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.

### Model Number
31DC130

### Part Number
1428

### Nominal Voltage
12 Volts

### Physical Characteristics
- Length: 13" = 330 mm
- Width: 6.75" = 171 mm
- Height: 9.38" = 238 mm
- Weight: 66 lbs = 30 Kgs

### Terminal Options
Standard

### Amp Hour Capacity
- 20 Hr: 6.50 Ah
- 5 Hr: 21.00 Ah
- 1 Hr: 42.00 Ah

### KWH
- 6 Hr: 1.120 KWH

### Amp Hour Capacity
- 120 Amp Rate: 32 Minutes
- 75 Amp Rate: 46 Minutes
- 50 Amp Rate: 80 Minutes
- 25 Amp Rate: 200 Minutes

### Reserve Capacity Minutes

### Internal Resistance
- 80°F = 27°C: 8.7 mΩ

### Capacity Affected by Temperature (20 Hr Rate)
- 104°F = 40°C: 102%
- 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

### Negative Grid Material:
Antimony Lead Alloy

### Positive Grid Design:
Z3 Centerline Diagonal

### Negative Grid Design:
Z3 Centerline Diagonal

### Positive Plate Dimension:
5.625" x 5.000" x 0.070"
143 mm x 127 mm x 1.8 mm

### 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
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.

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.