



Power Wave 4

Three Phase, 8kW to 400 kW



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 4 series, this emergency lighting inverter will keep your emergency lighting on when things get shaky.

*California Department of Health Care Access and Information



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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
- ✓ Self-Ballast Fluorescent, Incandescent, Halogen, Quartz Re-strike, HID, HPS and LED compatible
- ✓ 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 Switch
- ✓ Input Breaker, Output Breaker and DC Breaker
- ✓ Shaker Table Tested & Seismic Certified Enclosure
- ✓ HCAI Certified (Formerly OSHPD)
- ✓ Field Selectable: UPS Double Conversion or Green Mode (Standby)
- ✓ Independent Phase Control
- ✓ Global Monitoring (GMS 1): Local Event Logger with Memory (PC Connections vis RS232 and RS485) 500 Events
- ✓ Microprocessor Controlled LCD with visual status and Event indicators
- ✓ Self-Testing and Battery Exerciser with LCD Display

OPTIONAL FEATURES

- Global Monitoring (GMS):
 - GMS 2: Remote Monitoring with Local Network Connection (WiFi, Ethernet or Modem)
- Remote Status Panel
- Battery Monitoring (String or Per Battery)
- TVSS Input Transient Voltage Surge Suppressor (Class C)
- Dry Contacts Normally Open
- Dry Contacts Normally Closed
- Normally ON or Normally OFF Auxiliary Output Circuit Breakers (20 Max)
- Custom Rated KAIC Breakers
- 65 KAIC Total System Short Circuit Current Rating
- Thermal Runaway Control (IFC 1206.2)
- External Maintenance Bypass Switch
- Long Life Battery 20 Year Warranty
- Maintenance:
 - Extended Warranty
 - Preventative Maintenance Plans



SPECIFICATIONS

Power Wave 4

Three Phase, †HCAI Certified
10-500 kVA (8 to 400 kW)

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

† HCAI Certified (formerly OSHPPD)

SAFETY STANDARDS

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

INPUT

AC Voltage: ±15%
Frequency: 50/60Hz ±7

OUTPUT

AC Voltage Regulation: ±1%
Wave Form: Sinusoidal
Harmonic Distortion: Less than 2% THD
Frequency Tolerance: ±0.1 Hz

PROTECTION

Overload: Less than 110% Load: Continuous,
125-150%: 5 min, Higher than 150%: 30 sec

BATTERY

Battery: Sealed, Maintenance-Free VRLA Batteries
Recharge Time: Varies per kVA, conforms to UL924

NOISE ISOLATION

Isolation: True Galvanic Isolated

ENVIRONMENT (Electronics)

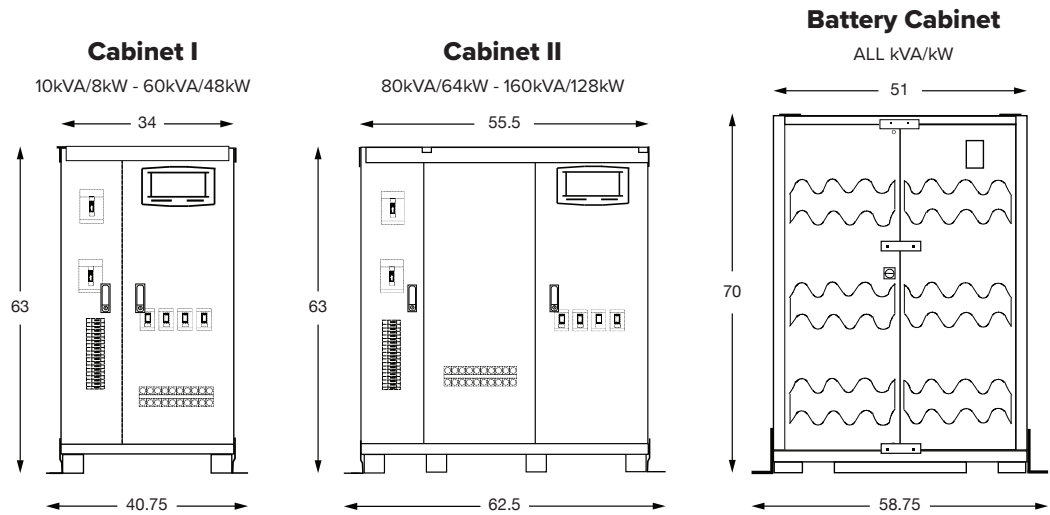
Operating Temperature: 0° to 40°C (0° - 104°F)
Storage Temperature: -20° to 70°C (-4° - 158°F)
Humidity: 0% to 90% (non-condensation)
Altitude: Up to 5,000 ft
Audible Noise: Less than 65dBA at 1 meter/39.4 in.

Cabinet Dimensions

(Inches) Width x Height x Depth

Cabinet I 34"W x 63"H x 31.5"D
Cabinet II 55.5"W x 63"H x 31.5"D
Battery Cabinet 51"W x 70"H x 30.5"D

Each model comes with both inverter and battery cabinets. Larger capacity will require additional battery cabinets. Size and weight will vary depending on capacity.



Model Numbers

MODEL	KVA/KW	INPUT	OUTPUT
SV-PW	010 10/8	B 208Y/120	05ATT3 208Y/120
Shaker Table Tested	020 20/16	H 480Y/277	09ATT3 480Y/277
Power Wave 4	030 30/24		
	040 40/32		
	050 50/40		
	060 60/48		
	080 80/64		
	100 100/80		
	120 120/96		
	160 160/128		
	200 200/160		
	240 240/192		
	300 300/240		
	400 400/320		
	500 500/400		

Model Number Example:

SV-PW010B05ATT3
SV: Shaker Table Tested
PW: Power Wave 4
010: 8kW
B: Input: 208Y/120
05ATT3: Output: 208Y/120

kW equates to real power. These units come in one capacity at 0.8 power factor.
Example: 10kVA/8kW

Weights

INVERTER CABINET	STANDARD BATTERY (10YR)								LONG LIFE BATTERY (20YR)				POWER MODE	
	90MIN		120MIN		90MIN		120MIN		90MIN		120MIN		UPS	GREEN
	KVA/KW	QTY	LBS	QTY	LBS	QTY	LBS	QTY	LBS	QTY	LBS			
10/8	1	840	1	2430	1	2430	1	2975	1	2975			3374	1742
20/16	1	1083	1	3213	1	3416	1	3990	1	3990			8767	2873
30/24	1	1260	1	4361	1	4535	1	4135	1	5034			10120	4310
40/32	1	1414	2	3213	2	3416	1	5034	2	3990			12131	5747
50/40	1	1525	2	3427	2	3867	2	3990	2	4135			15164	5687
60/48	1	1724	2	3867	2	4923	2	4135	2	5034			18197	6824
*80/64	1	2276	2	4615	1	3707	2	5034	3	5034			24263	9099
					2	4729								
*100/80	1	2984	2	3707	2	3416	3	5034	3	5034			30329	11373
					2	4729								
*120/96	1	3138	2	3416	4	4923	3	5034	4	5034			32395	10130
160/128	1	3868	*	*	*	*	4	5060	5	5060			43193	13507
200/160	1	5746	*	*	*	*	5	5060	6	5060			53992	16884
240/192	1	6229	*	*	*	*	6	5060	*	*			64790	20206
300/240	1	7293	*	*	*	*	*	*	*	*			80988	25326
400/320	1	9061	*	*	*	*	*	*	*	*			94942	33768
500/400	1	10166	*	*	*	*	*	*	*	*			118678	42210

*64kW - Standard Battery (10Yr) 120min: 3 cabinets
*96kW - Standard Battery (10Yr) 90min: 4 cabinets

*80kW - Standard Battery (10Yr) 90min: 3 cabinets, 120min: 4 cabinets
*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. Optional second year warranty with factory performed preventative maintenance available.



ORDERING GUIDE

PROJECT NAME :

REP / DISTRIBUTOR :

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

Power Wave 4 *OSHPD

Example: SV-PW-048-B05-S90-N08A40-FT-FC-GMS2-PM2

ELECTRICAL DESIGNER / ENGINEER :

DATE :

SV-PW-

SV-PW

MODEL SERIES

SV-PW:
Power Wave 4
*OSHPD

*HCAI Certified
(formerly OSHPD)

048

CAPACITY KW/KVA

08: 8/10
16: 16/20
24: 24/30
32: 32/40
40: 40/50
48: 48/60
64: 64/80
80: 80/100
96: 96/120
128: 128/160
160: 160/200
192: 192/240
240: 240/300
320: 320/400
400: 400/500

B05

VOLTAGE INPUT/OUTPUT

INPUT	OUTPUT
B - 208Y/120	05 - 208Y/120
H - 480Y/277	09 - 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
(required for BAA and BABA compliance)
S120: Standard @ 120min
***L120:** Long Life @ 120 min
H120: Hi Temp @ 120 min
U120: USA @ 120 min
(required for BAA and BABA compliance)
**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 - 20** (Max 20)

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 20 poles.

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

***Consult factory for custom amp rating.

FT + FC + GMS2

OPTIONS

PICK ANY:

EB: Ex. Maintenance Wraparound Bypass Switch
LCR20A(#): Load Control Relay, Single Flex Stud Mounting (#): Qty
LCR20(#): Load Control Relay, No Flex (#): Qty
TVSS: Input Transient Voltage Surge Suppressor (Class C)
SCCR: 65 KAIC Total System Short Circuit Current Rating
DS: Drip Shield Hood
CL: Corbin Lock

BATTERY OPTIONS

FC: Fast Charge (12 hrs or less)
TR: Thermal Runaway Control (IFC 1206.2)

MONITORING OPTIONS

DO: Dry Contact Open Signal*
DC: Dry Contact Closed Signal*
*Must select either Normally Open or Normally Closed not both.

A: Local Audible Alarm with Silencer Switch
CP: RS 232 Connecting Port
P: Remote Status Panel (Hard Wired with Extended Cable)

SYSTEM TRANSFER

TD(B): User Selectable Time Delay to Battery for Capacitor Discharge During EM (Standard 45 Milliseconds)
TD(U): User Selectable Time Delay Back to Utility During Power Restoration for Facility Inrush

BATTERY MONITORING SYSTEM (BMS)

PICK ONE:

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

GLOBAL MONITORING SYSTEM (GMS)

GMS 2: Testing Logs with Remote Accessibility Through Local Network

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

