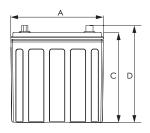


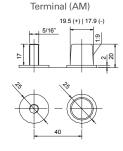
# **EV Traction Dry Cell Industrial Battery Block**

Discover® EV Series Industrial Batteries provide superior high integrity and reliability for commercial, industrial and private applications. The maintenance-free, thick plate construction, designed for tough applications and repeated deep discharging makes the EV Series the definitive choice for robustTraction applications including Home Medical Equipment (HME), Electric Vehicle, Automated Guided Vehicles (AGV), Aerial Lifts, Floor Cleaning Equipment, Robotics, Materials Handling, Renewable Energy and Marine / RV applications.

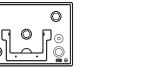
## **MECHANICAL DRAWINGS**











Optional Terminal (F10-M8)





## **MECHANICAL SPECIFICATIONS**

Industry Reference	GC6		
Length (A)	10.2 in 260 mm		
Width (B)	7.1 in 180 mm		
Height (C)	10.0 in 254 mm		
Total Height (D)	10.8 in	274 mm	
Weight	63 lbs	29 kgs	
Terminal (Opt'l)*	AM (F10-M8)		
Cell(s)	3		
Electrolyte	ctrolyte 1.2875 S.G. AGM		

<sup>\*</sup>TERMINAL TORQUE: Please refer to our document, located in the Resources webpage (www.discoverbattery.com/resources).

## **ELECTRICAL SPECIFICATIONS**

Voltage	6 V		
80% DOD Voltage Cutoff	5.7 V		
Internal Resistance	1.80 mΩ		
Short Circuit (20°C   68°F)	3000 A		
Self Discharge	Less than 3% per month (20°C 68°F)		
Cranking Amps**	885 @ 0°C (32°F) 735 @ -18°C (0°		
Charge Temperature	Min: -10°C ( 14°F)   Max: 50°C (122°F)		
Discharge Temperature***	Min: -20°C (-4°F)   Max: 50°C (122°F)		
Storage	Min: -20°C (-4°F)   Max: 60°C (140°F)		

<sup>\*\*</sup>CRANKING AMPS: Cranking Amps data is provided as a reference only. Specific application sizing and life factors must be considered when using deep cycle product in a starting application.

#### **ELECTRICAL SPECIFICATIONS**

Amp Hours (AH)			Minutes of Discharge							
100 HR	20 HR	10 HR	5 HR	3 HR	1 HR	@25A	@56A	@75A	@85A	@100A
222	207	185	165	150	112	420	156	110	95	77

Maximum Current	Peak (5 seconds)	Peak (5 seconds) Peak (10 seconds)		Recommended Continuous	
Charge	1C10Hr	0.75C10Hr	0.5C10Hr	0.3C10Hr	
Discharge	2C10Hr	1.5C10Hr	1C10Hr	0.5C10Hr	

## **BENEFITS & FEATURES**

Maintenance-Free Clean & Green® choice of Original Equipment Manufacturers.

Traction heavy duty grid design (PbCaSn) gives consistent active material adhesion and corrosion resistance.

High impact reinforced copolymer and polypropylene cases with flat top

A recognized gas recombination efficiency of greater than 99.9%.

Multiple terminal, configuration options and carrying handles available with most models

Classified as a non-spillable battery and is not restricted for transportation by:

- Air (IATA/ICAO provision 67)
- Ground (STB, DOT-CFR-HMR49)
- Water (IMDG amendment 27)

Compatible with sensitive electronic equipment.

Comprehensive design to conserve resources, improve safety and reduce waste. 98% recyclable.

## **CERTIFIED QUALITY**

Designed in accordance with and published in compliance with applicable BCI, IEC and BS EN standards, including:

- IEC60896-21/22
- BS EN 60254-1:2005
- AS/NZS 4029.2.2000

Discover® and its facilities and products are certified to multiple standards:

- ISO, UL, QS, and TUV standards
- FTTS Germany
- Euro Bat classification for Environmental Stewardship Standards















<sup>\*\*\*</sup>CAUTION: Extra considerations must be given to depths of discharge, operating voltages and currents when designing systems for use at maximum temperatures

## NOTE:

IUI with Pulse Termination algorithm uses a pulse termination criterion. As a safety precaution during the Finish phase, if the average cell voltage, or volts per cell (vpc), exceeds U2 and the charger output has been on for more than 30 seconds, the output is shut off until the vpc falls to U3. The finish phase then resumes and this "pulsing" continues until the target overcharge (108% - 112%) is reached.

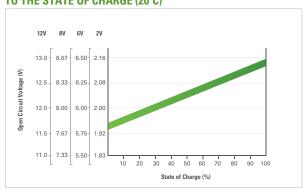
## NOTE 2:

Temperature Coefficient: Adjust +/- 0.005VPC per °C (or 0.003VPC per °F) from 25°C (77°F).

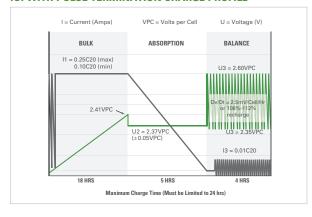
#### **TEMPERATURE EFFECTS ON CAPACITY**



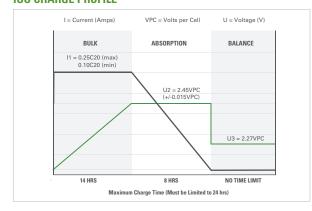
## **OPEN CIRCUIT VOLTAGE IN RELATION** TO THE STATE OF CHARGE (20°C)



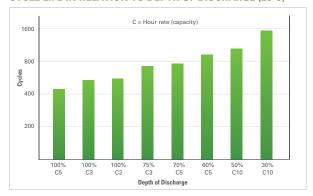
## **IUI WITH PULSE TERMINATION CHARGE PROFILE**



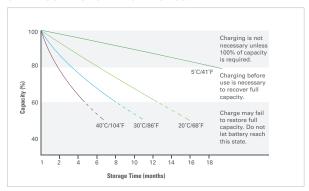
## **IUU CHARGE PROFILE**



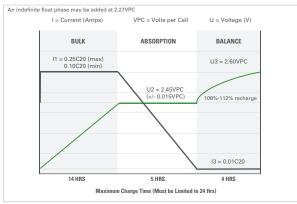
#### CYCLE LIFE IN RELATION TO DEPTH OF DISCHARGE (25°C)



## **SELF-DISCHARGE CHARACTERISTICS**



## **IUI CHARGE PROFILE**



## **RELATION BETWEEN CHARGING, VOLTAGE AND TEMPERATURE**

