

# Advanced Energy Systems



# Overview

Discover® Advanced Energy Systems for stationary and mobile applications

**Discover® Advanced Energy Systems (AES)** allow for equipment design and functionality improvements that deliver productivity gains through enhanced cycling, charge time and weight reductions in stationary and mobile applications.

**Advanced Energy Systems** set the standard with dramatic improvements in cycle life and charge efficiency, and combined with zero maintenance requirements, provide customers the greatest total cost of ownership savings in advanced battery technologies.

## Applications

- Floor machines
- Renewable Energy
- Material Handling
- Aerial Work Platforms
- Marine
- Recreational Vehicles
- Electric Vehicles
- AGV
- Robotics

## Benefits & Features

### Asset Tracking

- Keep track of how, where and by whom the equipment is being used.
- Performance and work cycle tracking with integrated AES data logging.

### TCO Improvements

- Increased life leads to reduced service and replacement costs.
- Up to 30% reduction in energy used during charge.
- Maintenance-free.
- Eliminates costs related to operational misdiagnosis with integrated AES diagnostic software.

### Productivity

- Reduced charge times with faster charging capability.
- Opportunity charging with no negative affect on service life.
- Increased energy density for longer run times.
- High-sustained power reduces motor fatigue and increases motor controller performance.

### Environmentally Responsible

- Emission free.
- Reduced annual energy consumption and CO2 emissions for charging.
- Discover® AES are collected and recycled through Discover's global distribution network.

# Product Range

Series and Model #	NOMINAL CAPACITY		NOMINAL ENERGY		MAXIMUM CURRENT	MECHANICAL CHARACTERISTICS								CASE
	AMP HOUR		WATT HOUR		CHARGE AND DISCHARGE	LENGTH		WIDTH		HEIGHT		WEIGHT		
	120 HR	1 HR	120 HR	1 HR	AMPS	IN	MM	IN	MM	IN	MM	LB	KG	
<b>24 VOLT</b>														
14-24-2800	110	110	2816	2816	150	13.3	338.5	13.0	338.5	10.8	276	88	40	Steel
15-24-1000	40	40	1024	1024	40	10.2	258	6.6	167	7.8	198	27	12.6	PP
<b>48 VOLT</b>														
12-48-6650	130	130	6656	6656	150	18.5	471.5	13.3	338.5	14.7	375	192	87	Steel
<b>24 VOLT - RE</b>														
44-24-2800	110	110	2816	2816	150	13	329.5	13.3	338.5	10.8	276	88	40	Steel
<b>48 VOLT - RE</b>														
42-48-6650	130	130	6656	6656	150	18.5	471.5	13.3	338.5	14.7	375	192	87	Steel

## Safety and Performance

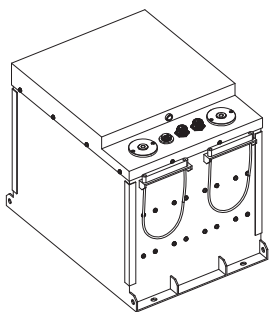
All Discover Advanced Energy Systems (not just the cells) are independently tested and certified for compliance with United Nations and Department of Transportation UN38.3.

Recommendations for safe transportation of dangerous goods including: (T1) Altitude (T2) Thermal (T3) Vibration (T4) Shock (T5) Short Circuit (T6) Impact (T7) Overcharge Certifications.

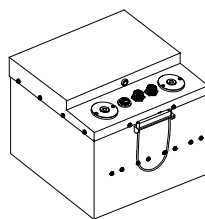
## Packaging

All Discover® Advanced Energy System are packaged and shipped in Class 9 group II certified packaging for compliance with UN 3480 packaging requirements.

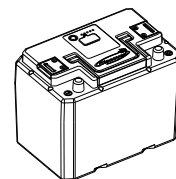
## Drawings



**12 Series  
42 Series**



**14 Series  
44 Series**



**15 Series**

Innovative Technology  
Proven Expertise  
Best in Class Solutions



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