

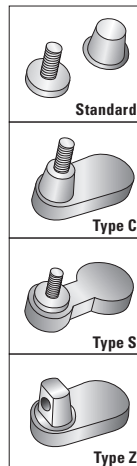
# TECHNICAL DATA SHEET

The Power Behind Performance

## CR-235 Commercial Deep Cycle Battery



### Available Terminals



Crown Battery Manufacturing Company offers a complete lineup of high-performance and low-maintenance commercial deep cycle batteries produced in standard Battery Council International group profiles for voltage, electrical capacity and physical dimension. Crown Battery's innovative and proven deep cycle product design makes it the battery of choice for many tough commercial battery applications, including commercial floor care and aerial access equipment, electric vehicles, personnel carriers, material handling systems and renewable energy systems.

## SPECIFICATIONS

Model Number	CR-235		
Part Number	1440		
Nominal Voltage	6 Volts		
Physical Characteristics	Length	10.25"	260 mm
	Width	7.13"	181 mm
	Height	10.75"	273 mm
	Weight	68 lbs	31 Kgs
Terminal Options	Standard, C, S, Z		

## ELECTRICAL SPECIFICATIONS

Amp Hour Capacity	20 Hr	11.75	235 Ah
	5 Hr	39.00	195 Ah
KWH	6 Hr	1.101	
Reserve Capacity Minutes	100 Amp Rate	88 Minutes	
	75 Amp Rate	125 Minutes	
	50 Amp Rate	205 Minutes	
	25 Amp Rate	478 Minutes	
Internal Resistance	80° F	27° C	5.1 mΩ
	104° F	40° C	102%
Capacity Affected by Temperature (20 Hr Rate)	80° F	27° C	100%
	32° F	0° C	65%

Cover Style:	Exposed Vent Opening
Cover Vent Style:	Quarter-Turn Bayonet Style
Container & Cover Material:	Polypropylene Plastic
Case to Cover Seal Method:	Heat Seal
Inner-Cell Connector Type:	Through Partition Weld
Plate Lug to Collector Bar Fusion Method:	Inverted Automated Cast-On Process
Number of Plates per Battery:	57 Plates
Positive Grid Material:	Antimony Lead Alloy
Positive Grid Design:	Z <sup>3</sup> Horizontal Pellet
Positive Plate Dimension:	6.250" x 6.750" x 0.105" 159 mm x 171 mm x 2.7 mm
Negative Grid Material:	Antimony Lead Alloy
Negative Grid Design:	Z <sup>3</sup> Horizontal Pellet
Negative Plate Dimension:	6.250" x 6.750" x 0.080" 159 mm x 171 mm x 2.0 mm
Separator Type:	Microporous Rubber Leaf with Glass Mat

# CR-235 Commercial Deep Cycle Battery

Crown Battery Manufacturing's team of research and development engineers welcome the opportunity to discuss your technical requirements during the design and specification stage. To access this technical assistance, please contact

**Crown Battery Manufacturing's Customer Service Department**  
800.487.2879 | sales@crownbattery.com | FAX 419.334.7124.

## Recommended Charge Profile:

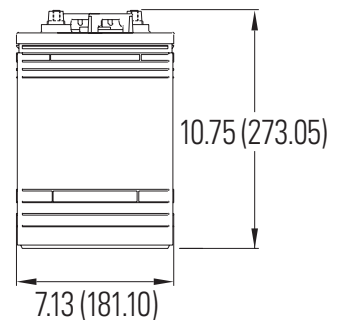
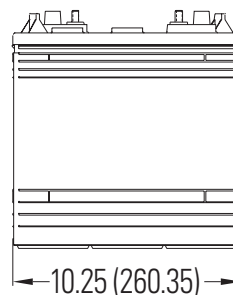
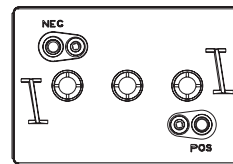
Following discharge, constant current charge the CR-235 battery at 25 to 30 amperes until the battery voltage measures between 2.37 and 2.40 volts per cell (7.11 – 7.2 volts) on charge voltage.

The constant voltage charge phase begins after the gassing point (2.37 – 2.42 VPC) is achieved. During the constant voltage phase, the charger voltage limit is regulated to the gassing point of 2.37 – 2.42 volts per cell, while the input current is allowed to gradually fall off. When the input current drops to the finish rate setting of 9 amperes, the charging phase will change from constant voltage to a sustained 9 ampere constant current mode. The charging cycle will be terminated by a standard approved method of charger termination similar to  $dV/dt$  or 3.5 to 5 hours from the gassing point, with factors such as ambient temperature, battery condition and depth of discharge affecting the charge completion time.

The CR-235 battery should receive a full recharge following the completion of each discharge, along with a monthly equalization service charge. During the equalization charge cycle the finish rate charge time is extended by 3 hours (6.5 to 8 hours from the gassing point).

The charge factor of the standard recharge should be equal to or greater than 1.07 (107%). The charge factor of the equalizing cycle should be equal to or greater than 1.15 (115%).

Please contact Crown Battery Manufacturing Company's engineering department with any questions regarding this charge profile specification.



*The Power Behind Performance*



Data are nominal and should not be construed as maximum or minimum values for specification or for final design. Data for this product type may vary from that shown herein.

Visit our website at [www.crownbattery.com](http://www.crownbattery.com)