

Central Lighting Inverter for Outdoor/Hostile Environments

Built like a tank, the HEU is specifically designed for outdoor locations and hostile environments. This unit has been proven for several years in the field to operate efficiently in extreme temperatures, harsh weather conditions, and withstand physical abuse and vandalism. Unique in the market, the HEU is the only outdoor central lighting inverter listed to UL924 and UL1778 UPS standards. The HEU is the solution to fulfill power requirements for emergency egress lighting in a wide variety of very challenging applications.

Key Features of the HEU

- Electronics maintain normal output when tested to 136°F (58°C) and minus -40°F (-40°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 Sine 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 gasketing, convection and fan cooling. Optional battery heater
- Rugged steel (painted) enclosure is standard. Optional aluminum or stainless steel for exceptional corrosion resistance in very harsh environments
- Tamperproof triple-locking design includes internal steel bars, keylock, and padlocking door handle



Hostile Environmental Unit (HEU)

Central Lighting Inverter Vandal-proof for Outdoor and Harsh Locations

Applications

For outdoor and remote locations, hostile environments, high security, areas subject to vandalism, and buildings where inside space is not available.

Typical installations:

- Parking Garages
- Bridges, Toll Booths, Tunnels
- Sports Stadiums
- Railroads and Subways
- Prisons
- Roof Tops
- Airports, Airplane Hangars
- Military Bases
- Embassies
- Ports and Refineries
- Extremely hot or cold areas
- Homeland Security



Shown Stainless Steel
Heavy-duty NEMA 3R

Single Phase 2.1 kW to 17 kW Available (Ask factory for part numbers)

Online or Fast Transfer (under 2ms)

HID, Incandescent, Fluorescent, LED
120, 208, 240, 277, or 480 Volts

Heavy-duty NEMA 3R enclosure in
steel, aluminum, or stainless steel

Single Cabinet:

(2.1-5kW: 40"W x 20"D x 70"H) (5.25-17kW: 51"W x 32"D x 70"H)

Listed to UL924 Lighting
and UL1778 UPS Standards, by CSA

A Full Line Power Protection Company.

INPUT SPECIFICATIONS

Nominal Input Voltage	120, 208, 240, 277, or 480 VAC single phase
Input Voltage Range	+20% to -35%
Input Frequency	60 Hz \pm 5%
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, 7.5, 10, 12.5, 15, and 17kW (Normal Mode/Emergency Mode)
Voltage	120/240, 277, 480 VAC, Single Phase
Voltage Regulation	\pm 3% No Load to Full Load; \pm 3% High Line to Low Line
Frequency	60 Hz \pm 0.25 Hz (When on Inverter)
Waveshape	Sine Wave
Harmonic Distortion	<7% THD; <5% Single Harmonic
Crest Factor	Up to 3 to 1
Power Factor	1.0 unity
Overload	125% for Ten (10) Minutes; 150% Surge
Protection	Fault Current Limited by Ferroresonant Design
Noise Rejection	-120 dB Common Mode; -60 dB Normal Mode
Operating Temp. (Electronics Only)	Tested for -40°F.(-40°C) to 136°F.(58°C)

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	Input/Output Voltages	MODEL NUMBERS	DC Volts	Cabinet Size (W x H x D)	Wgts (lbs)
2.1	120/120 208/208 240/240 277/277	HU3.0A0100NI-VA HU3.0B1300NI-VA HU3.0D0400NI-VA HU3.0R2500NI-VA *HU3.0X5800TI-VA	96	39" x 73.5" x 20"	910
	120, 208, 240, 277, or 480				
3.0	120/120 208/208 240/240 277/277	HU3.0A0100NI HU3.0B1300NI HU3.0D0400NI HU3.0R2500NI *HU3.0X5800TI	96	39" x 73.5" x 20"	910
	120, 208, 240, 277, or 480				
5.0	120/120 208/208 240/240 277/277	HU5.0A0100NI HU5.0B1300NI HU5.0D0400NI HU5.0R2500NI *HU5.0X5800TI	120	51" x 77.5" x 33.5"	985
	120, 208, 240, 277, or 480				
7.5	208/208 240/240 277/277	HU7.5B1300NI HU7.5D0400NI HU7.5R2500NI *HU7.5X5800TI	120	51" x 77.5" x 33.5"	1070
	208, 240, 277, or 480				
10	208/208 240/240 277/277	HU010B1300NI HU010D0400NI HU010R2500NI *HU010X5800TI	192	51" x 77.5" x 33.5"	1085
	208, 240, 277, or 480				
12.5	208/208 240/240 277/277	HU012B1300NI HU012D0400NI HU012R2500NI *HU012X5800TI	192	51" x 77.5" x 33.5"	1130
	208, 240, 277, or 480				
15.0	208/208 240/240 277/277	HU015B1300NI HU015D0400NI HU015R2500NI *HU015X5800TI	240	51" x 77.5" x 33.5"	1285
	208, 240, 277, or 480				
17.0	208/208 240/240 277/277	HU017B1300NI HU017D0400NI HU017R2500NI *HU017X5800TI	240	51" x 77.5" x 33.5"	1285
	208, 240, 277, or 480				

* Input Voltage X: A=120 (2.1 to 10 kW only), B=208, D=240, R=277, H=480 VAC
Consult factory for 120V Input units and other power ratings.
All units are 90 minutes Battery Back-up time @ full Load. Consult factory for other back-up times.

Hostile Environmental Unit (HEU)

OPTIONS Available

- Secondary Auxiliary Circuit Breakers (up to 14 or 24 one-pole OCB's): Normally On, Normally Off, Normally Off w/ Delay, Trip Alarm - depending on size of system
- Extended Warranty and Service Plans
- Lifting Eyes NEMA 3R and 4X
- Monitoring via RS232 and RS485
- Make before break Maintenance Bypass Switch and Electronic Maintenance Bypass Switch
- TVSS for 120, 208, 240 and 277V
- Runtime Up to 13 Hours
- High Isolation Transformer with Harmonic Reduction (up to K-50)
- Heater Strip with Thermostat Control
- (5) Form "C" Contacts Alarms
- Stainless Steel Cabinets
- **Global Monitoring System LOCAL**
 - Local PC via RS232 and RS485
 - Event logging up to 500

REMOTE

- **Dial-up**
 - Voice (10 event logging), numeric pager
 - Voice, data, fax, pager, PC, e-mail, event logging up to 500
 - Voice, data, fax, pager, PC, e-mail, and measurement (500 event logging plus graphic)
- **Web/SNMP:** System status, measurement, alarm notification, event logging and password protected configuration.

Consult Factory for more features and choices of remote communication.