



# Power Wave 1

Single Phase, 3 to 17 kW

**\*OSHPD**  
**CERTIFIED**



## \*SHAKER TABLE TESTED AND HCAI CERTIFIED (FORMERLY OSHPD)

Need a seismic upgrade? Our \*HCAI Certified (formerly OSHPD) cabinets will protect your inverter from seismic activity when mother nature calls. With full capabilities of the Power Wave 1 series, this emergency lighting inverter will keep your emergency lighting on when things get shaky.



### Scan QR Code

For the latest product news, technical specs, drawings, guides and manuals.

## STANDARD FEATURES

- ✓ 90 Minute Backup Design at Full Load
- ✓ Listed to UL924 and UL1778 Standards
- ✓ Compatible with Self-Ballast Fluorescent, Incandescent, Halogen, Quartz Re-strike, HID, HPS and LED
- ✓ True Online, Double Conversion, Technology with **Zero Transfer Time**
- ✓ Pure Sine Wave
- ✓ High Frequency Pulse Width Modulation (PWM) for Conditioned Power to the Load
- ✓ TVSS Input Transient Voltage Surge Suppressor (Class C)
- ✓ Shaker Table Tested & Seismic Certified Enclosure
- ✓ HCAI Certified (Formerly OSHPD)
- ✓ Input Power Factor Correction and Full Voltage Regulation
- ✓ Multiple Output Voltages
- ✓ Microprocessor Controlled LCD with Visual Status and Event Indicators
- ✓ Self-Testing and Battery Exerciser with LCD Display
- ✓ DC Breakers for Ease of Maintenance

## OPTIONAL FEATURES

- Global Monitoring (GMS):
  - GMS 1: Local event Logger with Memory (PC Connections via RS232 and RS485) 500 Events
  - GMS 2: Remote Monitoring with Local Network Connection (WiFi, Ethernet or Modem)
  - GMS 3: Remote Monitoring with Cellular Network Connection
- Remote Status Panel
- Battery Monitoring (String or Per Battery)
- Dry Contacts Normally Open
- Form C Dry Contact with N/O or N/C Field Selectable for Desired Signal
- Main Input & Output Circuit Breaker (UL489)
- Normally ON and/or Normally OFF Auxiliary Breakers (24 MAX)
- Custom Rated KAIC Breakers
- 65 KAIC Total System Short Circuit Current Rating
- Internal or External Maintenance Bypass Switch
- Seismic Bracket
- High Temperature Batteries
- Long Life Battery 20 Year Warranty
- Time Delayed Transfer to Battery
- Time Delayed Transfer from Battery
- Maintenance:
  - Extended Warranty
  - Preventative Maintenance Plans



# SPECIFICATIONS

## Power Wave 1

Single Phase, †HCAI Certified  
3 to 17 kW

\*All units are 90 minutes battery backup time @ full load.  
Consult factory for backup times (up to 120 minutes).

† HCAI Certified (formerly OSHPD)

### SAFETY STANDARDS

UL924, UL1778, NFPA101, NFPA70, NEMA, and ANSI  
Listed to UL924 and UL1778 by Standards

### INPUT

**AC Voltage:** -15% / +10%  
**Frequency:** Slew rate of 0.4Hz/sec

### OUTPUT

**AC Voltage Regulation:** ±3%  
2 wires plus-ground for single voltage outputs,  
3 wires plus-ground for dual voltage outputs  
**Frequency:** 60Hz ±0.5Hz  
**Wave Form:** Sinusoidal  
**Harmonic Distortion:** < 5% THD; < 3% Single Harmonic

### PROTECTION

**Overload:** 115% for 5 - 10 min, 125% for 30 sec

### BATTERY

**Battery:** Sealed, maintenance free VRLA lead acid battery  
**Recharge Time:** Conforms to UL standards

### NOISE ISOLATION

Common Mode: -120 dB  
Transverse Mode: -60 dB

### ENVIRONMENT

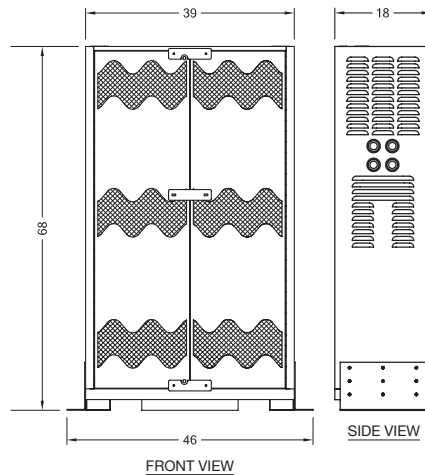
**Operating Temp:** 0° to 40°C (32° to 104°F)  
**Battery:** 20° to 25°C (68° - 77°F)  
**Electronic Storage Temp:** -20° to +45°C (-4° to 113°F)  
**Humidity:** 0 to 95% RH (non-condensation)  
**Altitude:** Up to 6,000 ft

## Cabinet Dimensions

(Inches) Width x Height x Depth

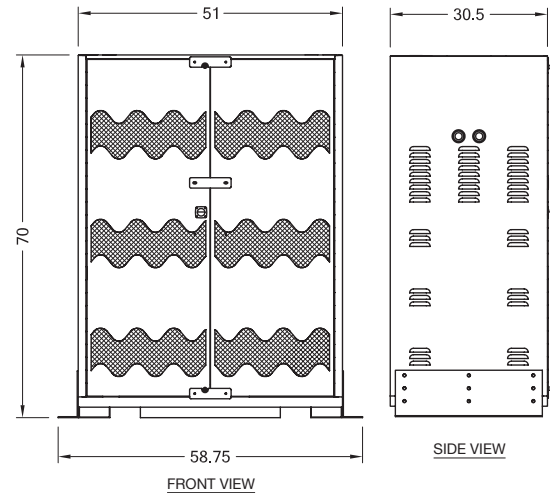
### Cabinet I

3kW to 8kW



### Cabinet II

10 to 17kW



#### Cabinet I

46"W x 68"H x 18"D

#### Cabinet II

58.75"W x 70"H x 30.5"D

## Model Numbers

Model number will be reflected on name plate, not designed for ordering or specifications.

Unit Name	Capacity (kW)	Input (Volts)	Output (Volts)
SV-PW Shock & Vibration Power Wave 1	3.0	3 kW	A 120V
	5.0	5 kW	B 208V
	6.0	6 kW	D 240V
	8.0	8 kW	R 277V
	010	10 kW	H 480V
	012	12.5 kW	*5800T1
	015	15 kW	
017	17 kW		

\*5800T1 part number is reserved for dual voltage and multi voltage outputs.  
We recommend 120V/240V for any 120V output needs. Provides the ability to feed two hots to a panel.

## BTU / Weight

Capacity (kW)	BTU/HR**	*Weight (LBs)
3.0	1066	1020
5.0	1284	1524
6.0	1284	1596
8.0	1464	1833
10	2870	2913
12.5	3777	3657
15	4512	5300
17	4512	5800

\*Models with transformers will increase weight by 70lbs.  
\*\*BTU ratings are based on worst case scenario, not steady state.

## Warranty

Standard warranty is eighteen (18) months from ship date or twelve (12) months from start up, whichever occurs first. Optional second year warranty with factory performed preventative maintenance available.



# ORDERING GUIDE

ORDER NUMBER **DOES NOT** REFLECT MODEL NUMBER. PLEASE CONSULT FACTORY.

PROJECT NAME :

REP / DISTRIBUTOR :

ELECTRICAL DESIGNER / ENGINEER :

DATE :

## Power Wave 1\*OSHPD

Example: SV-PW-3.0-A02-S90-N08A40-FT-FC-GMS3-PM2

SV-PW-

SV-PW

### MODEL SERIES

**SV-PW:**  
Power Wave 1  
\*OSHPD  
\*HCAI Certified  
(formerly OSHPD)

3.0

### KW RATING

**3.0:** 3kW  
**5.0:** 5kW  
**6.0:** 6kW  
**8.0:** 8kW  
**10.0:** 10kW  
**10.12:** 12.5kW  
**10.15:** 15kW  
**10.17:** 17kW

A02

### VOLTAGE INPUT/OUTPUT

<b>INPUT</b>	<b>OUTPUT</b>
* <b>A</b> - 120V	<b>01</b> - 120V
<b>B</b> - 208V	<b>02</b> - 208V
<b>D</b> - 240V	<b>03</b> - 240V
<b>R</b> - 277V	<b>04</b> - 277V
<b>H</b> - 480V	<b>05</b> - 120V / 240V
	<b>06</b> - 277V / 480V
	<b>07</b> - 120V / 277V
	** <b>08</b> - 120V / 208V / 277V

\* 120V input only available up to 8 kW output.  
\*\* Consult factory for 3 voltage output systems.

S90

### BATTERY TYPE

**S90:** Standard @ 90min  
\* **L90:** Long Life @ 90min  
**H90:** Hi Temp @ 90min  
**U90:** USA @ 90min  
**S120:** Standard @ 120min  
\* **L120:** Long Life @ 120min  
**H120:** Hi Temp @ 120min  
**U120:** USA @ 120min

\* Long Life 20 Yr. Pro Rata Battery.

N08A40

### AUX BREAKERS (UL1077)

#### AUX BREAKERS EXAMPLE

N 08 A 40

#### OUTPUT

**N:** Normally ON  
**F:** Normally OFF  
\*\***FD:** Normally OFF  
w/ Time Delay

#### BREAKERS

\***01 - 24** (Max 24)

**AMP RATING\*\*\***  
**10, 15, 20, 25,**  
**30, 40, 50, 60**  
STANDARD: 20 AMP

#### VOLTAGE

**A** - 120V, 1P  
**B** - 208V, 2P  
**C** - 240V, 2P  
**D** - 277V, 1P  
**E** - 480V, 2P

\* Only up to 24 poles.  
\*\* Allows you to have individual circuits remain on battery even when utility is restored for a period of time. Must be normally a OFF circuit.  
\*\*\*Consult factory for custom amp rating.

FT + FC + GMS3

### OPTIONS

#### PICK ANY:

**MB:** Internal Maintenance Bypass  
**EB:** Ex. Maintenance Wraparound Bypass Switch  
**SCCR:** 65 KAIC Total System Short Circuit Current Rating  
**IB:** Input Breaker (UL 489)  
**DS:** Drip Shield Hood  
**OB:** Output Breaker (UL 489)  
**CL:** Corbin Lock

#### BATTERY OPTIONS

**FC:** Fast Charge (12 hrs or less)  
**TR:** Thermal Runaway Gassing Control without Battery Disconnect (IFC 1206.2)

#### MONITORING OPTIONS

**C:** Normally Open Dry Contacts  
**DCT2:** Dual, Open and Closed Dry Contacts  
**A:** Local Audible Alarm with Silencer Switch  
**CP:** RS 232 Connecting Port and RS 485 Connecting Port  
**P:** Remote Status Panel (Hard Wired with Extended Cable)

#### SYSTEM TRANSFER

**FT:** Fast Transfer with 2 Milliseconds  
**TD(B):** User Selectable Time Delay to Battery for Capacitor Discharge During EM (Standard 45 Milliseconds)  
**TD(U):** Time Delay Back to Utility During Power Restoration for Facility Inrush Reduction

#### BATTERY MONITORING SYSTEM (BMS)

##### PICK ONE:

**SM:** String Monitoring  
**BM:** Battery Monitoring  
**BM-TS:** Temperature Sensor

#### GLOBAL MONITORING SYSTEM (GMS)

##### PICK ONE:

**GMS 1:** Local Accessible Event Logger with Unit Audible Alarm  
**GMS 2:** Testing Logs with Remote Accessibility Through Local Network  
**GMS 3:** Testing Logs with Remote Accessibility through Local Network and GPRS for Cellular Text Alerts

PM2

### WARRANTY & SERVICES

#### PICK ANY:

**Blank:** Standard Onsite Startup and Warranty

#### ADDITIONAL:

**EXT:** Additional One Year Extended Warranty (Includes First Year Preventative Maintenance)

**PM (2-3):** Onsite Preventative Maintenance (Once Per Year, up to 3 Years)

**T1:** 4 Hour Training at Time of Start Up

**T2:** Additional Training day up to 8 hours





# Power Wave 3

Three Phase, 8 to 50 kW

**\*OSHPD**  
**CERTIFIED**



## \*SHAKER TABLE TESTED AND HCAI CERTIFIED (FORMERLY OSHPD)

Need a seismic upgrade? Our \*HCAI Certified (formerly OSHPD) Cabinets will protect your inverter from seismic activity when mother nature calls. With full capabilities of the Power Wave 3, this emergency lighting inverter will keep your emergency lighting on when things get shaky.



### Scan QR Code

For the latest product news, technical specs, drawings, guides and manuals.

## STANDARD FEATURES

- ✓ 90 Minute Backup Design at Full Load
- ✓ Listed to UL924 and UL1778 Standards
- ✓ Compatible with Self-Ballast Fluorescent, Incandescent, Halogen, Quartz Re-strike, HID, HPS and LED
- ✓ True Online Double Conversion Technology with **Zero Transfer Time**
- ✓ Pure Sinusoidal Waveform
- ✓ High Frequency Pulse Width Modulation (PWM) for Conditioned Power to the Load
- ✓ Internal Maintenance Bypass
- ✓ Shaker Table Tested & Seismic Certified Enclosure
- ✓ HCAI Certified (Formerly OSHPD)
- ✓ TVSS Input Transient Voltage Surge Suppressor (Class C)
- ✓ Main Input & Output Breakers (UL 489)
- ✓ Microprocessor Controlled LCD with visual status and Event indicators
- ✓ Self-Testing and Battery Exerciser with LCD Display
- ✓ DC Breakers for Ease of Maintenance

## OPTIONAL FEATURES

- Global Monitoring (GMS):
  - GMS 1: Local event Logger with Memory (PC Connections via RS232 and RS485) 500 Events
  - GMS 2: Remote Monitoring with Local Network Connection (WiFi, Ethernet or Modem)
  - GMS 3: Remote Monitoring with Cellular Network Connection
- Remote Status Panel
- Battery Monitoring (String or Per Battery)
- Dry Contacts Normally Open
- Form C Dry Contact with N/O or N/C Field Selectable for Desired Signal
- Normally ON or Normally OFF Auxiliary Output Circuit Breakers (22 Max)
- Custom Rated KAIC Breakers
- 65 KAIC Total System Short Circuit Current Rating
- External Maintenance Bypass Switch
- Seismic Brackets
- Long Life Battery 20 Year Warranty
- Time Delayed Transfer to Battery
- Time Delayed Transfer from Battery
- Maintenance:
  - Extended Warranty
  - Preventative Maintenance Plans



# SPECIFICATIONS

## Power Wave 3

Three Phase, †HCAI Certified  
8 to 50kW

\*All units are 90 minutes battery backup time @ full load.  
Consult factory for backup times (up to 120 minutes).

† HCAI Certified (formerly OSHPD)

### SAFETY STANDARDS

UL924, UL1778, NFPA101, NFPA70, NEMA, and ANSI  
Listed to UL924 and UL1778 by Standards

### INPUT

**AC Voltage:** 208Y/120 or 480Y/277 VAC  
(-20% to +15%)  
**Frequency:** 60 Hz ± 5% or 50 Hz ± 5%

### OUTPUT

**AC Voltage Regulation:** +5% Regulated within  
CBEMA curve  
**Wave Form:** Sine Wave  
**Harmonic Distortion:** < 3% of THD  
**Efficiency:** Greater than 90%

### PROTECTION

**Overload:** 125% for 10 min, 150% surge for 10 sec

### BATTERY

**Battery:** Sealed, Maintenance-Free VRLA Batteries  
(Standard) 10 Years  
**Recharge Time:** Conforms to UL standards

### ENVIRONMENT (Electronics)

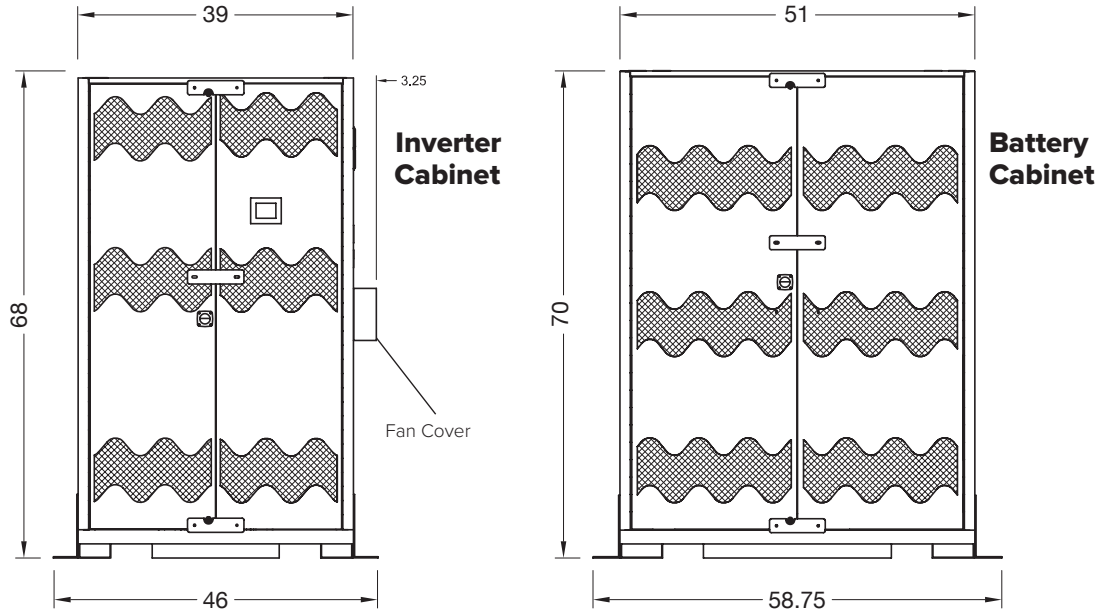
**Operating:** 0° to 40°C (32° to 104°F)  
**Storage:** -20° to +60°C. (-4° to 140°F)  
**Humidity:** 0% to 95% (non-condensation)  
**Altitude:** Up to 10,000 ft (3,048 meters)  
**Audible Noise:** 57 dBA

## Cabinet Dimensions

(Inches) Width x Height x Depth

<b>Inverter Cabinet</b> 46"W x 68"H x 18"D
<b>Battery Cabinet</b> 58.75"W x 70"H x 30.5"D

\*90min 8kW uses inverter cabinet for battery cabinet without fan cover.



## Model Numbers

Unit Name	Capacity (kVA/kW)	Input (Volts)	Output (Volts)
SV-PW Shock & Vibration Power Wave	<b>010</b> 10/8	<b>B</b> 208Y/120	<b>05</b> 480Y/277
	<b>015</b> 15/12	<b>H</b> 480Y/277	<b>09</b> 208Y/120
	<b>020</b> 20/16		
	<b>025</b> 25/20		
	<b>030</b> 30/24		
	<b>040</b> 40/32		
	<b>050</b> 50/40		
<b>062</b> 62/50			

## BTU / Weight

Capacity (kVA/kW)	Cabinets	90 MIN (LBS)		120 MIN (LBS)	
		INVERTER #	BATTERY #	INVERTER #	BATTERY #
<b>010</b> 10/8		1083	1392	1085	1552
<b>015</b> 15/12		1446	3224	1446	2112
<b>020</b> 20/16		1679	3560	1679	3104
<b>025</b> 25/20		1679	4545	1679	3504
<b>030</b> 30/24		1719	4568	1719	4656
<b>040</b> 40/32		2066	8664	2066	5148
<b>050</b> 50/40		2463	8800	2463	7760
<b>062</b> 62/50		2565	12700	2565	8760

KW equates to real power.

Approximately 3000 BTU's per hour for every 10 kilowatts. The approximation is worst case BTU output, measured during recharge following a discharge.

## Warranty

Standard warranty is eighteen (18) months from ship date or twelve (12) months from start up, whichever occurs first.





# ORDERING GUIDE

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## Power Wave 3 \*OSHPD

Example: SV-PW-50-B05-S90-N08A40-FT-FC-GMS3-PM2

SV-PW-

PROJECT NAME :

REP / DISTRIBUTOR :

ELECTRICAL DESIGNER / ENGINEER :

DATE :

SV-PW

### MODEL SERIES

**PW:**  
Power Wave 3  
\*OSHPD

\*HCAI Certified  
(formerly OSHPD)

50

### KW RATING

**08:** 8kW  
**12:** 12kW  
**16:** 16kW  
**20:** 20kW  
**24:** 24kW  
**32:** 32kW  
**40:** 40kW  
**50:** 50kW

B05

### VOLTAGE INPUT/OUTPUT

INPUT	OUTPUT
<b>B</b> - 208Y/120	<b>05</b> - 208Y/120
<b>H</b> - 480Y/277	<b>09</b> - 480Y/277

\*Input 'B' not compatible with Output '09'

S90

### BATTERY TYPE

**S90:** Standard @ 90min  
\***L90:** Long Life @ 90 min  
**H90:** Hi Temp @ 90 min  
**U90:** USA @ 90 min  
**S120:** Standard @ 120min  
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\*Long Life 20 Yr. Pro Rata Battery.

N08A40

### AUX BREAKERS (UL1077)

#### AUX BREAKERS EXAMPLE

N 08 A 40

#### OUTPUT

**N:** Normally ON  
**F:** Normally OFF  
**\*\*FD:** Normally OFF w/ Time Delay

#### BREAKERS

\*01 - 22 (Max 22)

**AMP RATING\*\***  
**10, 15, 20, 25, 30, 40, 50, 60**  
STANDARD: 20 AMP

#### VOLTAGE

**A** - 120V, 1P  
**B** - 208V, 2P  
**C** - 240V, 2P  
**D** - 277V, 1P  
**E** - 480V, 2P  
**F** - 208Y/120, 3P  
**G** - 480Y/277, 3P

\* Only up to 22 poles.

\*\* Allows you to have individual circuits remain on battery even when utility is restored for a period of time. Must be normally a OFF circuit.

\*\*\*Consult factory for custom amp rating.

FT + FC + GMS3

### OPTIONS

#### PICK ANY:

**X:** Seismic Mounting  
**EB:** Ex. Maintenance Wraparound Bypass Switch  
**SCCR:** 65 KAIC Total System Short Circuit Current Rating  
**DS:** Drip Shield Hood  
**CL:** Corbin Lock

**BATTERY OPTIONS**  
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**TR:** Thermal Runaway Gassing Control without Battery Disconnect (IFC 1206.2)

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PM2

### WARRANTY & SERVICES

#### PICK ANY:

**Blank:** Standard Onsite Startup and Warranty

#### ADDITIONAL:

**EXT:** Additional One Year Extended Warranty (Includes First Year Preventative Maintenance)

**PM (2-3):** Onsite Preventative Maintenance (Once Per Year, up to 3 Years)

**T1:** 4 Hour Training at Time of Start Up

**T2:** Additional Training day up to 8 hours

