

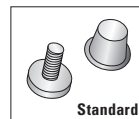
TECHNICAL DATA SHEET

The Power Behind Performance

31DC130 Commercial Deep Cycle Battery



Available Terminal



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	31DC130		
Part Number	1428		
Nominal Voltage	12 Volts		
Physical Characteristics	Length	13.00"	330 mm
	Width	6.75"	171 mm
	Height	9.38"	238 mm
	Weight	66 lbs	30 Kgs
Terminal Options	Standard		

ELECTRICAL SPECIFICATIONS

Amp Hour Capacity	20 Hr	6.50	130 Ah
	5 Hr	21.00	105 Ah
KWH	6 Hr	1.120	
Reserve Capacity Minutes	100 Amp Rate	32 Minutes	
	75 Amp Rate	46 Minutes	
	50 Amp Rate	80 Minutes	
	25 Amp Rate	200 Minutes	
Internal Resistance	80° F	27° C	8.7 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 with PROeye Monitor
Cover Vent Style:	Flush Pod Vent
Container & Cover Material:	Black 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:	114 Plates
Positive Grid Material:	Antimony Lead Alloy
Positive Grid Design:	Z ³ Centerline Diagonal
Positive Plate Dimension:	5.625" x 5.000" x 0.070" 143 mm x 127 mm x 1.8 mm
Negative Grid Material:	Antimony Lead Alloy
Negative Grid Design:	Z ³ Centerline Diagonal
Negative Plate Dimension:	5.625" x 5.000" x 0.055" 143 mm x 127 mm x 1.4 mm
Separator Type:	Microporous Polyethylene PosiWrap™ with Glass Mat

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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:

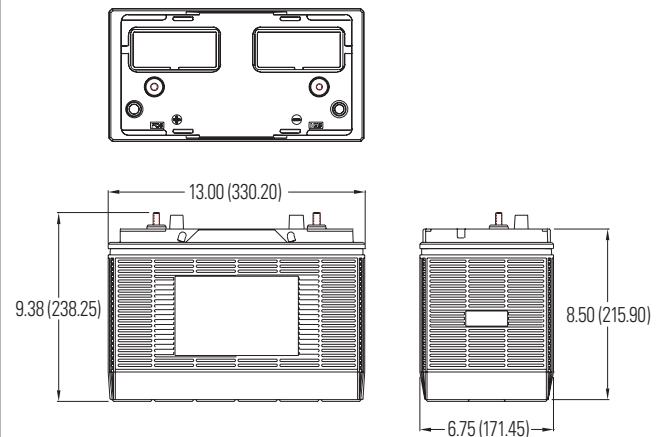
Following discharge, constant current charge the 31DC130 battery at 12 to 15 amperes until the battery on charge voltage measures between 2.37 and 2.40 volts per cell (14.22 – 14.4 volts).

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 4 amperes, the charging phase will change from constant voltage to a sustained 4 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 31DC130 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.



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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.

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