



Image shows optional AC Temperature Controller installed on 52" heavy-duty NEMA 3R cabinet.

Harsh Environment UPS

2.1 to 17kW

Rugged Outdoor Central Lighting Inverter

- **Single Phase Operation:** Reliable performance for a wide range of applications.
- **Transfer Options:** Online or fast transfer (under 2ms) for seamless power continuity.
- **Lamp Compatibility:** Supports LED, incandescent, fluorescent, and HID lighting.
- **Versatile Voltage Range:** Available in 120, 208, 240, 277, and 480 volts.
- **Certified Standards:** Listed to UL924 Lighting and UL1778 UPS Standards by CSA.

KEY FEATURES

- **Electronics maintain normal output when tested to 136°F (58°C) and minus -29°F (-34°C) temperatures.**
- **Designed for remote locations where input voltage can swing from +20% to -35%.**
- **Automatic monthly and annual self-testing.**
- **Latest technology microprocessor controlled electronics with PWM (Pulse Width Modulated) design for true Sign Wave output.**
- **Double Conversion, "no break" online system powers all lamp types, including LED.**
- **Continuous self-diagnostic and self-testing system. Automatically tests every 30 days and 12 months.**
- **Optional remote monitoring capabilities.**
- **Heavy-duty NEMA 3R enclosure includes weatherproof gasket, convection cooling.**
- **Optional battery heater.**
- **Rugged steel (painted) enclosure is standard.**
- **Optional aluminum or stainless steel for exceptional corrosion resistance in very harsh environments.**
- **Tamper-proof triple-locking design includes internal steel bars, key-lock, and padlocking door handle.**



Built like a tank, the HEU is designed for challenging outdoor environments, operating reliably in extreme temperatures and harsh conditions while resisting vandalism. It's the only outdoor central lighting inverter listed to UL924 and UL1778 UPS standards. Featuring a durable, weatherproof enclosure and tamper-proof design, the HEU offers optional Air Conditioner (Heating & Cooling) to maintain internal temperatures at 75°F ±5°F, and an optional Trip Alarm for added security. It ensures dependable emergency lighting power for the toughest applications.

NEW OPTIONS

- **Air Conditioner (Heating & Cooling)**
Helps maintain internal temperature 75°F ±5°F.
- **Intrusion Switch**
Detects unauthorized access to cabinet.

Harsh Environment Unit Specifications

INPUT SPECIFICATIONS

Nominal Input Voltage	120, 208, 240, 277, or 480 VAC single phase
Input Voltage Range	+10% to -15%
Input Frequency	60Hz ±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, 3, 5, 6, 8, 10, 12.5, 15, and 17kW (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 ±0.25 Hz
Wave-shape	Sine Wave
Harmonic Distortion	<5% THD; <3% Single Harmonic
Crest Factor	Up to 3 to 1
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 Temp.	-20° to 50°C (-4°F to 122°F)
Internal Temp.	75°F with ±5°F tolerance

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

KW	MAX LOAD (KW) W/ AC OPTION	INPUT - OUTPUT VOLTAGES	MODEL NUMBERS	DC VOLTS	CABINET SIZE (INCHES)	WEIGHT (LBS)	CABINET SIZE W/ AC OPTION ADDED
2.1	0.85	120/120 208/208 240/240 277/277 480/277 X / 208, 277, 120/240 Y / 277 & 480	HU2.1A0100N1 HU2.1B1300N1 HU2.1D0400N1 HU2.1R2500N1 HU2.1H2500N1 ** HU2.1X5800T1 HU2.1Y5899T1	96	W: 40" H: 76" D: 20"	896	W: 65.25" H: 80" D: 33.5"
3.0	1.75	120/120 208/208 240/240 277/277 480/277 X / 208, 277, 120/240 Y / 277 & 480	HU3.0A0100N1 HU3.0B1300N1 HU3.0D0400N1 HU3.0R2500N1 HU3.0H2500N1 ** HU3.0X5800T1 HU3.0Y5899T1	96	This cabinet size is not available with AC Temperature Controller option.	1066	• All unit capacities (2.1 to 17kW) with the AC Temperature Controller option share the same cabinet size.
5.0	3.75	120/120 208/208 240/240 277/277 480/277 X / 208, 277, 120/240 Y / 277 & 480	HU5.0A0100N1 HU5.0B1300N1 HU5.0D0400N1 HU5.0R2500N1 HU5.0H2500N1 ** HU5.0X5800T1 HU5.0Y5899T1	120		1284	
6.0	4.75	208/208 240/240 277/277 480/277 X / 208, 277, 120/240 Y / 277 & 480	HU6.0B1300N1 HU6.0D0400N1 HU6.0R2500N1 HU6.0H2500N1 ** HU6.0X5800T1 HU6.0Y5899T1	144		1284	• For units equipped with the AC option, additional 1.25kW load is required for Air Conditioner operation during power outage.
8.0	6.75	208/208 240/240 277/277 480/277 X / 208, 277, 120/240 Y / 277 & 480	HU8.0B1300N1 HU8.0D0400N1 HU8.0R2500N1 HU8.0H2500N1 ** HU8.0X5800T1 HU8.0Y5899T1	192		1464	
10	8.75	208/208 240/240 277/277 480/277 X / 208, 277, 120/240 Y / 277 & 480	HU10B1300N1 HU10D0400N1 HU10R2500N1 HU10H2500N1 ** HU10X5800T1 HU10Y5899T1	192	W: 52" H: 80" D: 33.5"	2870	• For units with AC option add additional 150lbs to the cabinet weight.
12.5	10.75	208/208 240/240 277/277 480/277 X / 208, 277, 120/240 Y / 277 & 480	HU12B1300N1 HU12D0400N1 HU12R2500N1 HU12H2500N1 ** HU12X5800T1 HU12Y5899T1	192		3777	
15.0	13.75	208/208 240/240 277/277 480/277 X / 208, 277, 120/240 Y / 277 & 480	HU15B1300N1 HU15D0400N1 HU15R2500N1 HU15H2500N1 ** HU15X5800T1 HU15Y5899T1	240		4512	
17.0	15.75	208/208 240/240 277/277 480/277 X / 208, 277, 120/240 Y / 277 & 480	HU17B1300N1 HU17D0400N1 HU17R2500N1 HU17H2500N1 ** HU17X5800T1 HU17Y5899T1	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.



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 Contact Normally Open
- Dry Contact "Form C" Normally Open and/or Normally Closed
- (5) Form "C" Contacts alarms
- Load Control Relays



Made in USA
(BAA & BABA Compliance)
Capable of meeting BAA & BABA requirements upon request!

NEW OPTIONS

- **Intrusion Switch** (Requires Dual, Open and Closed Dry Contacts)
- **Air Conditioner** (Heating & Cooling)
Operating Temperatures with AC Temperature Controller:
Outside Operating Temperature Range: -20° to +50°C (-4° - 122°F)
Internal Temperature with Optional AC: 75° ±5°F

CAUTION: The unit capacity must be sized up to accommodate additional 1.25kW to power the AC Temperature Controller during power outage.

Optional 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 Protocol
- 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



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

CRUCIAL POWER PRODUCTS

Los Angeles, CA • Tel: (800) 244-4069
www.crucialpower.com
email: info@crucialpower.com