABINET.
2. CONCRETE: 5" THICK x 2,500 PSI. (MIN. REQ'D).
3. SOIL BEARING PRESSURE: 500 PSF. (MIN. REQ'D).

FOR ALL DETAILS REFER TO SEISMIC DWG. FOR EACH CABINET MOUNTING

SUBJECT TO CHANGE WITHOUT NOTICE



1-PH UPS, POWER RIDE 1  
TECHNICAL DRAWINGS

DRAWN : MT  
APPVD : SS

12/01/22  
12/01/22

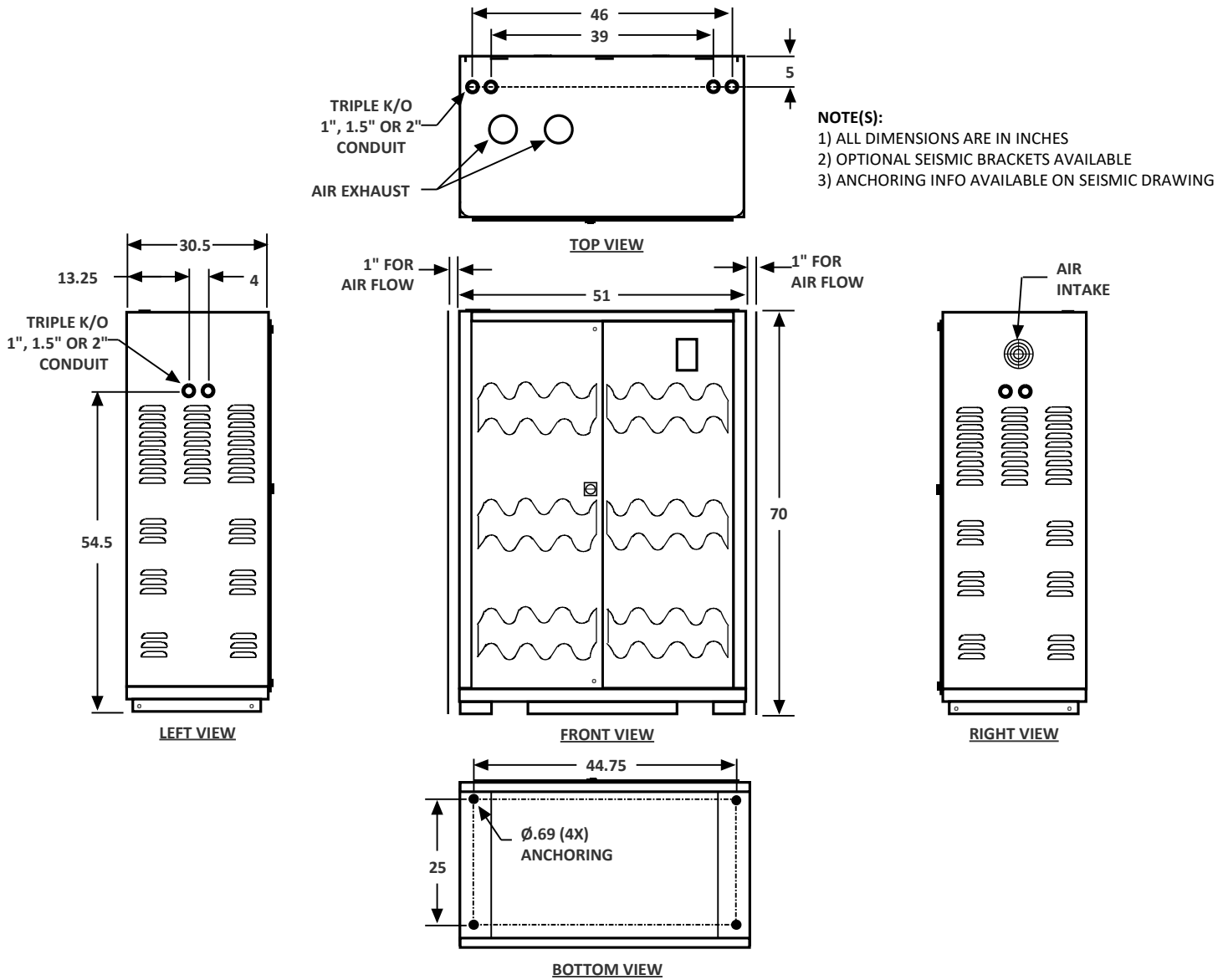
710-TD-012

REVISION  
A

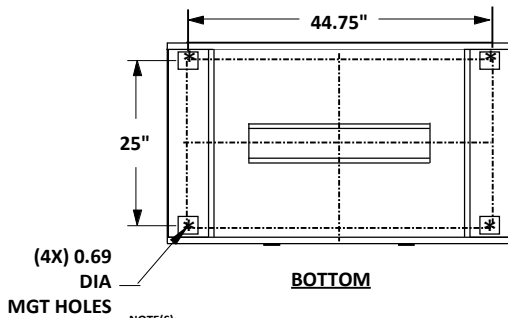
SHEET  
1 OF 1

# 10 KW TO 17 KW INVERTER WITH 90 MIN. BACKUP

## STANDARD VRLA BATTERY



### INSTALLATION WITH INTEGRATED SEISMIC MOUNTING FOR ZONE 4



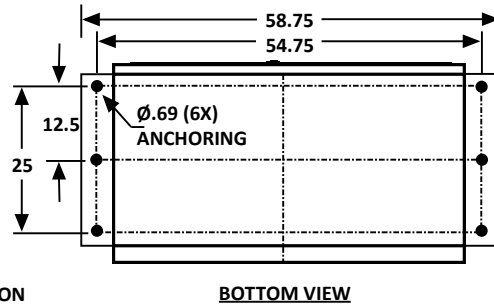
NOTE(S):

#### ANCHORS FOR INTEGRATED SEISMIC MOUNTING:

1. USE 5/8" DIA x 3-3/4" MIN. EMBED. HILTI KB-TZ ANCHORS, ICC ESR-1917 (LARR#25701) OR APPROVED EQUAL
- (4) TOTAL PER CABINET, (2) PER ANCHOR BRACKET
2. CONCRETE 5" THICK x 2,500 PSI (MIN. REQ'D).
3. SOIL BEARING PRESSURE 500 PSF (MIN. REQ'D)

FOR ALL DETAILS REFER TO SEISMIC DWG. FOR EACH CABINET MOUNTING

### INSTALLATION WITH EXTERNAL SEISMIC BRACKETS FOR ZONE 4



NOTE(S):

#### ANCHORS FOR EXTERNAL SEISMIC BRACKET:

1. USE 1/2" DIA x 2-3/8" MIN. EMBED. HILTI KB-TZ, ICC ESR-1917 OR APPROVED EQUAL
- (6) TOTAL PER CABINET.
2. CONCRETE: 5" THICK x 2,500 PSI. (MIN. REQ'D).
3. SOIL BEARING PRESSURE: 500 PSF. (MIN. REQ'D).

FOR ALL DETAILS REFER TO SEISMIC DWG. FOR EACH CABINET MOUNTING

SUBJECT TO CHANGE WITHOUT NOTICE



1-PH UPS, POWER RIDE 1  
TECHNICAL DRAWINGS

DRAWN : MT

12/01/22

APPVD : SS

12/01/22

710-TD-013

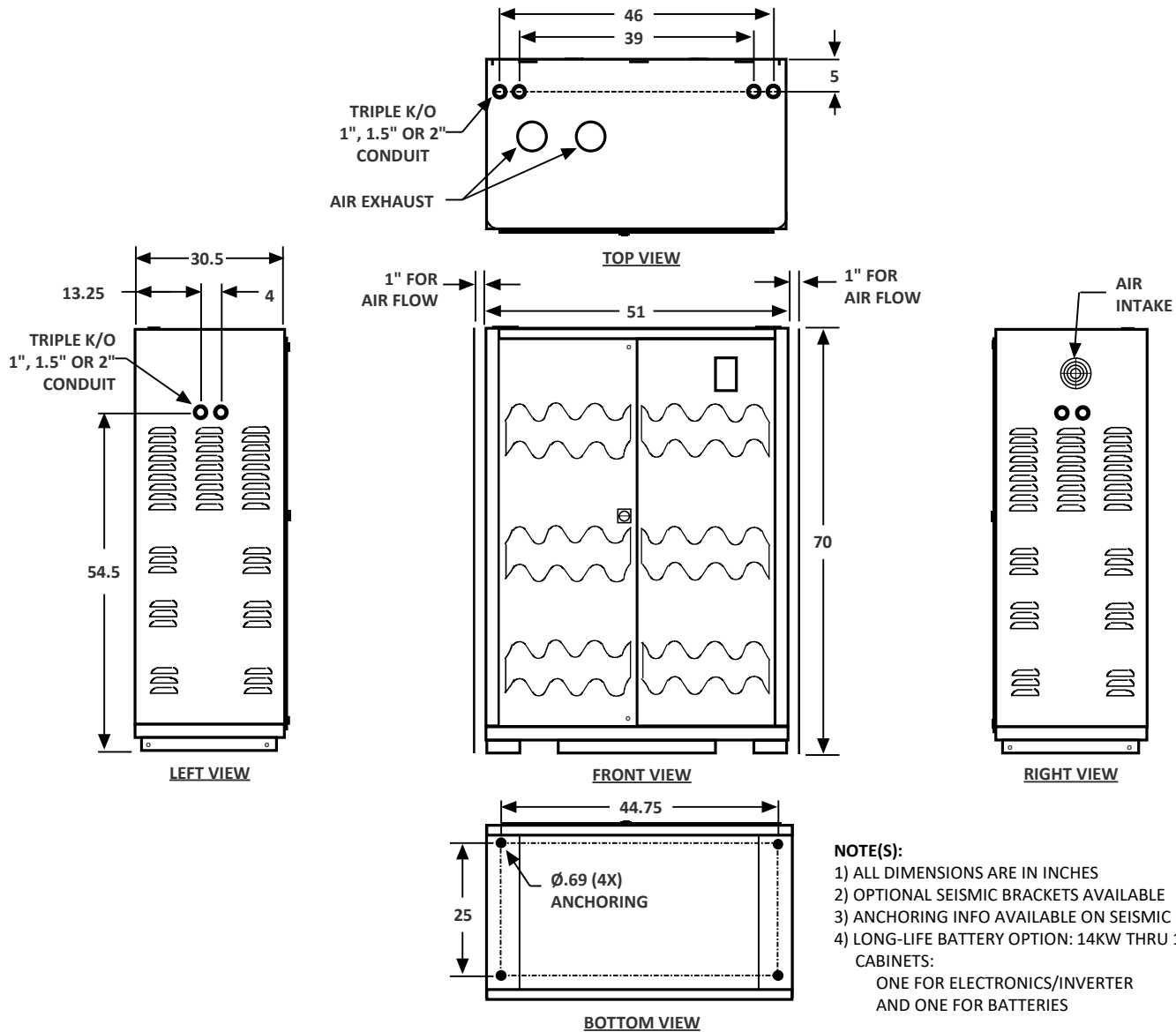
REVISION

A

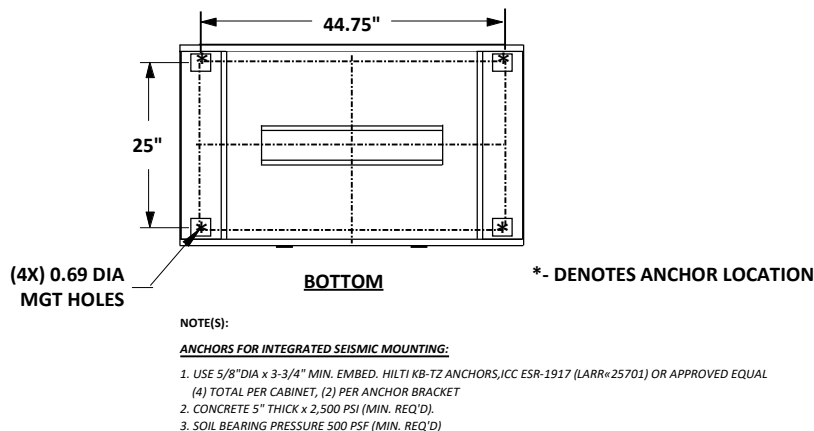
SHEET  
1 OF 1

# 2.1 KW TO 17 KW INVERTER WITH 90 MIN. BACKUP

## LONG LIFE BATTERY

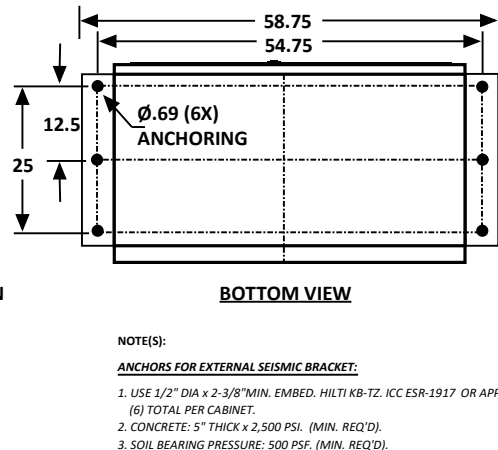


### INSTALLATION WITH INTEGRATED SEISMIC MOUNTING FOR ZONE 4



FOR ALL DETAILS REFER TO SEISMIC DWG. FOR EACH CABINET MOUNTING

### INSTALLATION WITH EXTERNAL SEISMIC BRACKETS FOR ZONE 4



FOR ALL DETAILS REFER TO SEISMIC DWG. FOR EACH CABINET MOUNTING

SUBJECT TO CHANGE WITHOUT NOTICE



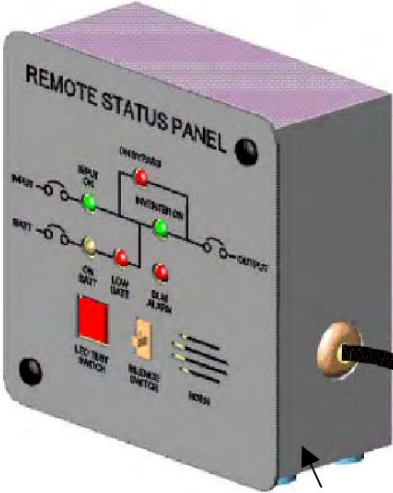
1-PH UPS, POWER RIDE 1  
TECHNICAL DRAWINGS

|            |          |            |            |              |
|------------|----------|------------|------------|--------------|
| DRAWN : MT | 12/01/22 | 710-TD-014 | REVISION A | SHEET 1 OF 1 |
| APPVD : SS | 12/01/22 |            |            |              |

# REMOTE STATUS PANEL

SIDE  
MOUNT  
PROVISION

BACK  
MOUNT  
PROVISION

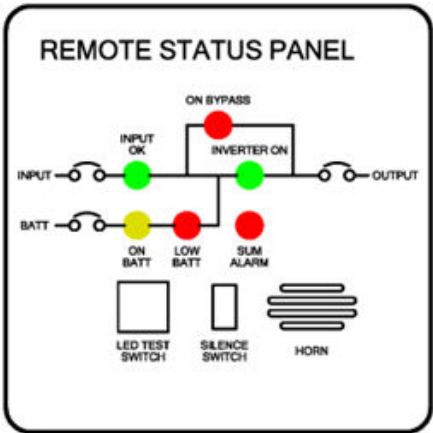


TO UPS P100 TERMINAL  
BLOCK  
SEE INSTALLATION  
INSTRUCTION SHIPPED  
WITH THE ASSEMBLY

USE  
BUMPER  
FOR  
CONSOLE  
INSTALL

## Remote Status Panel displays the following:

|                       |                                                                  |
|-----------------------|------------------------------------------------------------------|
| <b>INPUT OK:</b>      | Input power is within acceptable range                           |
| <b>INVERTER ON:</b>   | Inverter is on                                                   |
| <b>ON BYPASS:</b>     | Unit is on Bypass Mode                                           |
| <b>ON BATT:</b>       | Unit is running from Battery                                     |
| <b>LOW BATT:</b>      | Battery voltage is at low voltage before shutdown                |
| <b>SUM ALARM:</b>     | Unit is on critical alarm such as:<br>Over temperature, DC OV/UV |
| <b>HORN:</b>          | Audible warning for alarm condition                              |
| <b>SILENCE WATCH:</b> | Silences the audible warning                                     |
| <b>LED TEST:</b>      | Tests the LED's by push in                                       |



SUBJECT TO CHANGE WITHOUT NOTICE



REMOTE STATUS PANEL ASSEMBLY

DRAWN : MT

12/01/22

APPVD : SS

12/01/22

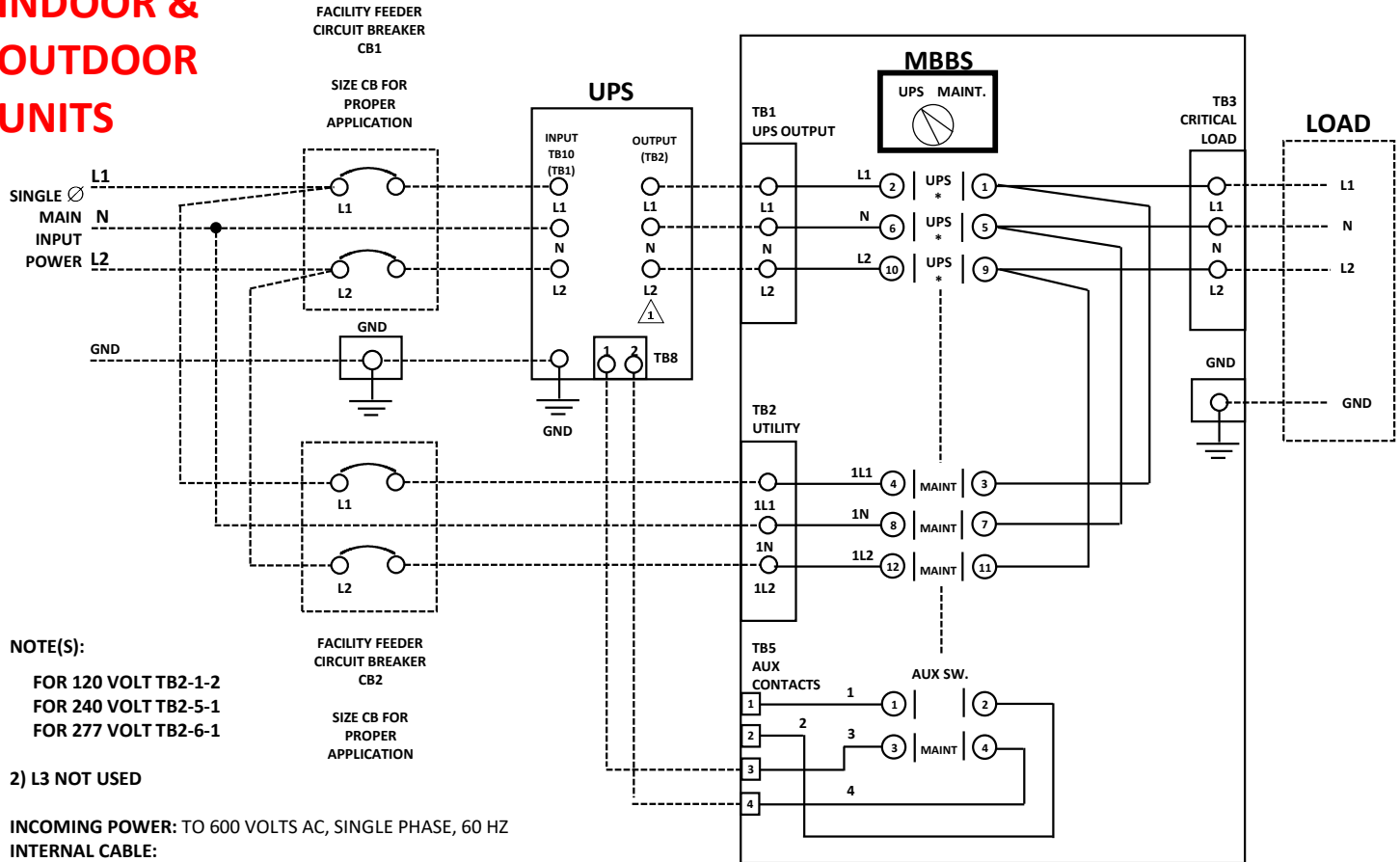
710-SV-TD-014

REVISION  
A

SHEET  
1 OF 1

# SINGLE-PHASE "MAKE BEFORE BREAK" EXTERNAL WRAP AROUND BY-PASS SWITCH

**INDOOR &  
OUTDOOR  
UNITS**

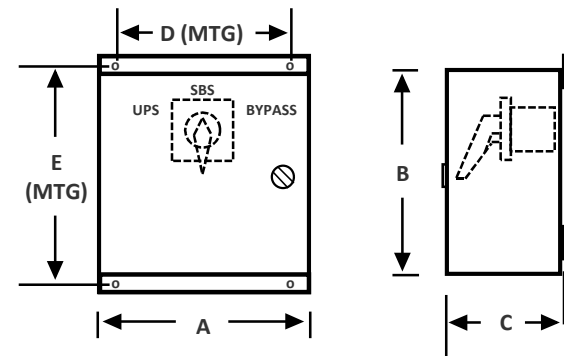


## SWITCH DIMENSIONS

| 3000-046    | 175 AMPS | 20    | 20    | 12    | 18.5        | 18.5        |
|-------------|----------|-------|-------|-------|-------------|-------------|
| 3000-045    | 110 AMPS | 14    | 16    | 10    | 12          | 16.75       |
| 3000-044    | 55 AMPS  | 14    | 16    | 6     | 12          | 16.75       |
| PART NUMBER | RATING   | DIM A | DIM B | DIM C | DIM D (MTG) | DIM E (MTG) |

## SELECTION CHART FOR SINGLE PHASE UPS

| KVA<br>3 | KVA<br>5 | KVA<br>7.5 | KVA<br>10 | KVA<br>15 | KVA<br>20 | FOR<br>WIRING DIAGRAM<br>SEE DWG |
|----------|----------|------------|-----------|-----------|-----------|----------------------------------|
| 3000-044 | 3000-044 | 3000-044   | 3000-045  | 3000-045  | 3000-045  | 6001-032-11-S                    |



## NOTE(S):

- 1) SWITCH CONTACTS ARE SINGLE PHASE L-NEUTRAL "MAKE BEFORE-BREAK".
- 2) CONTACTS MARKED "UPS" ARE CLOSED IN THE "UPS" POSITION.
- 3) CONTACTS MARKED "BYPASS" ARE CLOSED IN THE "BYPASS" POSITION.
- 4) CONTACTS MARKED "SBS" ARE CLOSED IN THE "SBS" POSITION.
- 5) WRAP AROUND BY-PASS SWITCH SHOULD BE USED WITH SAME INPUT/OUTPUT VOLTAGE
- 6) WRAP AROUND BY-PASS SWITCH CAN ONLY BE USED WITHOUT ANY BUILT IN SECONDARY DISTRIBUTION CIRCUIT BREAKER IN UPS.

SUBJECT TO CHANGE WITHOUT NOTICE



**1-PH UPS, POWER RIDE 1  
TECHNICAL DRAWINGS**

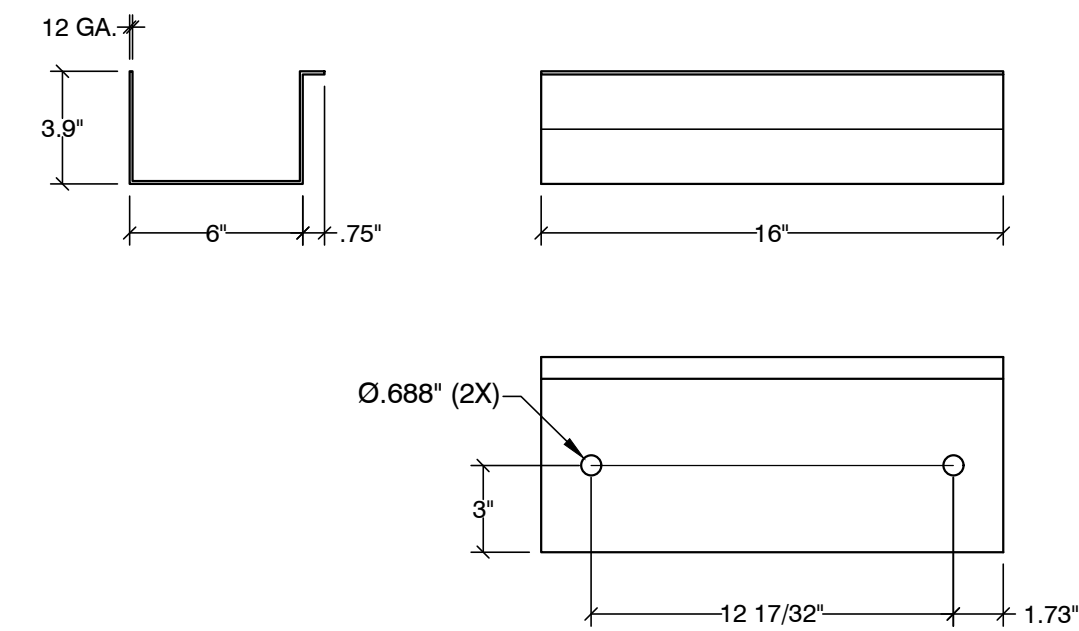
DRAWN : MT  
APPVD : SS

12/01/22  
12/01/22

710-TD-015

REVISION  
A

SHEET  
1 OF 1



**NOTES:**

1. DESIGNED PER THE 2021 IBC / 2022 CBC / 2023 LABC,  
Fa = 1.2 & Ss = 1.82
2. STORAGE CAPACITY: **2,150#** MAX. WEIGHT.
3. ANCHORS: HILTI KWIK BOLT TZ 2.  
ICC #**ESR-4266** W/ LABC SUPPLEMENT
4. CONCRETE: **5" THICK x 2,500 PSI.**
5. SOIL BEARING PRESSURE: **500 PSF.** (MIN. REQ'D).
6. EVALUATION BASED ON NORTHRIDGE LOCATION  
(ONE OF THE HIGHEST LA FAULT AREAS)  
WITH THE FOLLOWING CALCULATION AS A TYPICAL EXAMPLE:  
(ASSUMED GROUND FLOOR INSTALLATION)

ANALYSIS BASED ON SECTION 13.3 OF THE ASCE 7-16 SPECIFICATION  
REFERENCED IN CHAPTER 16 OF THE 2021 IBC/2022 CBC/2023 LABC

|                                                          |            |                           |
|----------------------------------------------------------|------------|---------------------------|
| Fp (13.3-1)= 0.4 x ap x S <sub>D5</sub> x Wp / [Rp / lp] | 0.234 x Wp |                           |
| Fp (13.3-2)= 1.6 x S <sub>D5</sub> x lp x Wp             | 2.336 x Wp | SHALL NOT BE GREATER THAN |
| Fp (13.3-3)= 0.3 x S <sub>D5</sub> x lp x Wp             | 0.438 x Wp | SHALL NOT BE LESS THAN    |

SITE CLASS = D  
 Fa = **1.2**  
 Ss = **1.82**  
 Sps = 1.46  
 Ip = 1.00  
 Rp = 2.5  
 ap = 1

ASCE 7-16 Table 13.5-1  
 ASCE 7-16 Table 13.5-1

$W_p = 2150 \text{ LB}$

$$\begin{aligned} 0.7F_p &= 0.7 \times 0.438 \times W_p \\ &= 0.31 \times 2150 \text{ LB} \\ &= 659 \text{ LB} \end{aligned}$$

CABINET HEIGHT,  $H_t = 68.0$  IN  
ANCHORS SPACING,  $D = 12.0$  IN

$$\begin{aligned} \text{Mot} &= V_{\text{total}} * (1/2 \text{ Ht}) \\ &= 659 \text{ LB} * 68 \text{ IN} * 1/2 \\ &= 22,412 \text{ IN-LB} \end{aligned}$$
$$\begin{aligned} M_{st} &= W_p \cdot D/2 \\ &= 2150 \text{ LB} \cdot 12 \text{ IN}/2 \\ &= 12,900 \text{ IN-LB} \end{aligned}$$
$$\begin{aligned}\text{Puplift} &= (\text{Mot} - 0.6 * \text{Mst}) / \text{D} \\ &= (22412 \text{ IN-LB} - 0.6 * 12900 \text{ IN-LB}) / 12 \text{ IN} \\ &= 1223 \text{ LB} \quad \leq \text{UPLIFT}\end{aligned}$$

**ANCHORS**  
**ALLOWABLE CAPACITY PER ICC REPORT AND ACI 318-19 CHAPTER 17**  
PULLOUT : 1170 LB       $T_{\text{allowable, ASD}}$   
SHEAR : 2390 LB       $V_{\text{allowable, ASD}}$

$$\begin{aligned}\text{COMBINED STRESS} &= (1223 \text{ LB}/2340 \text{ LB}) + (659 \text{ LB}/9560 \text{ LB}) \\ &= 0.59 < 1.2 \text{ OK}\end{aligned}$$

USE 1/2"Ø x 3"MIN. EMBED. HILTI KB-T22 (ICC ESR-4266) OR APPROVED EQUAL  
(4) PER CABINET, (2) PER ANCHOR BRACKET

|  |  |  |  |  |
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| REV. | DATE | BY | DESCRIPTION |
|------|------|----|-------------|
| △    |      |    |             |
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| △    |      |    |             |
| △    |      |    |             |



EST. 1985  
**SEIZMIC**  
**ENGINEERING, INC.**  
1130 E. Cypress St.  
Covina, California  
91724  
Tel. (909) 869-0989

|               |               |
|---------------|---------------|
| DRAWN BY:     | M.V. / T.C.   |
| DATE:         | 01/11/23      |
| LAST REV. BY: |               |
| REV. DATE:    |               |
| TYPE:         |               |
| SCALE:        | N.T.S.        |
| APRVD BY:     | SAL E. FATEMI |



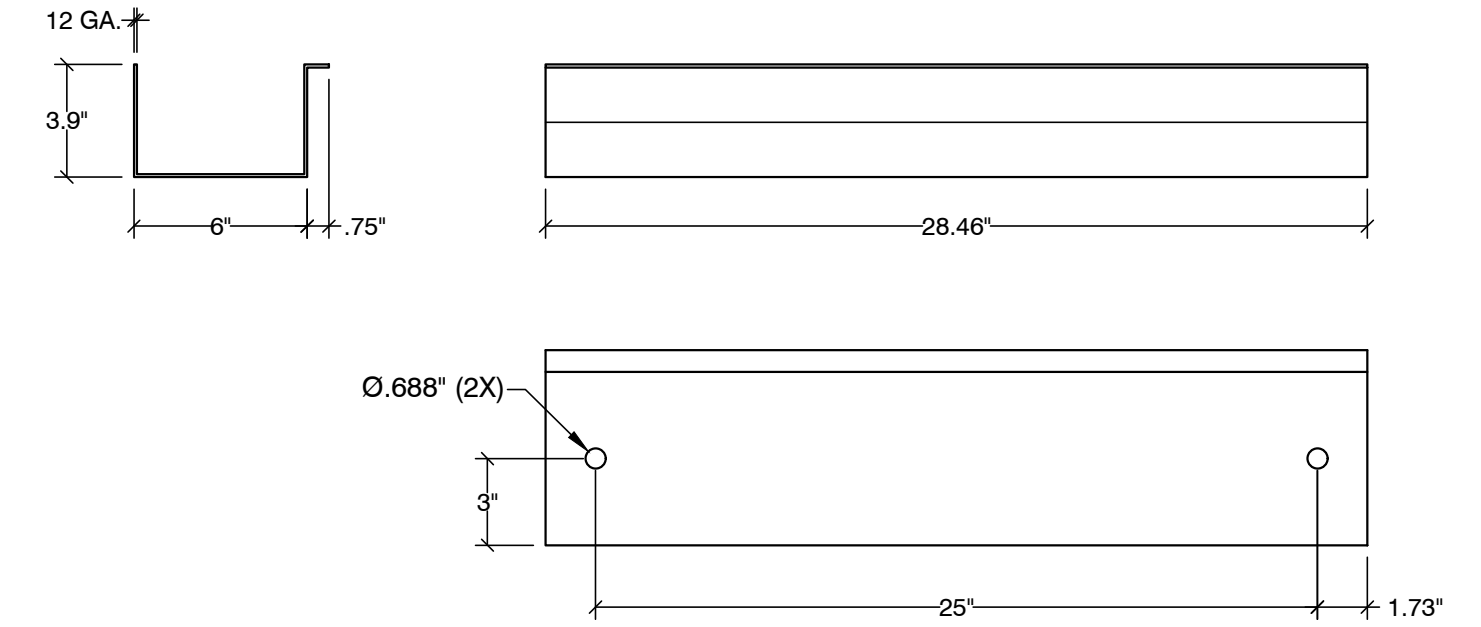
EXPIRES  
12-31-2025

**DESCRIPTION:**

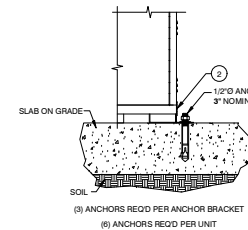
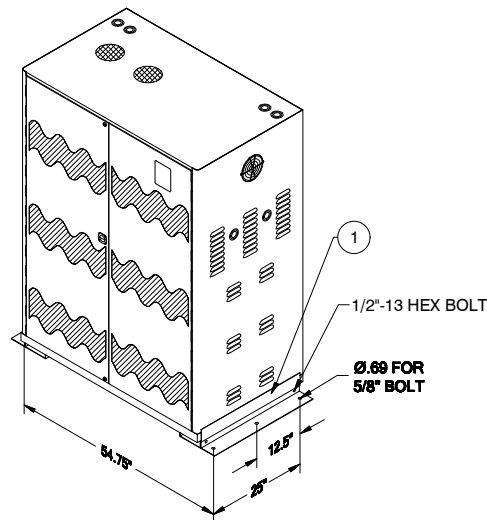
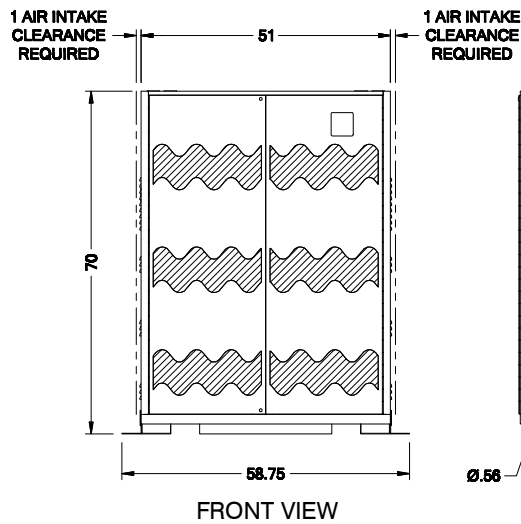
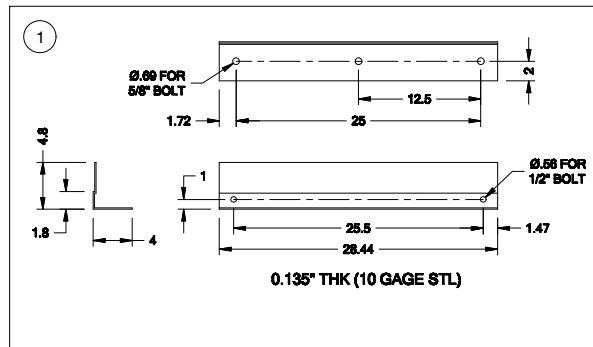
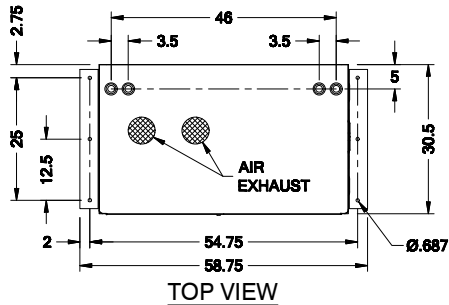
## CABINET DETAILS

DRAWING NUMBER:  
**23-0067-A**









- NOTES:**
- DESIGNED PER THE 2021 IBC / 2022 CBC / 2023 IABC.
  - STORAGE CAPACITY: 4,640# MAX. WEIGHT.
  - ANCHORS: HILTI KWIK BOLT T2 Z.
  - CONCRETE: 4\"/>

#### LOADS & DISTRIBUTION: CABINET

ANALYSIS BASED ON SECTION 13.3 OF THE ASCE 7-16 SPECIFICATION  
REFERENCED IN CHAPTER 16 OF THE 2021 IBC/2022 CBC/2023 IABC

|                                                                        |                    |                                                     |
|------------------------------------------------------------------------|--------------------|-----------------------------------------------------|
| $F_p$ (13.3-1): $0.4 \times ap \times S_{ps} \times W_p / (R_p / I_p)$ | $0.234 \times W_p$ | SHALL NOT BE GREATER THAN<br>SHALL NOT BE LESS THAN |
| $F_p$ (13.3-2): $1.6 \times S_{ps} \times I_p \times W_p$              | $2.336 \times W_p$ |                                                     |
| $F_p$ (13.3-3): $0.3 \times S_{ps} \times I_p \times W_p$              | $0.438 \times W_p$ |                                                     |

SITE CLASS = D

$F_a = 1.2$

$S_s = 1.83$

$S_{ps} = 1.46$

$I_p = 1.00$

$ap = 2.5$

$ap = 1$

ASCE 7-16 Table 13.5-1

ASCE 7-16 Table 13.5-1

$W_p = 4640 \text{ LB}$

$D \cdot F_p = 0.7 \cdot D \cdot 438 \cdot W_p$

$= 0.31 \cdot 4640 \text{ LB}$

$= 1,423 \text{ LB}$

#### OVERTURNING ANALYSIS:

CABINET HEIGHT,  $H = 70.0 \text{ IN}$

ANCHORS SPACING,  $D = 25.0 \text{ IN}$

$M_{ot} = V_{total} \cdot H / 2$

$= 1423 \text{ LB} \cdot 70 \text{ IN} \cdot 1/2$

$= 49,792 \text{ IN-LB}$

$M_{st} = W_p \cdot D / 2$

$= 4640 \text{ LB} \cdot 25 \text{ IN} / 2$

$= 58,000 \text{ IN-LB}$

$P_{u\text{lift}} = (M_{ot} - 0.6 \cdot M_{st}) / D$

$= (49,792 \text{ IN-LB} - 0.6 \cdot 58,000 \text{ IN-LB}) / 25 \text{ IN}$

$= 600 \text{ LB}$

$\leq UPLIFT$

#### ANCHORS

ALLOWABLE CAPACITY PER ICC REPORT AND ACI 318-14 CHAPTER 17

PULLOUT:  $1170 \text{ LB}$

SHEAR:  $2590 \text{ LB}$

$V_{allowable, ACI}$

COMBINED STRESS  $= (600 \text{ LB} / 3510 \text{ LB}) + (1423 \text{ LB} / 14340 \text{ LB})$

$< 0.27$

USE 1/2"  $\times$  3" MIN. EMBED. HILTI KB-T22 (ICC ESR-4266) OR APPROVED EQUAL

(6) PER CABINET

**POWER COMPANY**  
NORTHBRIDGE, CA 91364

NOTES:

| NO. | DESCRIPTION |
|-----|-------------|
| 1   |             |
| 2   |             |
| 3   |             |
| 4   |             |
| 5   |             |
| 6   |             |
| 7   |             |
| 8   |             |
| 9   |             |
| 10  |             |

| REV. | DATE | BY | DESCRIPTION |
|------|------|----|-------------|
| 1    |      |    |             |
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| 10   |      |    |             |

|                             |
|-----------------------------|
| <b>SEIZMIC</b>              |
| EST. 1980                   |
| ENGINEERING, INC.           |
| 1108 E. Cypress St.         |
| Covina, California          |
| 91724                       |
| Tel. (909) 869-0989         |
| DRAWN BY: M.V. / T.C.       |
| DATE: 01/25/24              |
| CHECKED BY:                 |
| REV. DATE:                  |
| TYPE:                       |
| SCALE: N.T.S.               |
| APPROVED BY: SALE / PATRICK |



| DESCRIPTION     |
|-----------------|
| CABINET DETAILS |

| DRAWING NUMBER |
|----------------|
| 24-0186-B      |

CABINET ELEVATIONS

CALCULATIONS