

# UL924 ELEVATOR EMERGENCY BACKUP

WAVE RIDER

# ASCENT UP TO 240KW

ELEVATOR EMERGENCY BACKUP POWER

Discover Crucial Power's innovative 24/7 monitored backup inverter system for **Elevators**. Revolutionizing emergency preparedness in response to the IBC 1009 & IFC naming Elevators as part of Emergency Evacuation/Life Safety Systems and requiring 2 Hours of emergency backup.



## ASCENT BREAKTHROUGHS:

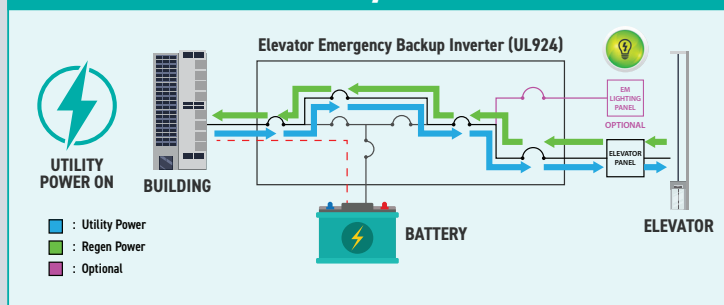
### INTRODUCING THE REGEN AGENT:

- Directs Regen Power to the Building (Normal Operation)
- Directs Regen Power to Charge the Batteries (EM Operation)
- No More Need for a Resistor Bank (A.K.A. 'The Toaster')

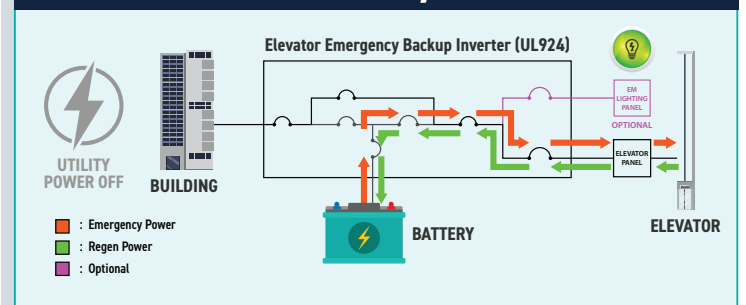
- **Compatible with:**
  - Non-Regenerative Elevators
  - Regenerative Elevators
  - Hydraulic Elevators
- **24/7 Electronics Self-Diagnostic Routines Ensure Unwavering Readiness:**
  - Email and SMS Notifications options available.
- **Combine Egress Lighting for a Single Emergency Egress Solution (optional).**

- **Provides Cost Savings Over Generators by:**
  - Integrating the Automatic Transfer Switch into the Ascent.
  - Reducing Footprint Size.
  - No More Costly On-Site Testing and Maintenance.
- **Automatic Monthly and Annual Self-Testing:** (Remote Monitoring Available)
  - Meet NFPA Standards Effortlessly with Automated Monthly and Annual Self-Testing.
  - Local Data Logging.
- **Aligns with Sustainability Objectives by:**
  - Providing Clean Energy
  - Reducing HVAC Needs
  - Removing Environmentally Damaging Fuel Tanks
- **Monitor Battery Health and Manage Responses to Environmental Conditions (optional).**

### UTILITY / REGEN



### EMERGENCY / REGEN



# Wave Rider™ Ascent SPECIFICATIONS

## Power Rating:

24, 32, 40, 50, 64, 80, 96, 128, 160, 192 and 240kW

## Input Voltage:

208Y/120V or 480Y/277 VAC  
(-15% to +15%)

## Output Voltage:

208Y/120V or 480Y/277 VAC

## Output Frequency (Inverter Operation):

60Hz ± 7Hz

## Voltage Regulation:

±1% at 100% unbalanced load

## Output Voltage Wave Form:

Sinusoidal < 2% THD.

## Crest Factor: 3:1 Typical

## Surge Protection:

The UPS will protect itself and the load against surges as defined in ANSI/IEEE C62.41 Categories A and B.

## Isolation: True galvanic isolated

**Battery:** Sealed, Maintenance-Free, VRLA Standard 10 Year

**Recharge Time:** Varies per KVA and conforms to UL924

## Environmental:

**Humidity:** 0 - 90% (non-condensing)

## Operating Temperature:

UPS: 0° to 40°C. (32° - 104°F)  
Battery: 20° to 25°C. (68° - 77°F)  
Higher temperature batteries are available for special order.

## Storage Temperature:

-20° to 70°C. (-4° - 158°F)  
Electronics only.

**Altitude:** Up to 5,000 ft

## Cabinet Sizes:

	(Width")	(Height")	(Depth")
<b>*24-50kW:</b>	34"	75"	31.5"
<b>*64-128kW:</b>	55.5"	75"	31.5"
<b>Battery Cab:</b>	51"	70"	30.5"

\* The electronics cabinet unit must be sized to handle system inrush current, while the battery cabinet must provide backup time for steady-state current.

## Standard Features

- Integrated Automatic Transfer Switch:
  - Send Control Signals to Elevator System:
  - Emergency to Utility Power Time Delay.
- 2-Hour Backup
- Dry Contacts (8 Terminal):  
INVON, OVL, FAULT, SS BYPASS, BACKUP, BATL, COM  
(Must select normally open or normally closed not both.)
- Form C Dry Contacts (Normally Closed)
- Independent Phase Control Circuitry:
  - Phase Imbalance Tolerant.
  - Will Operate Completely Unbalanced.
- Pulse Width Modulation Rectifier:
  - 06-Pulse (24kW to 64kW).
  - 12-Pulse (80kW and above).
- Main Input/Output Circuit Breakers.
- Internal Maintenance Bypass.
- Transient Voltage Surge Suppression (TVSS).
- LCD Display for Viewing Unit Status and Events.
- Modular Design for Ease of Service.
- Multiple CPU Design:
  - Individual CPUs for Control Circuit Functions.
  - Parallel Redundancy for Critical Circuits.
- Intelligent Charger w/ Temperature Compensation.
- Redundant Power Supply.
- Integral Protection Against Operator Error.
- Power Conditioning Using PWM Methodology.
- Output Isolation Transformer for True Galvanic Isolation on the Load Side of the Inverter.
- Cold Start Function:
  - Power Up the Unit Using Its Batteries.

## Options

- Regen Agent™ (Regen Management System)
  - Redirects Regenerative Power to:
    - The Building (Normal Operation)
    - Charge the Batteries (Emergency Operation)
- Integral Auxiliary Output Circuit Breakers (Consult Factory)
- Delta Input
- RS-232 / RS-485 Connectors for External Modules:
  - Remote Status Panel UPSCAN™
  - Software for PC Monitoring UPSCOM™
  - Auto Dialing Module UPSCALL™
  - Battery Monitoring Module DCMAN™
- Event Logging up to 500 Events
- WiFi Monitoring (GMS)
- Wireless Battery Monitoring System: (Monitors Battery Health, Including Impedance)
  - String Monitoring
  - Individual Battery Monitoring
- Thermal Runaway Control (IFC 1206.2)
- Battery Cabinet Exhaust Fan (IFC 1206.2)
- Battery Cabinet Exhaust Fan Dry Contact & Audible Alarm (IFC 1206.2)
- Integral Emergency Egress Lighting Backup
- Independent Elevator/Egress Lighting Sub-feed Breakers

Consult Factory for more features and choices of remote communication.

KVA/ KW	INPUT - OUTPUT VOLTAGES	MODEL NUMBERS	DC Voltages	WEIGHTS (LBS) CABINETS	
				UPS	EACH BATTERY (#) OF CAB.
30/24	208/120 - 208/120 480/277 - 480/277	WR030B05ELT3 WR030H09ELT3	348	1260 (1)	4535 (1)
40/32	208/120 - 208/120 480/277 - 480/277	WR040B05ELT3 WR040H09ELT3	348	1414 (1)	3416 (2)
50/40	208/120 - 208/120 480/277 - 480/277	WR050B05ELT3 WR050H09ELT3	348	1525 (1)	3867 (2)
60/50	208/120 - 208/120 480/277 - 480/277	WR060B05ELT3 WR060H09ELT3	348	1724 (1)	4923 (2)
80/64	208/120 - 208/120 480/277 - 480/277	WR080B05ELT3 WR080H09ELT3	348	2276 (1)	3707 (1) 4729 (2)
100/80	208/120 - 208/120 480/277 - 480/277	WR100B05ELT3 WR100H09ELT3	348	2984 (1)	3416 (2) 4923 (2)
120/96	208/120 - 208/120 480/277 - 480/277	WR120B05ELT3 WR120H09ELT3	348	3138 (1)	4923 (4)
160/128	208/120 - 208/120 480/277 - 480/277	WR160B05ELT3 WR160H09ELT3	348	3868 (1)	**
200/160	480/277 - 480/277	WR200H09ELT3	348	5746 (1)	**
*240/192	480/277 - 480/277	WR240H09ELT3	348	6229 (1)	**
*300/240	480/277 - 480/277	WR300H09ELT3	348	7293 (1)	**

\* Units are available only upon request.  
\*\* Consult Factory.

Specifications are subject to change without prior notification.



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