

A game-changing solution for your power needs.

# *EcoVault 5050*<sup>®</sup> | *EcoVault APU-10K*<sup>®</sup>

Leading technology of portable power.



Hypermedia international inc.  
15 Hammond, Suite 304,  
Irvine, CA 92618

+1 (949) 916-8890  
info@hypermediintl.com  
<https://www.hypermediintl.com/>

## Outline

### EcoVault Series: EcoVault 5050 & EcoVault APU 10K

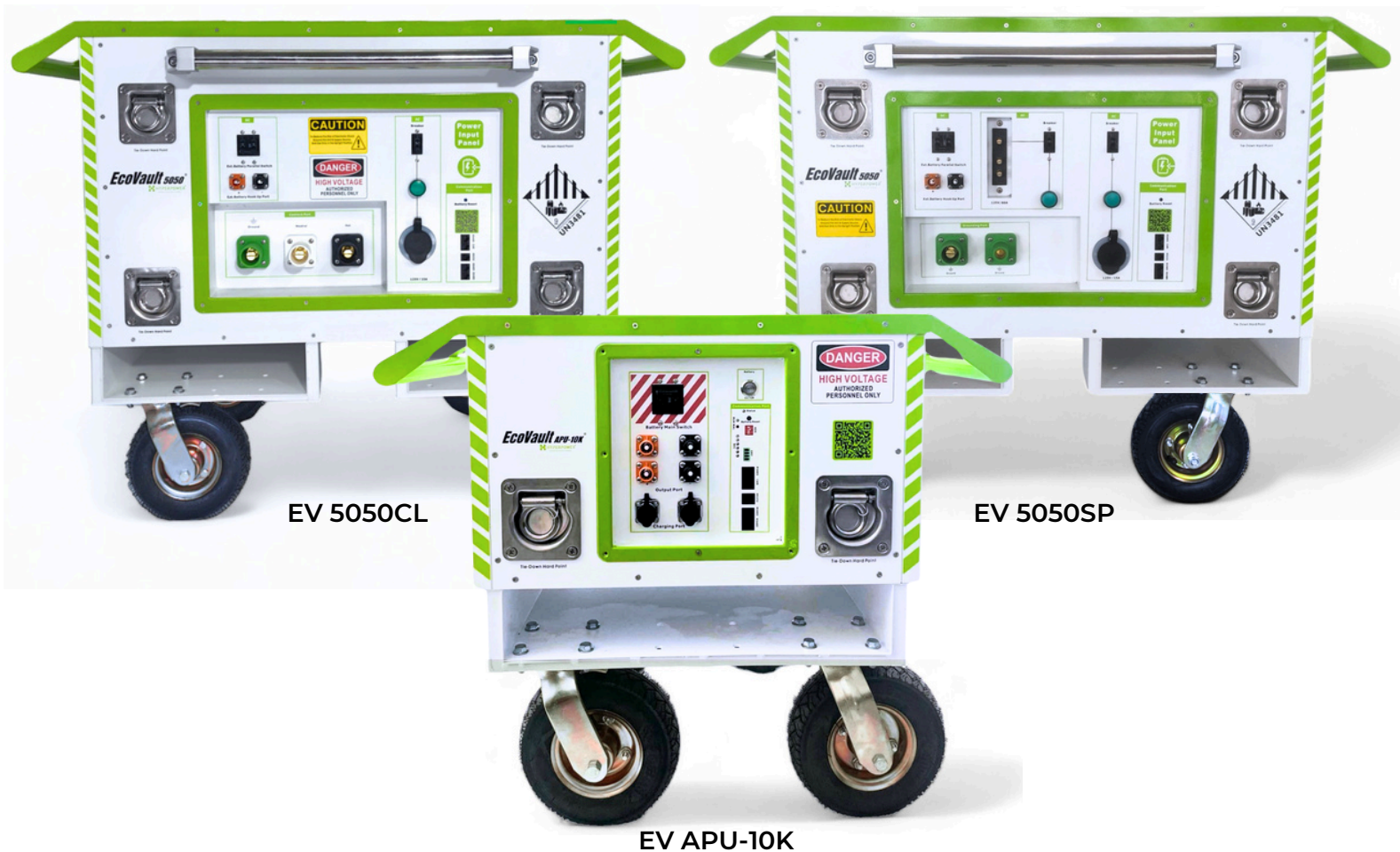
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# EcoVault 5050<sup>®</sup> | EcoVault APU-10K<sup>®</sup>

Introducing the EcoVault 5050 and EcoVault APU-10K, representing the future of portable power. The EcoVault 5050 offers scalable flexibility, allowing you to easily expand your energy needs and move beyond the limitations of traditional gas generators. When paired with the EcoVault APU-10K, you can extend your battery capacity to an impressive 155kWh. This eco-friendly solution is emission-free and noiseless, ensuring a greener and quieter experience.

The EcoVault series features handles on all sides, forklift slots, and tie-down hardpoints, providing exceptional portability for any terrain. Ideal for film shoots, broadcasting, outdoor events, and construction sites, the EcoVault Series delivers unmatched adaptability and performance.



# EcoVault 5050<sup>®</sup> | EcoVault APU-10K<sup>®</sup>

The EcoVault 5050 series comes with two models, each offering versatile 5kW/5kWh power solutions with distinct high amperage receptacle systems.

- **EcoVault 5050SP (Stage Pin System):**

Equipped with Bates/Stage Pin connectors, this model features receptacles rated for 120V/60A, with a maximum output of 40A.

- **EcoVault 5050CL (Camlock System):**

Featuring Camlock connectors, this model features receptacles rated for 120V/100A, with a maximum output of 40A.



To facilitate the Scalability and Uninterruptable Power Supply (UPS):

- **EcoVault APU-10K (10kWh Portable Power Pack):**

Designed to integrate with the EcoVault 5050 models, this LiFePO<sub>4</sub> unit offers excellent reliability, rapid charging, and over 3000 lifecycles. It supports parallel connection capability with up to 15 APU-10K units, scaling your battery capacity up to 155kWh for a robust and efficient power solution.



## Unique Features

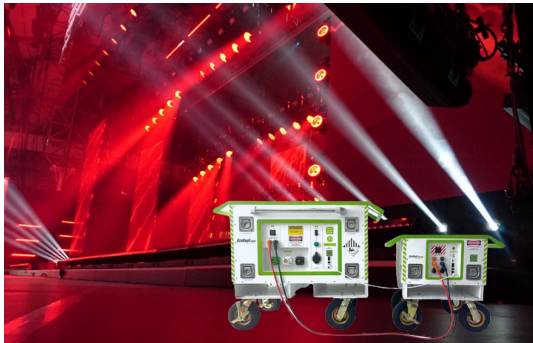
What **EcoVault 5050** & **EcoVault APU-10K** do differently:

### **1. Flexibility Redefined:**

From outdoor film locations to construction sites, events, or emergency response, the EcoVault 5050 delivers versatile and scalable power solutions. Experience exceptional convenience and leave behind the constraints of traditional gas-powered generators with a solution that's adaptable, flexible, and eco-friendly.

### **2. Extending Battery Capacity with EcoVault APU-10K:**

Break free from limited battery capacity. When integrated with the EcoVault 5050, the EcoVault APU-10K enables an extended battery capacity of 10kWh increments, reaching up to 155kWh, ensuring a robust and reliable power solution for any application.



### **3. Eco-Conscious Innovation:**

The EcoVault 5050 is more than just a power station; it's an eco-friendly, electric marvel. Aligning with sustainable practices, the EcoVault 5050 reduces your carbon footprint significantly by producing zero emissions.

### **4. Portability Perfected**

Designed with a compact structure, the EcoVault 5050 eliminates logistical challenges. Its portability is enhanced with four 8-inch heavy-duty rubber tires and handles on all four sides, ensuring easy transport across different terrains without the need for trailers. It also includes forklift slots and tie-down hardpoints for secure handling.

## Scalability and Uninterrupted Power Supply (UPS) Feature

The EcoVault system offers two primary scalability options based on space, ensuring continuous power supply even in the most demanding environments:

### **Single Unit Connection:**

Ideal for confined spaces where only one APU-10K unit can be connected to meet power demands while providing an uninterrupted power supply.



### **Multiple Units Parallel Connection:**

Suitable for larger spaces, allowing the integration of multiple APU-10K units with the EcoVault 5050 to enhance power capacity and operational efficiency.



In scenarios where up to 15 APU-10K units are connected in parallel with the EcoVault 5050, the system discharges power sequentially, starting from the last unit (15th) and moving to the 14th, 13th, and so on.



This **last-in, first-out design** allows for easy removal of depleted units, providing a significant advantage over other systems where mid-line units can't be removed without disrupting the power flow.

This advanced scalability feature, combined with its UPS capability, makes the EcoVault system a robust solution for a wide range of applications, ensuring consistent and efficient power management.

## Gas Generator Comparison & Innovations

Traditional 20-30kW gas generators come with several drawbacks, including limited runtime, high fuel costs, and a significant carbon footprint. They also require extensive cables and labor for power distribution, and their loud operation often necessitates locating them away from the main work area.

- Limited Runtime requiring frequent refuelling
- Fixed Power Capacity
- Cost of Fuel
- A Major Contributor to Carbon Footprint
- Longer Start Up Time
- Limited Portability Options



### With HyperPower, we provide solutions to address these problems

The EcoVault series offers a more efficient and flexible solution for power needs. By utilizing multiple EcoVault 5050 units and APU-10K batteries, users can easily scale power capacity based on their needs and transport these units to various locations as required, eliminating the need for cumbersome and lengthy cables.



**vs**



This setup not only reduces labor and setup time but also minimizes noise emissions, providing a cleaner, quieter, and more adaptable power solution. Unlike traditional generators, which require extensive fuel and must be placed away from work areas due to their noise, the EcoVault system is quiet, environmentally friendly, and easily portable.

## EcoVault offers Battery Equalization

EcoVault's LiFePO<sub>4</sub> battery storage system features innovative battery equalization technology, ensuring every cell achieves a balanced charge, which provides:

### **1. Extended Lifespan:**

Significantly prolongs the lifespan of the battery pack, supporting sustainable energy practices.

### **2. Uniform Charge Maintenance:**

Ensures all cells within EcoVault achieve uniform charging, promoting system balance.

### **3. Less Frequent Intervention:**

Unlike lead-acid batteries, EcoVault typically requires minimal maintenance and equalization.

### **4. Voltage Balance:**

Prevents overcharging or undercharging, safeguarding battery health.

### **5. Enhanced Health and Efficiency:**

Maintains overall system health and efficiency, ensuring reliable power output.



## **Active Battery Equalization (ABE) Modes:**

### **1. Dynamic Charge/Discharge Mode:**

- Continuously monitors cell battery voltage.
- Automatically equalizes when the cell voltage difference exceeds 100mV.
- Stops equalizing once the difference is below 20mV.

### **2. Monthly Scheduled Mode:**

- Activates equalization monthly if the cell voltage difference is 20-100mV.
- Stops when the difference drops below 20mV.



# EcoVault 5050<sup>®</sup>

Experience unparalleled power and versatility with the EcoVault 5050. Designed to meet modern energy needs, this 5kW/5kWh powerhouse comes in two models: the **EcoVault 5050SP (Stage Pin System)** and the **EcoVault 5050CL (Camlock System)**. The key difference between these models is their high amperage receptacle variant, allowing you to choose the most suitable connector for your power distribution needs.

- **High Capacity and Output:**

The EcoVault 5050 is equipped with a 5kW inverter and a 5kWh lithium-ion (LiFePO<sub>4</sub>) battery, making it an ideal power source for outdoor film locations, construction sites, events, and emergencies. Its system can handle a surge of up to 10.2kW, ensuring reliable performance in demanding situations.

- **Advanced Safety Features:**

The EcoVault 5050 is designed with state-of-the-art safety mechanisms, including balanced cell charging technology that promotes optimal performance and longevity. These features ensure safe operation across diverse conditions, protecting both the user and the device.

- **Efficient Charging for Maximum Uptime:**

The EcoVault 5050SP (Stage Pin) and EcoVault 5050CL (Camlock) charge in just 1.5 hours, with an AC Edison Receptacle option that charges in 4.5 hours. Whether you need quick turnaround times or versatile charging options, the EcoVault 5050 ensures your operations run smoothly.



EV 5050CL



EV 5050SP

# EcoVault APU-10K<sup>®</sup>

Experience the 10kWh EcoVault APU-10K portable power pack, known for its LiFePO<sub>4</sub> reliability, rapid charging, and over 3000 lifecycles. It is engineered for optimal performance in diverse environments.

- **High Capacity and Durability:**

10kWh LiFePO<sub>4</sub> battery designed for over 3000 cycles at 80% capacity.

- **Fast Charging:**

Achieve full charge in just 6 hours using dual DC input charging, with an external charger supporting a maximum output voltage of 58.4V and an output current of 20A.

- **Efficient DC Output:**

Experience reliable performance with DC output ports rated at 100A and Dual SurLok Plus Connectors, making the EcoVault APU-10K perfect for demanding applications.

- **Flexible Communication Ports:**

Includes RS485, RS232, and CAN communication ports for seamless integration and monitoring, enhancing operational flexibility and control.



## Specifications

	EcoVault 5050SP Stage Pin System	EcoVault 5050CL Camlock System
<b>Battery Specification</b>	Chemistry: Lithium-ion (LiFePO <sub>4</sub> ) Capacity: 5kWh Lifecycles: >3000cycles charges to 80% capacity	
<b>Rated Output</b>	Power Rating: 5kW Inverter, Continuous Output: 5kW (Max. Surge Rating: 10.2kW, Peak Power: 10kW)	
<b>Battery Capacity</b>	5kWh can be augmented with an APU-10K for 10kWh in parallel, expandable to 15 APU-10K units for a total capacity of 155kWh.	
<b>AC Output</b>	120VAC Pure Sine Wave 120V 60Hz, Single Phase, 42A Continuous	
<b>Output Ports</b>	AC Output 1: 1x 125VAC/60A Max. Stage Pin Receptacle  AC Output 2: 2x 125VAC/20A Receptacles (NEMA 5-20R Type)  DC: 1x 5VDC/2.4A USB Receptacle and 1x 5VDC/3A Type-C Receptacle	AC Output 1: 1x 125VAC/100A Max. Camlock Receptacle (Ground, Neutral, Hot)  AC Output 2: 2x 125VAC/20A Receptacles (NEMA 5-20R Type)  DC: 1x 5VDC/2.4A USB Receptacle and 1x 5VDC/3A Type-C Receptacle
<b>Charging Ports</b>	AC Charging 1: 1x 125VAC/ 60A Stage Pin Receptacle  AC Charging 2: 1x 125VAC/ 15A (NEMA5-15R Type)  DC Dual Surlok Plus Connectors	AC Charging 1: 1x 125VAC/ 100A Camlock Receptacles (Ground, Neutral, Hot)  AC Charging 2: 1x 125VAC / 15A (NEMA 5-15R Type)  DC Dual Surlok Plus Connectors
<b>Charging Time</b>	Single Stage Pin Receptacle AC Charging: 1.5 Hours 1 AC Edison Receptacle Charging: 4.5 Hours Single Camlock Receptacle AC Charging: 1.5 Hours	
<b>Battery Equalization</b>	Active Equalization Unit helps maintain battery health and extends its lifespan	
<b>Operation Temperature</b>	Charging: -10~50°C Discharging: -10~50°C	
<b>Chassis Mechanical Specification</b>	A 2mm galvanized steel chassis, handlebars all around, and 8-inch heavy-duty rubber tire casters.	
<b>Weight</b>	140kg   308.65lbs	
<b>Dimensions (L x W x H)</b>	1143×690×905mm   44.96x27.2x35.6inch	
<b>Protection</b>	Overcharge/ Over-Discharge/ Short Circuit/ Overload/ Over-Voltage/ Over-Temperature/ Master On/Off/ Individual Breakers for Input/Outputs that can Reset	
<b>Safety Certification</b>	UL All components are UL compliant.	
<b>Warranty</b>	1 Year	

# EcoVault APU-10K<sup>®</sup>

## Specifications

	EcoVault APU-10K
<b>Battery Specification</b>	Chemistry: Lithium-ion (LiFePO4) Capacity: 10kWh Lifecycles: >3000 cycles charges to 80% capacity
<b>DC Output DC Output Ports</b>	DC 100A Dual SurLok Plus Connectors
<b>DC Charging Ports</b>	LP20/ 3-Pin Connectors
<b>Charging Time</b>	Dual DC Input Charging: 6 Hours
<b>External Charger Max. Output Voltage</b>	58.4V
<b>External Charger Output Current</b>	20A
<b>Operation Temperature</b>	Charging: 0~55°C Discharging: -20~55°C
<b>Unit Communication Ports</b>	RS485/RS232/CAN
<b>Battery Equalization</b>	Active Equalization Unit helps maintain battery health and extends its lifespan
<b>Chassis Mechanical Specification</b>	A 2mm galvanized steel chassis, handlebars all around, and 8-inch heavy-duty heavy duty rubber tire casters.
<b>Weight</b>	130kg   286.6lbs
<b>Dimensions (L x W x H)</b>	772×535×690mm±5mm   30.3x21.0x27.1inch
<b>Protection</b>	Overcharge/ Over-Discharge/ Short Circuit/ Overload/ Over-Voltage/ Over-Temperature/ Master On/Off/ Individual Breakers for Input/Outputs that can Reset
<b>Safety Certification</b>	UL All components are UL compliant.
<b>Warranty</b>	1 Year

### EV 5050SP Output Panel



- |   |  |
|---|--|
| <ul style="list-style-type: none"> <li>1 Handlebars</li> <li>2 Master Power (On/Off)</li> <li>3 AC 125V/ 20A Edison Receptacle</li> <li>4 AC 125V/ 20A Edison Receptacle Indicator Light</li> <li>5 AC 125V/ 20A Edison Receptacle Breaker</li> <li>6 Power Output Panel Label</li> <li>7 Product Support QR Code</li> <li>8 Power Output Label</li> <li>9 Product Name Badge (EcoVault 5050)</li> <li>10 5V USB Receptacle and 5V Type-C Receptacle</li> </ul> | <ul style="list-style-type: none"> <li>11 Touchscreen System Monitor</li> <li>12 Battery Power On/Off Button</li> <li>13 AC 125V/ 40A Max. Receptacle Breaker</li> <li>14 AC 125V/ 40A Max. Receptacle Indicator Light</li> <li>15 AC 125V/ 40A Max. Stage Pin Receptacle</li> <li>16 Tie-Down Points</li> <li>17 Caution Label</li> <li>18 Danger High Voltage Label</li> <li>19 Forklift Lift Slots</li> <li>20 8-Inch Rubber Caster</li> <li>21 Antenna Port</li> </ul> |
|---|--|

### EV 5050SP Charging Panel



- |   |   |
|---|---|
| <ul style="list-style-type: none"> <li>1 Handlebars</li> <li>2 Caution Label</li> <li>3 EcoVault 5050 Label</li> <li>4 UN3481 Label</li> <li>5 Power Input Label</li> <li>6 DC External Battery Hook Up Receptacle (SurLok Plus Connectors)</li> <li>7 DC External Battery Parallel Switch</li> <li>8 Battery Reset</li> <li>9 Product Support QR Code</li> </ul> | <ul style="list-style-type: none"> <li>10 RS485, CAN, RS232, RS485 Communication Ports</li> <li>11 AC 125V/ 60A Stage Pin Receptacle</li> <li>12 AC 125V/ 60A Stage Pin Breaker</li> <li>13 AC 125V/ 60A Stage Pin Indicator Light</li> <li>14 AC 125V/ 15A Charging Receptacle Breaker</li> <li>15 AC 125V/ 15A Charging Receptacle Indicator Light</li> <li>16 AC 125V/ 15A Edison Charging Receptacle</li> <li>17 Grounding Receptacles Male and Female</li> <li>18 Tie-Down Points</li> </ul> |
|---|---|

### EV 5050CL Output Panel



- |  |   |
|--|---|
| 1 Handlebars                                     | 11 Touchscreen System Monitor                         |
| 2 Master Power (On/Off)                          | 12 Camlock Receptacle Breaker                         |
| 3 AC 125V/ 20A Edison Receptacle                 | 13 Camlock Receptacle Indicator Light                 |
| 4 AC 125V/ 20A Edison Receptacle Indicator Light | 14 Camlock Receptacle ( <b>Ground, Neutral, Hot</b> ) |
| 5 AC 125V/ 20A Edison Receptacle Breaker         | 15 Tie-Down Points                                    |
| 6 Power Output Panel Label                       | 16 Caution Label                                      |
| 7 Product Support QR Code                        | 17 Danger High Voltage Label                          |
| 8 Battery Power On/Off Button                    | 18 Product Name Badge (EcoVault 5050)                 |
| 9 Power Output Label                             | 19 Forklift Lift Slots                                |
| 10 5V USB Receptacle and 5V Type C Receptacle    | 20 8-Inch Rubber Caster                               |
|  | 21 Antenna Port                                       |

### EV 5050CL Charging Panel



- |   |   |
|---|---|
| 1 Handlebars  | 9 Product Support QR Code                             |
| 2 Danger High Voltage Label                                       | 10 RS485, CAN, RS232, RS485 Communication Ports       |
| 3 EcoVault 5050 Label   | 11 AC 125V/15V Charging Receptacle Breaker            |
| 4 Caution Label   | 12 AC 125V/15V Charging Receptacle Indicator Light    |
| 5 Power Input Label   | 13 AC 125V/15V Edison Charging Receptacle             |
| 6 DC External Battery Hook Up Receptacle (SurLok Plus Connectors) | 14 Tie-Down Points                                    |
| 7 DC External Battery Parallel Switch                             | 15 Camlock Receptacle ( <b>Ground, Neutral, Hot</b> ) |
| 8 Battery Reset   | 16 UN3481 Label                                       |

# EcoVault 5050<sup>®</sup>

## External Layout

Left Side View



- 1 Handlebars
- 2 EcoVault 5050 Label
- 3 Fan Ports
- 4 Keep Vents Clear Label
- 5 Forklift Lift Slots
- 6 8 Inch Rubber Caster

Right Side View



- 1 Handlebars
- 2 EcoVault 5050 Label
- 3 Fan Ports
- 4 Keep Vents Clear Label
- 5 Forklift Lift Slots
- 6 8 Inch Rubber Caster

# EcoVault APU-10K<sup>®</sup>

## External Layout

Front View



- 1 Master Power (On/Off)
- 2 Output Receptacle
- 3 Charging Receptacle
- 4 Battery Power On/Off Button
- 5 Battery Reset
- 6 Battery Status, SOC, Reset, and DIP Switch
- 7 RS485, CAN, RS232, and RS485 Communication Port
- 8 Product Name Badge (EcoVault APU-10K)
- 9 Danger High Voltage Label
- 10 Tie-Down Points
- 11 Forklift Lift Slots
- 12 8-Inch Rubber Caster
- 13 Product Support QR Code
- 14 Handlebars
- 15 EcoVault APU-10K Label

# EcoVault APU-10K<sup>®</sup>

## External Layout



Back View

- 1 Handlebars
- 2 EcoVault APU-10K Label
- 3 UN3481 Label
- 4 Danger High Voltage Label
- 5 Tie-Down Points
- 6 Product Name Badge (EcoVault APU-10K)
- 7 Forklift Lift Slots
- 8 8-Inch Rubber Caster
- 9 Product Support QR Code

Left Side View



- 1 Handlebar
- 2 EcoVault APU-10K Label
- 3 Louvers
- 4 Caution Label
- 5 Danger High Voltage Label
- 6 Keep Vents Clear Label
- 7 Forklift Lift Slots
- 8 8-Inch Rubber Caster

Right Side View



- 1 Handlebar
- 2 EcoVault APU-10K Label
- 3 Louvers
- 4 UN3481 Label
- 5 Danger High Voltage Label
- 6 Keep Vents Clear Label
- 7 Forklift Lift Slots
- 8 8-Inch Rubber Caster






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**For inquiries please contact:**

 949-916-8890

 info@hypermediintl.com