

Power Wave 1

Single Phase, 2.1 to 17kW

POWERFUL SINGLE PHASE SOLUTION

Looking for a high capacity, single enclosure, lighting inverter? The Power Wave 1 is our most compatible inverter to power almost all emergency lighting needs. A solution that is always on and always monitored. Power Wave 1 monitors not only utility power but also the internal system.





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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
- ▼ TVSS Input Transient Voltage Surge Suppressor (Class C)

- High Frequency Pulse Width Modulation (PWM) for Conditioned Power to the Load
- 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
- OC 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 (12 or 24 MAX) (DEPENDING ON CABINET SIZE)
- Custom Rated KAIC Breakers
- 65 KAIC Total System Short Circuit Current Rating

- Thermal Runaway Control
- 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 2.1 to 17kW

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

SAFETY STANDARDS

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

INPUT

AC Voltage: -15% / +10%

Frequency: Slew rate of 0.2Hz/sec

OUTPU

AC Voltage Regulation: ±5%,

2 wires plus-ground for single voltage outputs, 3 wires plus-ground for dual voltage outputs

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° - 104°F)

Battery: 20° to 25°C (68° - 77°F)

Electronic Storage Temp: -20° to 70°C. (-4° - 158°F)

Humidity: 0% to 95% (non-condensation)

Altitude: Up to 10,000 ft

Cabinet Dimensions

(Inches) Width x Height x Depth

Cabinet I

39"W x 48"H x 18"D

Cabinet II

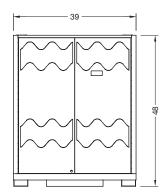
39"W x 68"H x 18"D

Cabinet III

51"W x 70"H x 30.5"D

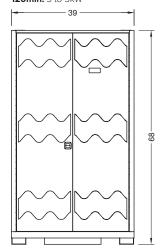
Cabinet I

90min: 2.1 to 3kW



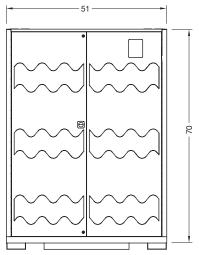
Cabinet II

90min: 3 to 8kW **120min:** 3 to 5kW



Cabinet III

90min: 10 to 17kW ***120min:** 6 to 15kW



Model Numbers

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

PW	Capacity (kW)		Input (Volts)		Output (Volts)	
	2.1	2.1kW	Α	120V	0100N1	120V
Power Wave 1	3.0	3kW	В	208V	1300N1	208V
	5.0	5kW	D	240V	0400N1	240V
	6.0	6kW	R	277V	2500N1	277V
	8.0	8kW	Н	480V	*5800T1	120V/240V
	010	10kW				120V/277V
	012	12.5kW				277V/480V
	015	15kW				120V/240V/277V
	017	17kW				

^{*5800}T1 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

	*Weight (LBs)			
Capacity (kW)	90min	120min		
2.1	826	982		
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		

Approximately 1000 BTU's per hour for every 3 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. Optional second year warranty with factory performed preventative maintenance available.









^{*120}min 17kW units require two Cabinet III's.

ORDERING GUIDE

PROJECT NAME:	
REP / DISTRIBUTOR :	

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

Power Wave 1

Example: PW-3.0-A02-S90-N08A40-FT-LCR20A(3)-GMS3-PM2

ELECTRICAL DESIGNER / ENGINEER: DATE:

PM2

WARRANTY

& SERVICES

Blank: Standard Onsite

Startup and Warranty

EXT: Additional One

(Includes First Year

PM (2-3): Onsite

Years)

of Start Up

up to 8 hours

Year Extended Warranty

Preventative Maintenance)

Preventative Maintenance

T1: 4 Hour Training at Time

T2: Additional Training day

(Once Per Year, up to 3

PICK ANY:

ADDITIONAL:

PW-

PW

MODEL SERIES

PW: Power Wave 1

5.0: 5kW **6.0**: 6kW 8.0: 8kW **010:** 10kW

012: 12.5kW **015:** 15kW

KW **RATING**

3.0

2.1: 21kW 3.0: 3kW

> **D** - 240V R - 277V H - 480V

017: 17kW

A02

VOLTAGE INPUT/OUTPUT

OUTPUT INPUT * A - 120V **01** - 120V **B** - 208V **02** - 208V 03 - 240V **04** - 277V 05 - 120V / 240V 06 - 277V / 480V **07** - 120V / 277V ** **08** - 120V / 240V / 277V

BATTERY TYPE

S90

\$90: Standard @ 90min

* **L90:** Long Life @ 90 min **H90:** Hi Temp @ 90 min

U90: USA @ 90 min (required for BAA and BABA compliance)

\$120: 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 - 12 (Max 12) CABINET I

*01 - 24 (Max 24) CABINET II & CABINET III

A - 120V. 1P **B** - 208V. 2P

C - 240V, 2P **D** - 277V, 1P

VOLTAGE

AMP RATING***

10, 15, 20, 25,

30, 40, 50, 60

STANDARD: 20 AMP

E - 480V. 2P

FT + LCR20A(3) + GMS3

PICK ANY:

X: Seismic Mounting

OPTIONS

LCR20A(#): Load Control Relay, Single Flex Stud Mounting (#): Qty

LCR20(#): Load Control Relay, No Flex (#): Qty

MB: Internal Maintenance Bypass

EB: Ex. Maintenance Wraparound Bypass Switch

SCCR: 65 KAIC Total System Short Circuit Current Rating IB: Input Breaker (UL 489)

OB: Output Breaker (UL 489)

DS: Drip Shield Hood

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

DO: Dry Contacts Open Signal

DCT2: Dual, Open and Closed Dry Contacts

A: Local Audible Alarm with Silencer Switch CP: RS 232 and RS485 Connecting Port

P: Remote Status Panel (Hard Wired with Extended

SYSTEM TRANSFER

FT: Fast Transfer with 2 Milliseconds

TD(B): User Selectable Time Delay to Battery for Capacitor Discharge During EM (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 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



^{* 120}V input only available up to 8 kW output.

^{**} Consult factory for 3 voltage output systems.

^{*} Max poles will depend on cabinet size.

^{**} 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.