EXT SERIES
Single Phase, 2.1 to 17kW

parking garages • bridges • toll booths • tunnels
sports stadiums • railroads • subways • prisons
roof tops • airports • airplane hangers • military bases
embassies • ports • reneries • homeland security
extremely hot or cold areas

EMERGENCY LIGHTING INVERTERS

PERFECT
P O W E R S Y S T E M S

HID, Incandescent, Fluorescent, LED
120, 208, 240, 277, or 480 Volts
Heavy-duty NEMA 3R enclosure in steel,
aluminum or stainless steel
Listed to UL924 Lighting & UL1778 UPS by CSA

STANDARD FEATURES

◆ **Back-lit LCD Display for monitoring**
◆ **System pre-wired for optional Global Monitoring System (GMS)**
◆ **Battery Breaker**
◆ **Inverter Test Switch**
◆ **Generator Compatible with Automatic Governor (Slew Rate 2Hz/sec.)**
◆ **Battery Management Software**
◆ **High Frequency PWM with Digital Signal Processing Technology**
◆ **Product Offered 1.0 Power Factor Unity**

Unit with optional Air Conditioner installed in a 52-inch cabinet.

EXT SERIES
ON-LINE //
STAND-BY /FAST TRANSFER

The EXT Series is specifically designed for outdoor locations and hostile environments. Proven in the field to operate efficiently in extreme temperatures, harsh weather, and to resist physical abuse and vandalism, it now offers optional Air Conditioner (Heating & Cooling) to maintain internal temperatures at 75°F ±5°F, and an optional Intrusion Switch for detecting unauthorized access. The EXT Series provides a reliable solution to meet power requirements for emergency egress lighting in a wide range of challenging applications.

KEY FEATURES:

◆ Efficiency: 94% Online / 98% Standby / Fast Transfer
◆ Continuous self-diagnostic and self-testing system
◆ Optional remote monitoring capabilities
◆ Latest technology microprocessor controlled electronics with PWM (Pulse Width Modulated) design for true Sine Wave output
◆ Heavy-duty NEMA 3R enclosure includes weatherproof gasketing, convection, and fan cooling. Optional battery heater.
◆ Rugged steel (painted) enclosure is standard. Optional stainless steel enclosure for exceptional corrosion resistance in very harsh environments

◆ Electronics maintain normal output when tested to 136°F (58°C) and -40°F (-40C°) temperatures.
◆ Designed for remote locations where input voltage can swing from +20% to -35%
◆ Tamperproof triple-locking design includes internal steel bars, keylock and padlocking door handle.

NEW OPTIONS:

◆ **Intrusion Switch:** Detects unauthorized access to protect equipment and ensure reliable operation.
◆ **Air Conditioner (Heating & Cooling):** Maintains an internal temperature of 75°F ±5°F for efficient operation in outdoor conditions.

TECHNICAL SPECIFICATIONS
EXT SERIES

EMERGENCY LIGHTING INVERTERS

INPUT SPECIFICATIONS

Nominal Input Voltage	120 or 208 or 240 or 277 or 480 VAC single phase
Input Voltage Range	+10% to -15%
Input Frequency	60 Hz ±3%
Power Factor	1.0 unity
Overcurrent Protection	Circuit breaker
Power Connection	Hard wired (terminal block)
Input Configuration	2 wire (hot, neutral) plus ground

OUTPUT SPECIFICATIONS

Output Rating	2.1 to 17 kW (Normal Mode/Emergency Mode)
Voltage	120, 208, 240, 277 VAC Single Phase
Voltage Regulation	±3% No Load to Full Load; ±3% High Line to Low Line
Frequency	60 Hz ±0.5 Hz or 0.25%
Waveshape	Sine Wave
Harmonic Distortion	<5% THD; <3% Single Harmonic
Crest Factor	3:1 typical
Power Factor	1.0 unity
Overload	115% for Ten (10) Minutes; 125% Surge
Protection	Fault Current Limited by Ferroresonant Design
Noise Rejection	-120 dB Common Mode; -60 dB Normal Mode
Outside Operating Temperature	-20° to 50°C (-4°F to 122°F)

PHYSICAL SPECIFICATIONS

Accessibility	All Servicing is through the Front.
Cable Entry	Bottom
Mounting	Four (4) Mounting Holes Provided to Anchor Enclosure to Pedestal

BATTERY SPECIFICATIONS

Battery Run Time.	90 min
Battery Type	Sealed, Maintenance-Free, Lead calcium
Nominal DC Link	48 or 120 VDC link
Overcurrent Protection	Circuit Breaker

OPTIONS

- Secondary Auxiliary Circuit Breakers (up to 16 or 24 one-pole OCB's) Normally On, Normally On, Normally Off w/ Delay, Trip Alarm
- Extended Warranty and Service Plans
- Make before break internal Maintenance Bypass switch and Electronic Maintenance Bypass switch
- TVSS for 120, 208, 240 and 277V
- Runtime up to 13 hours
- Rotatable Lifting Brackets
- Fast Transfer
- Battery Thermal Runaway with Dry Contact
- Wireless battery monitoring system: Ability to monitor individual batteries including battery impedance
- High isolation transformer with harmonic reduction (up to K-50)
- Heater strip with thermostat control
- Dry Contacts Normally Open
- Dry Contacts Normally Open and/or Closed
- (5) Form "C" Contacts alarms
- Load Control Relays

NEW OPTIONS

- ◆ Intrusion Switch (Requires: Dual, Open and Closed Dry Contacts)
- ◆ Air Conditioner (Heating & Cooling): Helps maintain internal temperatures 75°F with ±5°F tolerance.

Operating Temperature with AC Temperature Controller: Outside Operating Temperature Range: **-20° to +50°C (-4° - 122°F)** Internal Temperature with Optional AC: **75° ±5°F**

Note: Air Conditioner units require a 52-inch cabinet and 1.25kW reserved for AC during outages. Select a unit with higher capacity based on your maximum load.

Global Monitoring System (GMS)

- Provide SNMP MIB to monitor & log UPS status
- Auto-sense 10M/100M Fast Ethernet
- Manage & configure via Telnet, Web Browser or NMS
- Support TCP/IP, UDP, SNMP, TelNet, SNTP, PPP, HTTP, SMTP Protocal
- Sending both of SNMP TRAP and Email for events notifications.
- Auto email daily Battery Backup history report (configurable)
- Basic NetAgent: LAN or WIFI
- Advance NetAgent: LAN, WIFI, Dial-up Modem, or GPRS Modem

KW	MAX LOAD (KW) W/ AC TEMP. CONTROLLER OPTION	INPUT - OUTPUT VOLTAGES	MODEL NUMBERS	DC VOLTS	CABINET SIZE (INCHES)	† WEIGHT (LBS)	CABINET SIZE W/ AC TEMP CONTROLLER OPTION
2.1	0.85	120/120 208/208 240/240 277/277 480/277 **X** / 208, 277, 120/240 **Y** / 277 & 480	EX2.1A0100N1 EX2.1B1300N1 EX2.1D0400N1 EX2.1R2500N1 EX2.1H2500N1 **EX2.1X**5800T1 EX2.1**Y**5899T1	96	W: 40" H: 76" D: 20" This cabinet size is not available with AC Temperature Controller option.	896	W: 65.25" H: 80" D: 33.5" • All unit capacities (2.1 to 17kW) with the AC Temperature Controller option share the same cabinet size. • Additional 1.25kW load is required for AC operation during power outage. • For units equipped with the AC option, approximately 150 lbs should be added to the cabinet's weight.
3.0	1.75	120/120 208/208 240/240 277/277 480/277 **X** / 208, 277, 120/240 **Y** / 277 & 480	EX3.0A0100N1 EX3.0B1300N1 EX3.0D0400N1 EX3.0R2500N1 EX3.0H2500N1 **EX3.0X**5800T1 EX3.0**Y**5899T1	96		1066	
5.0	3.75	120/120 208/208 240/240 277/277 480/277 **X** / 208, 277, 120/240 **Y** / 277 & 480	EX5.0A0100N1 EX5.0B1300N1 EX5.0D0400N1 EX5.0R2500N1 EX5.0H2500N1 **EX5.0X**5800T1 EX5.0**Y**5899T1	120		1284	
6.0	4.75	208/208 240/240 277/277 480/277 **X** / 208, 277, 120/240 **Y** / 277 & 480	EX6.0B1300N1 EX6.0D0400N1 EX6.0R2500N1 EX6.0H2500N1 **EX6.0X**5800T1 EX6.0**Y**5899N1	144		1284	
8.0	6.75	208/208 240/240 277/277 480/277 **X** / 208, 277, 120/240 **Y** / 277 & 480	EX8.0B1300N1 EX8.0D0400N1 EX8.0R2500N1 EX8.0H2500N1 **EX8.0X**5800T1 EX8.0**Y**5899N1	192		1464	
10	8.75	208/208 240/240 277/277 480/277 **X** / 208, 277, 120/240 **Y** / 277 & 480	EX010B1300N1 EX010D0400N1 EX010R2500N1 EX010H2500N1 **EX010X**5800T1 EX010**Y**5899N1	192	W: 52" H: 80" D: 33.5"	2870	
12.5	10.75	208/208 240/240 277/277 480/277 **X** / 208, 277, 120/240 **Y** / 277 & 480	EX012B1300N1 EX012D0400N1 EX012R2500N1 EX012H2500N1 **EX012X**5800T1 EX012**Y**5899N1	192		3777	
15.0	13.75	208/208 240/240 277/277 480/277 **X** / 208, 277, 120/240 **Y** / 277 & 480	EX015B1300N1 EX015D0400N1 EX015R2500N1 EX015H2500N1 **EX015X**5800T1 EX015**Y**5899N1	240		4512	
17.0	15.75	208/208 240/240 277/277 480/277 **X** / 208, 277, 120/240 **Y** / 277 & 480	EX017B1300N1 EX017D0400N1 EX017R2500N1 EX017H2500N1 **EX017X**5800T1 EX017**Y**5899N1	240		4512	

* Input Voltage "**X**": **A**= 120, **B**= 208, **D**= 240, **R**= 277, **H**= 480 VAC
* Input Voltage "**Y**": **R**= 277 or **H**= 480 VAC
* Output Voltage "5800" = 120/240, or 280, or 277 VAC
* Output Voltage "5899" = 277 & 480 VAC
** 5800T1 part number is required for all AC units.

All units are 90 minutes battery back-up time at full load.
† Cabinet size, weight and quantity may vary depending on Battery Type. Consult factory for other power ratings and back-up times.

Consult factory for more features and choices of remote communication. Specifications are subject to change without prior notification.

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PERFECT POWERSYSTEMS

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