# ENERGY POWER

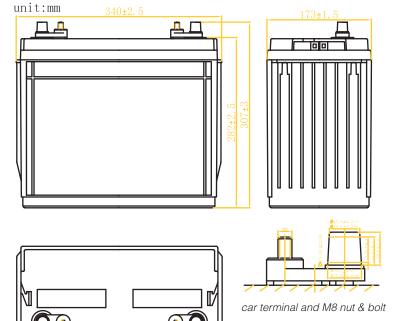


561 Thornton Road, Suite J, Lithia Springs, GA 30122 888-823-0954

# **©** EV SERIES

VALVE REGULATED LEAD ACID BATTERY





## EP-EV12V135A-AM 6-EVF-135B

Energy Power EV Series Batteries provide superior performance, capacities and reliability. Using state of art dry cell technology the EV series is designed for environmentally sensitive areas that require enhanced cycle life capabilities in commercial, industrial, residential, and private applications.

The maintenance free (VRLA) construction and advanced design features makes the EV Series the definitive choice for a wide variety of markets; solar and renewable energy storage; electric vehicle and golf cart; industrial equipment, floor machines, forklifts, aerial lifts, and robotics; marine, RV, and no-idle solutions; mobility and medical equipment; telecom, broadband and cable TV; UPS systems.

#### FEATURES AND BENEFITS

- The Energy Power, EV Battery Series along with our factories are certified to multiple standards:
  - ISO, OHSAS18001, UL, CE
  - QC/T 742-2006, GB/T18332.1-2009
- High density lead paste and specialized paste formula for deep cycle application.
- High strength ABS or PP case & cover and valveregulated construction.
- Maintenance-free. High capacities.
- Environmentally friendly, classified as "Non-Spillable Battery" for transportation. Complies with DOT CFR 49.173.
- High tin alloy grids offer: Less gassing, High corrosionresistant, Low self discharge, Alloy sheeting material for deep cycle applications.
- Exceptional adaptability to operate at high and low temperature environments.
- Durable copper and stainless steel terminals for high electric conductivity.
- Excellent cycle life: 80% DOD 800 cycles.
- Exclusive electrolyte formula and separator, for protecting the electrolyte density from stratification.
- Superior design allows for fast charge acceptance and resistance to over-discharge.

unit: mm

# MECHANICAL CHARACTERISTICS

Overall Height (mm)	307±3				
Container Height (mm)	282±2.5				
Length (mm)	340±2.5				
Width (mm)	173±1.5				
Weight Approx.	40 kg(88 lbs) - Tolerance±3%				
Cells Per Unit	6				
Container Material	ABS				
Voltage Per Unit	12				
Terminal	car terminal & M8 nut & bolt				

#### **ELECTRICAL CHARACTERISTICS**

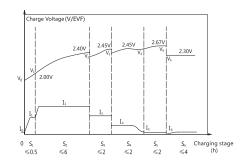
Capacity	135Ah @ 10hr-rate to 1.8V per cell @25°C (77°F)					
Internal Resistance	Approx. $4.5$ m $Ω$					
Self Discharge	Can be stored for more than 6 months at 25°C (77°F). Please charge batteries before using. For higher temperatures the time interval will be shorter.					
Maximum Discharge Current	1200A (5sec)					
Nominal Operating Temperature Range	25°C±3°C (77°F±5°F)					
Float Charging Voltage	13.5 to 13.8 VDC/unit Average at 25°C (77°F)					
Recommended Maximum Charging Current Limit	36A					
Equalization and Cycle Service	14.4 to 15.0 VDC/unit Average at 25°C (77°F)					

#### **ELECTRICAL CHARACTERISTICS**

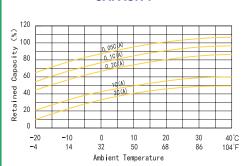
Final Voltage 1.75V/Cell	Constant Current Discharge Characteristics Unit:A 25°C (77°F)					Constant Power Discharge Characteristics Unit:W 25°C (77°F)						
	20H	10H	5H	3H	2H	1H	20H	10H	5H	3H	2H	1H
	7.27	13.72	16.5	23.8	35	78.1	14.27	26.72	32.0	46.3	66.6	147.1

#### **CHARGE / DISCHARGE TABLES & GRAPHS**

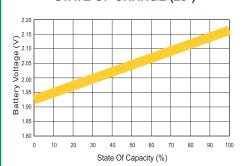
#### **CHARGE CHARACTERISTIC CURVE**



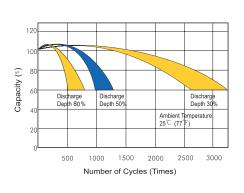
# TEMPERATURE EFFECTS ON CAPACITY



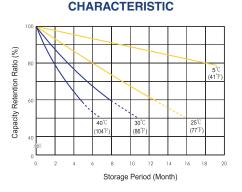
# RELATIONSHIP OF OCV AND STATE OF CHARGE (20°)



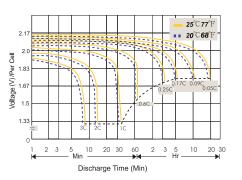
#### **CYCLE SERVICE LIFE**



## CAPACITY RETENTION



# TERMINAL VOLTAGE (V) AND DISCHARGE TIME



To ensure safe and efficient operations always refer to the latest edition of our Technical Manual, as published on our Web site. All specifications subject to change without notice.







