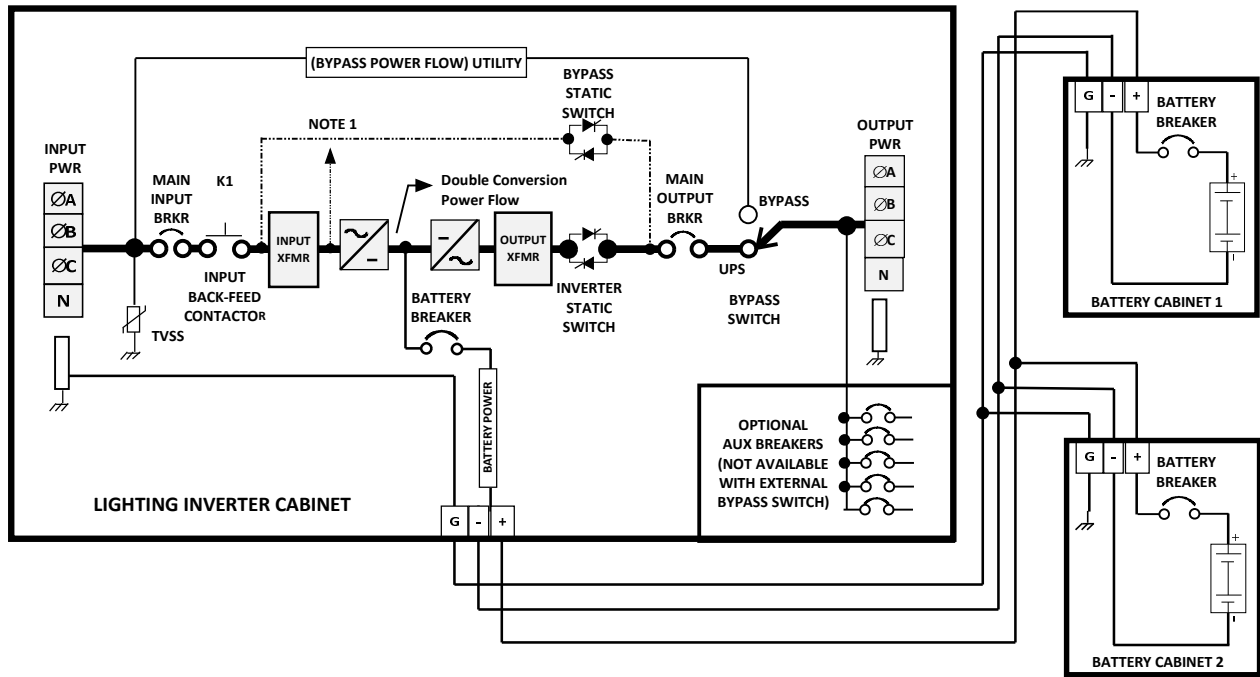
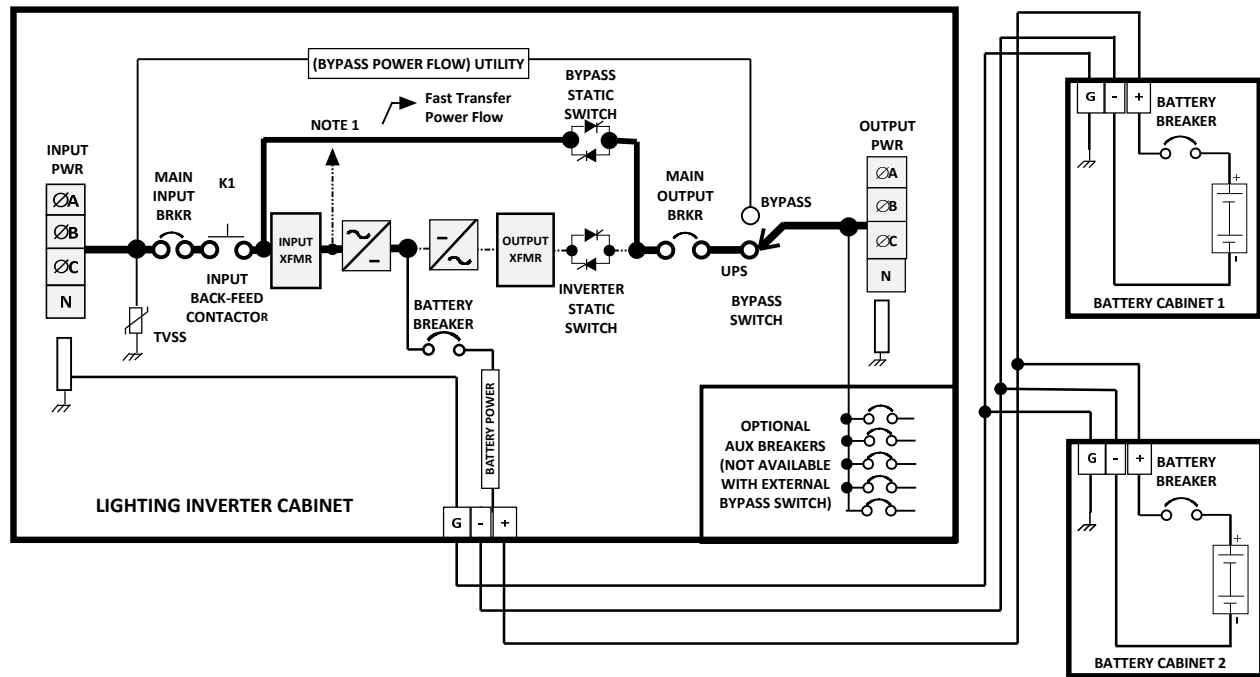


# 3 PHASE LIGHTING INVERTER TYPICAL SINGLE LINE DIAGRAM

## DOUBLE CONVERSION UNITS (STANDARD)



## FAST TRANSFER UNITS (OPTIONAL)



### NOTE(S):

1. STATIC BYPASS AND MANUAL BYPASS WILL BE POWERED FROM THE TRANSFORMER FOR DIFFERENT INPUT AND OUTPUT VOLTAGE CONFIGURATIONS.
2. OPTIONAL DELTA INPUT POWER AVAILABLE USING EXTERNAL TRANSFORMER, TRANSFORMER MUST BE SIZED MIN 25% LARGER THAT UPS CAPACITY.
3. BOLD LINE INDICATES THE NORMAL (DOUBLE CONVERSION) POWER FLOW.
4. OPTIONAL EXTERNAL WRAP AROUND BYPASS SWITCH IS AVAILABLE.

SUBJECT TO CHANGE WITHOUT NOTICE



TYPICAL 3-PH LIGHTING INVERTER  
SINGLE LINE DIAGRAM

DRAWN : SS

9/7/22

APPVD : HN

9/7/22

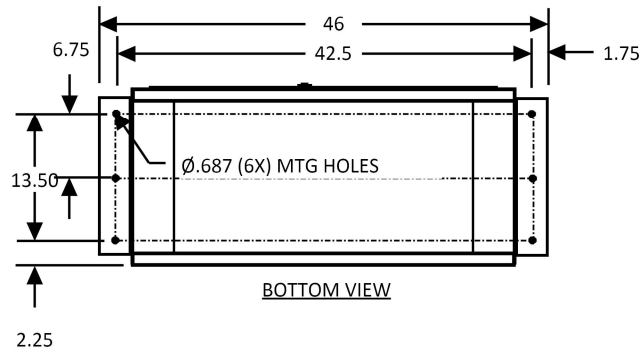
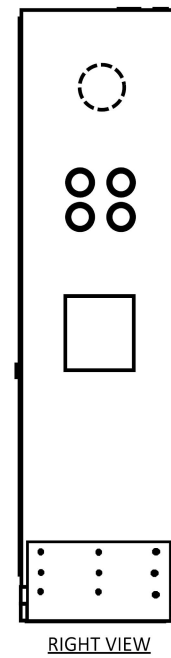
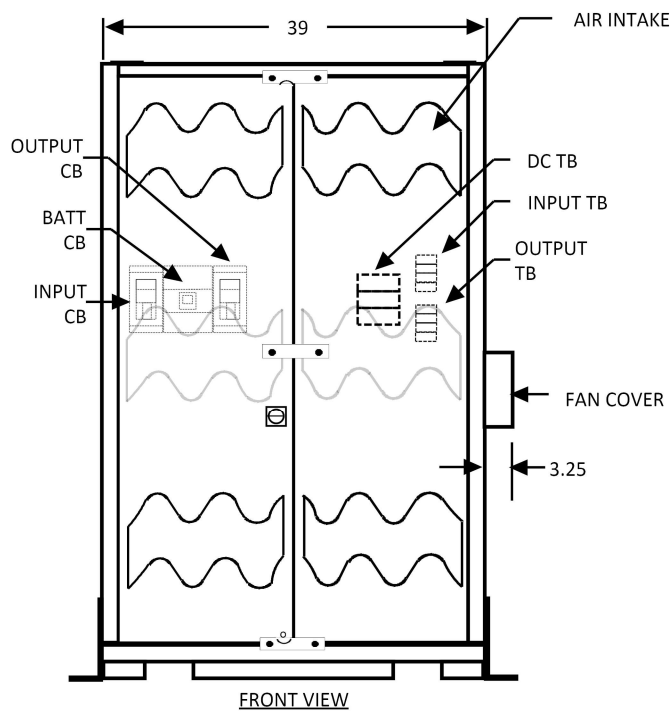
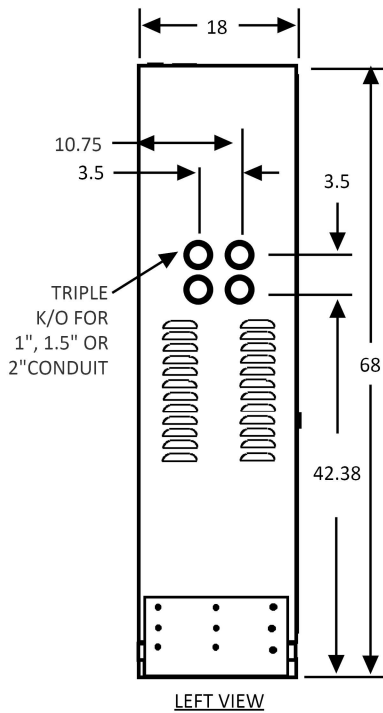
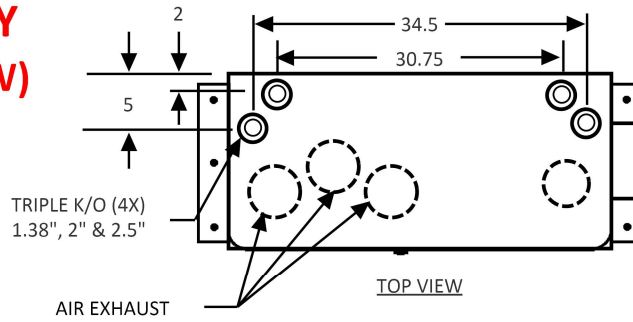
715-TD-010

REVISION  
B

SHEET  
1 OF 1

# POWER RIDE 3 CENTRAL LIGHTING INVERTER SHAKER TABLE TEST CERTIFIED BY ( HCAI )

**ELECTRONIC  
CABINET ONLY  
( 8 KW TO 50 KW )**



## NOTE(S):

- 1) CONSTRUCTION: NEMA1 INDOOR.
- 2) SHAKE TABLE TESTED.



POWER RIDE 3  
SHAKER TABLE TESTED  
INVERTER CABINET

DRAWN : MT  
APPVD : SHERRI S.

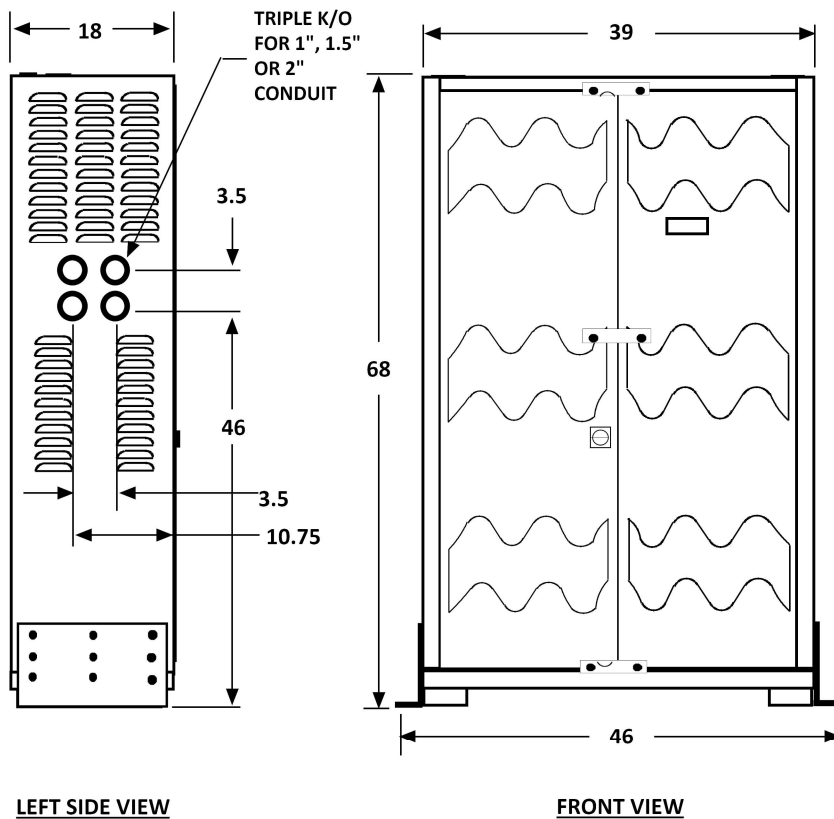
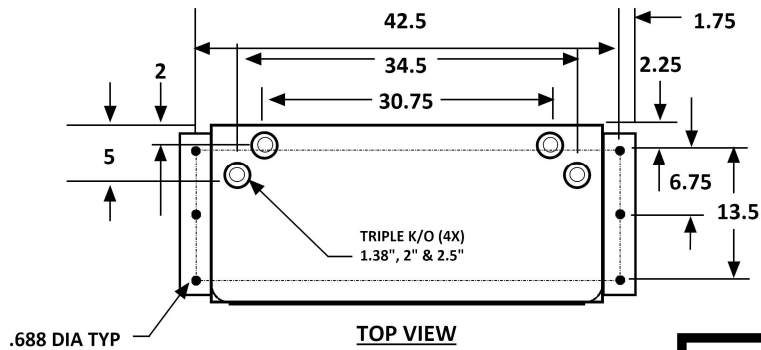
12/26/22  
12/26/22

715-SV-TD-011

REVISION  
A

SHEET  
1 OF 1

# BATTERY CABINET (12KVA/8KW), STANDARD VRLA BATTERY SHAKER TABLE TEST CERTIFIED BY ( HCAI )



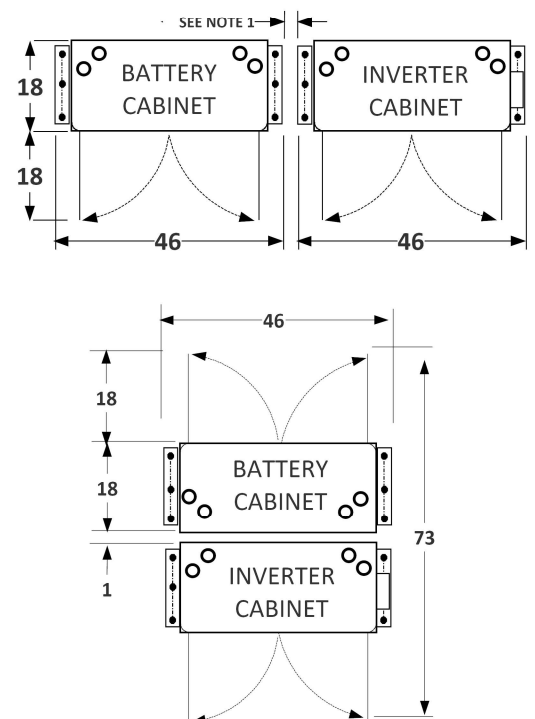
## NOTE(S):

- 1) SPACING IS OPTIONAL NOT REQUIRED BY MFR.
- 2) CONSTRUCTION: NEMA1 INDOOR.
- 3) SHAKE TABLE TESTED.

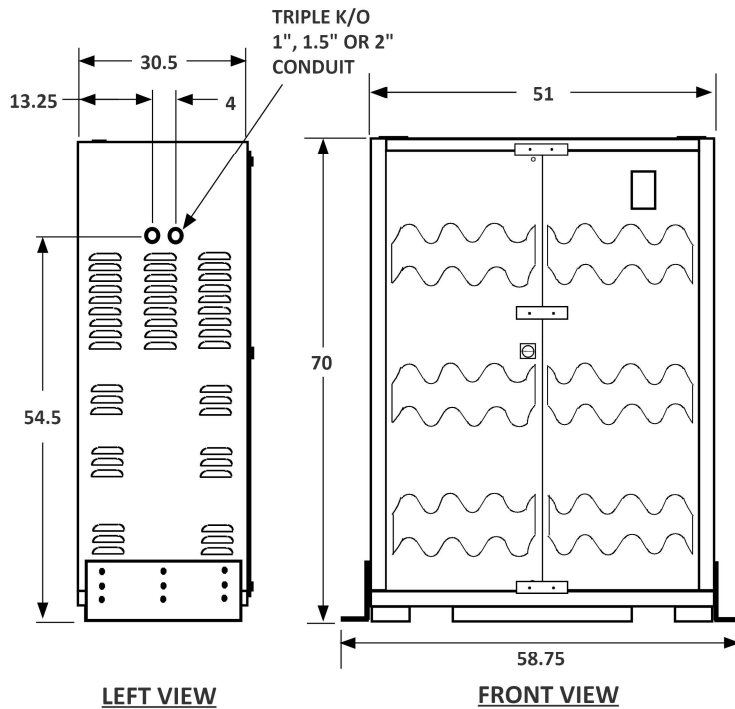
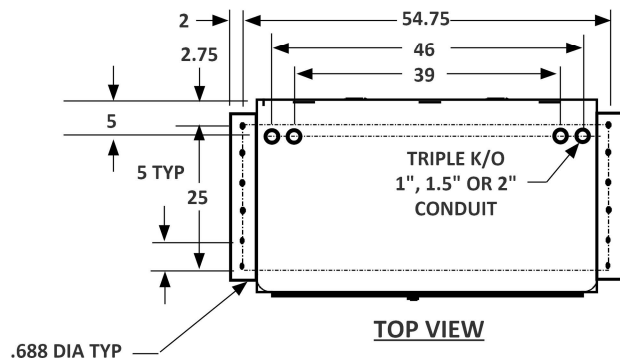
## RECOMMENDED SYSTEM LAYOUT

### STANDARD VRLA BATTERY

KVA/KW	BATTERY CABINET QTY 90 MIN.	BATTERY CABINET QTY 120 MIN.
10KVA/8KW	1	1



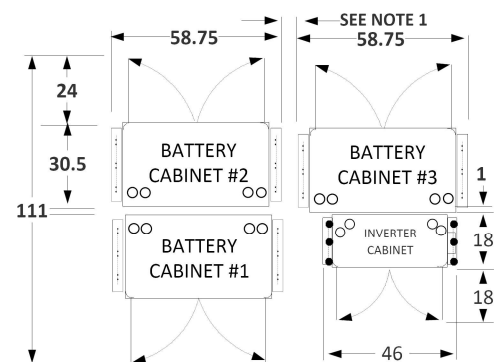
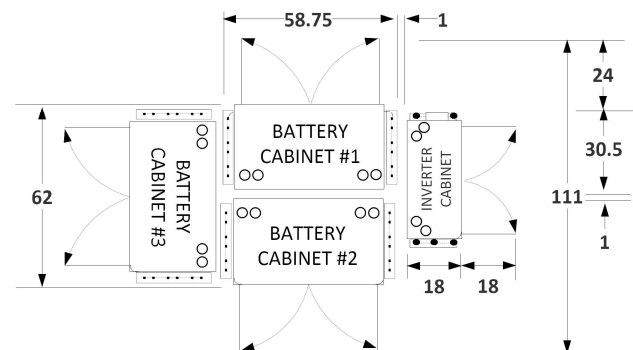
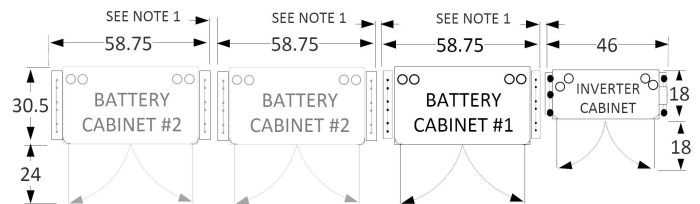
# BATTERY CABINET (12 KW TO 50 KW), STANDARD VRLA BATTERY SHAKER TABLE TEST CERTIFIED BY ( HCAI )



## RECOMMENDED SYSTEM LAYOUT

### STANDARD VRLA BATTERY

KVA/KW	BATTERY CABINET QTY 90 MIN.	BATTERY CABINET QTY 120 MIN.
15KVA/12KW	1	1
20KVA/16KW	1	1
25KVA/20KW	1	1
30KVA/24KW	1	2
40KVA/32KW	2	2
50KVA/40KW	2	2
50KW	2	3



### NOTE(S):

- 1) SPACING IS OPTIONAL NOT REQUIRED BY MFR.
- 2) CONSTRUCTION: NEMA1 INDOOR.
- 3) SHAKE TABLE TESTED.



POWER RIDE 3  
SHAKER TABLE TESTED  
BATTERY CABINET (51" WIDE)

DRAWN : MT

12/26/22

APPVD : SHERRI S.

12/26/22

715-SV-TD-013

REVISION

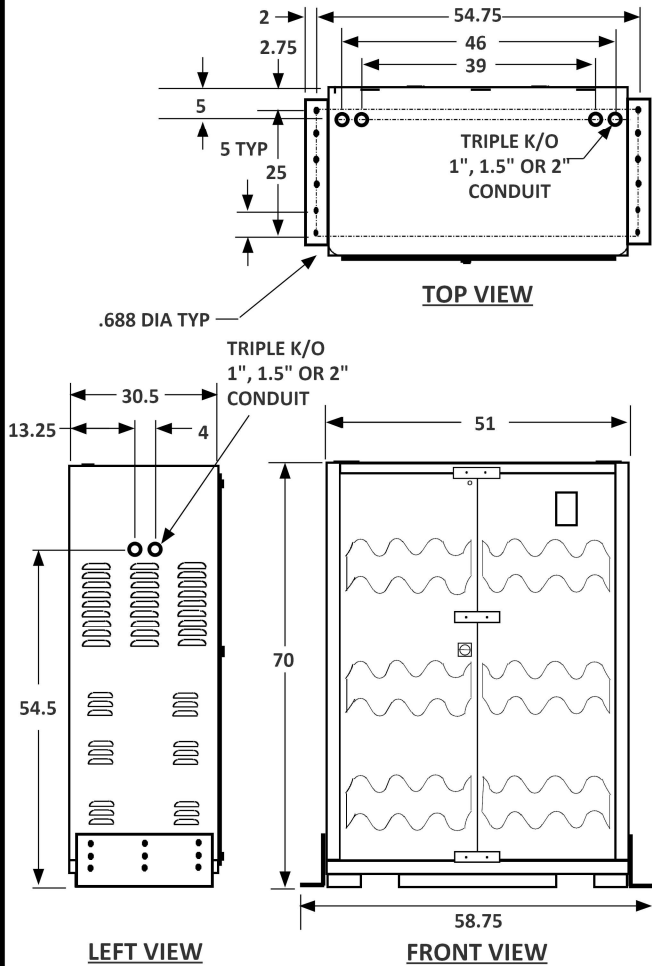
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1 OF 1



# BATTERY CABINET (8 KW TO 50 KW), LONG LIFE BATTERY SHAKE TABLE TESTED CERTIFIED BY (HCAI)

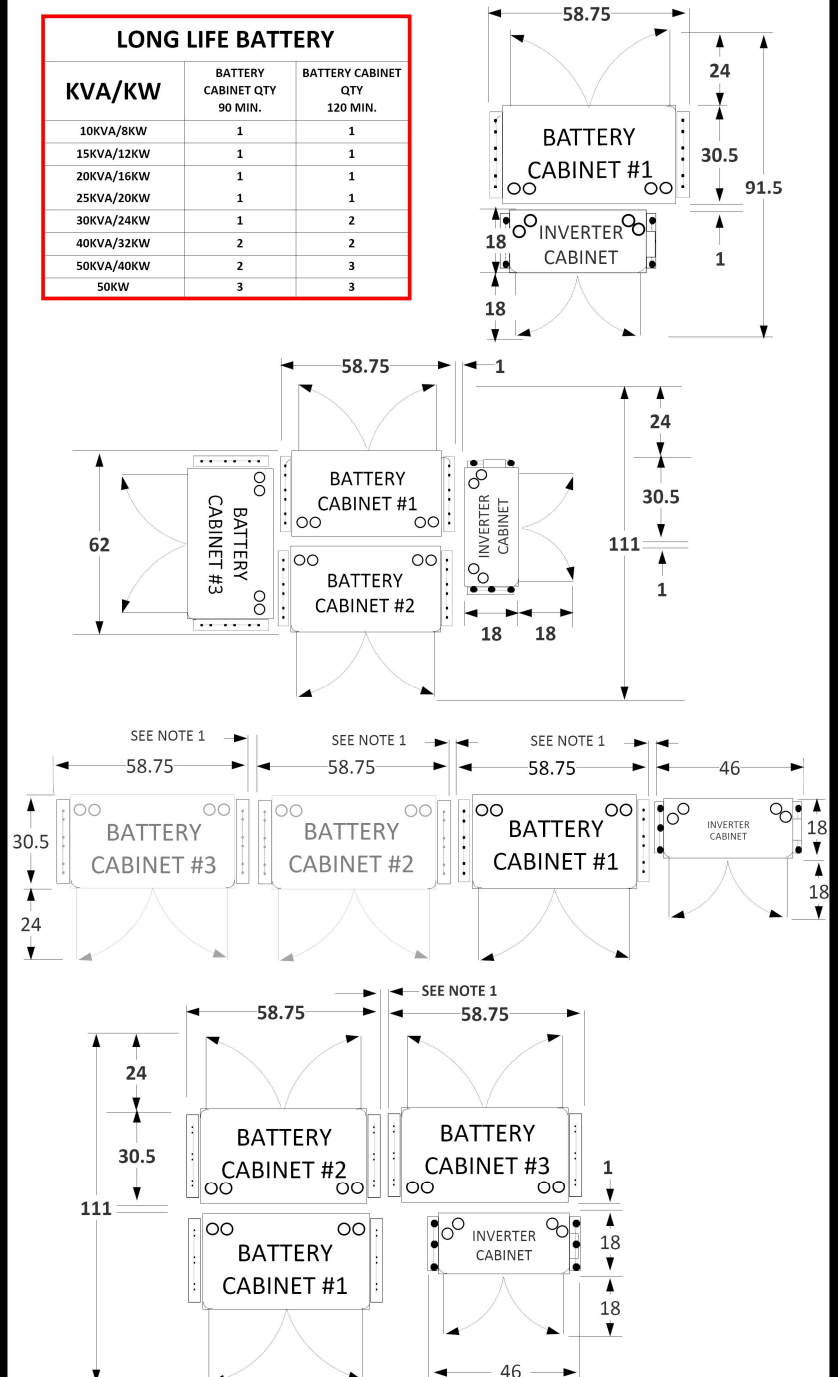


## NOTE(S):

- 1) SPACING IS OPTIONAL NOT REQUIRED BY MFR.
- 2) CONSTRUCTION: NEMA1 INDOOR.
- 3) SHAKE TABLE TESTED.

## RECOMMENDED SYSTEM LAYOUT

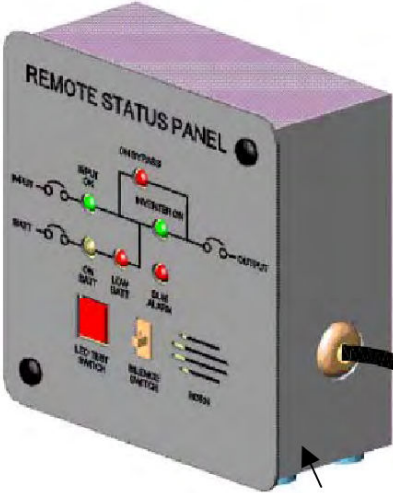
LONG LIFE BATTERY		
KVA/KW	BATTERY CABINET QTY 90 MIN.	BATTERY CABINET QTY 120 MIN.
10KVA/8KW	1	1
15KVA/12KW	1	1
20KVA/16KW	1	1
25KVA/20KW	1	1
30KVA/24KW	1	2
40KVA/32KW	2	2
50KVA/40KW	2	3
50KW	3	3



# REMOTE STATUS PANEL

SIDE  
MOUNT  
PROVISION

BACK  
MOUNT  
PROVISION

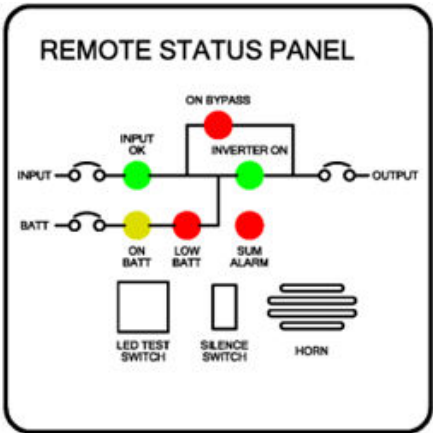


TO UPS P100 TERMINAL  
BLOCK  
SEE INSTALLATION  
INSTRUCTION SHIPPED  
WITH THE ASSEMBLY

USE  
BUMPER  
FOR  
CONSOLE  
INSTALL

## Remote Status Panel displays the following:

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

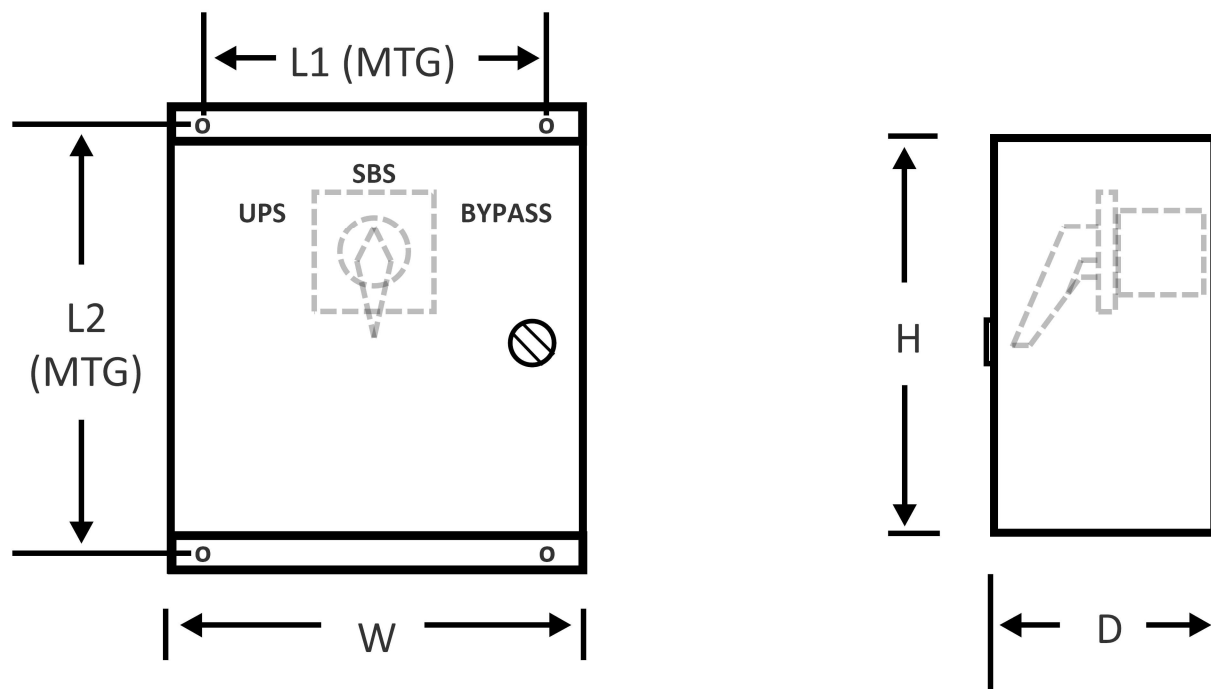
710-SV-TD-014

REVISION  
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SHEET  
1 OF 1

# MAKE BEFORE BREAK EXTERNAL WRAP AROUND BY-PASS SWITCH

350 AMPS	600V	30	36	16	28.5	34.5
240 AMPS	600V	30	30	12	28.5	28.5
175 AMPS	600V	20	20	12	18.5	18.5
110 AMPS	600V	14	16	10	12	16.75
55 AMPS	600V	14	16	8	12	16.75
RATING	VOLTAGE	DIM W	DIM H	DIM D	DIM L1 (MTG)	DIM L2 (MTG)



## NOTE(S):

- 1) SWITCH CONTACTS ARE THREE 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 IS FOR SAME INPUT/OUTPUT VOLTAGES ONLY
- 6) WRAP AROUND BY-PASS SWITCH CAN ONLY BE USED WITHOUT ANY BUILT-IN SECONDARY DISTRIBUTION CIRCUIT BREAKERS IN UPS

SUBJECT TO CHANGE WITHOUT NOTICE



POWER RIDE 3 / 4 EXTERNAL  
BYPASS SWITCH

DRAWN : SS  
APPVD : HN

4/17/24  
4/17/24

715-TD-016

REVISION  
A

SHEET  
1 OF 1



DEPARTMENT OF HEALTH CARE ACCESS AND INFORMATION  
FACILITIES DEVELOPMENT DIVISION

APPLICATION FOR HCAI SPECIAL SEISMIC  
CERTIFICATION PREAPPROVAL (OSP)

OFFICE USE ONLY

APPLICATION #: OSP-0501

HCAI Special Seismic Certification Preapproval (OSP)

Type: ☐ New ☒ Renewal

Manufacturer Information

Manufacturer: Perfect Power Systems

Manufacturer's Technical Representative: Sherri Shahsavari

Mailing Address: 14000 S Broadway, Los Angeles, CA 90061

Telephone: (323) 721-5017

Email: sherris@onlinepower.com

Product Information

Product Name: UPS and Batteries

Product Type: Lighting Inverter Systems

Product Model Number: See Attachment

General Description: Single phase or three phase emergency lighting inverter with battery backup inside of a carbon steel electrical cabinet enclosure.

Mounting Description: Rigid, Floor Mounted

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: Galen Reid

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

Telephone: (541) 604-7225

Email: greid@structint.com

Title: Director, TRU Compliance



DEPARTMENT OF HEALTH CARE ACCESS AND INFORMATION  
FACILITIES DEVELOPMENT DIVISION

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

Company Name: STRUCTURAL INTEGRITY ASSOCIATES, INC.

Name: Andrew Coughlin California License Number: S6082

Mailing Address: 5215 Hellyer Ave, Suite 101, San Jose, CA 95138-1025

Telephone: (415) 635-8461 Email: acoughlin@structint.com

Certification Method

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

☐ Other (Please Specify): \_\_\_\_\_

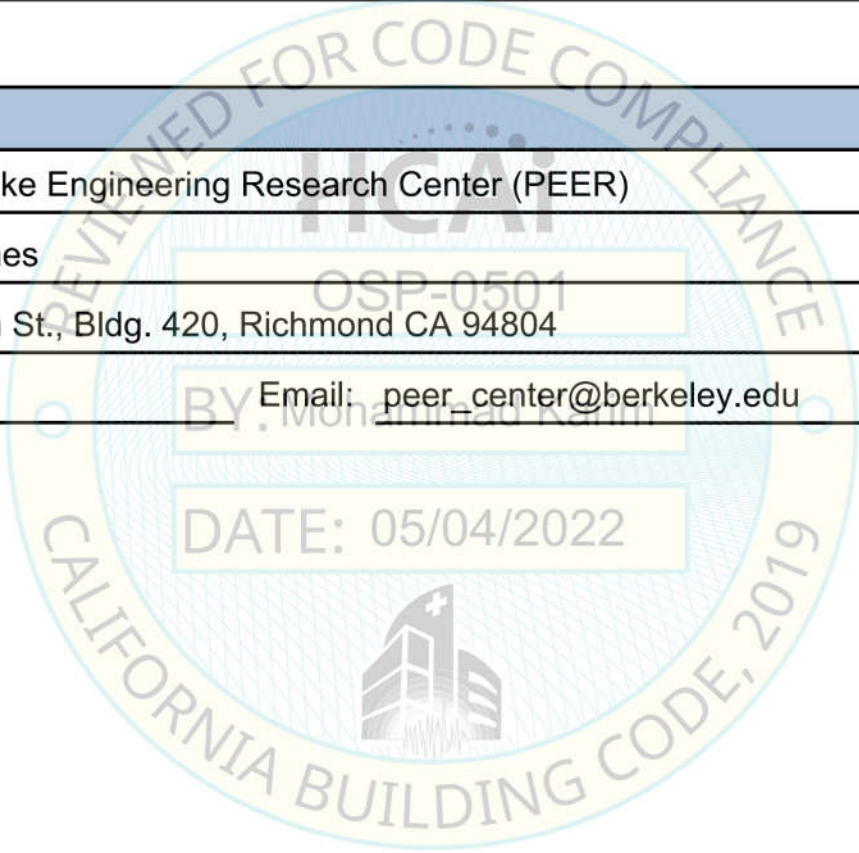
Testing Laboratory

Company Name: Pacific Earthquake Engineering Research Center (PEER)

Contact Person: Clement B Barthes

Mailing Address: 1301 South 46th St., Bldg. 420, Richmond CA 94804

Telephone: (510) 642-3437 Email: peer\_center@berkeley.edu







DEPARTMENT OF HEALTH CARE ACCESS AND INFORMATION  
FACILITIES DEVELOPMENT DIVISION

Seismic Parameters

Design Basis of Equipment or Components ( $F_p/W_p$ ) = 1.44 (SDS = 2.0g); 1.35 (SDS = 3.0g)

SDS (Design spectral response acceleration at short period, g) = 2.0 (z/h = 1.0); 3.0 (z/h = 0.0)

$a_p$  (Amplification factor) = 1.0

$R_p$  (Response modification factor) = 2.5

$\Omega_0$  (System overstrength factor) = 2.0

$I_p$  (Importance factor) = 1.5

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

Natural frequencies (Hz) = See Attachment

Overall dimensions and weight = See Attachment

HCAI Approval (For Office Use Only) - Approval Expires on 05/04/2028

Date: 5/4/2022

Name: Mohammad Karim

Special Seismic Certification Valid Up to: SDS (g) = See Above

Condition of Approval (if applicable):

OSP-0501

BY: Mohammad Karim

DATE: 05/04/2022

Title: Supervisor, Health Facilities

z/h = See Above

