

EMERGENCY  
LIGHT  
SYSTEM



FIRE &  
SECURITY  
SYSTEM



CAR & OTHER  
STARTING  
APPLICATIONS



ELECTRO-  
MEDICAL  
DEVICES



UPS



RAILWAY  
SIGNAL



COMMUNICATIONS  
POWER SUPPLY



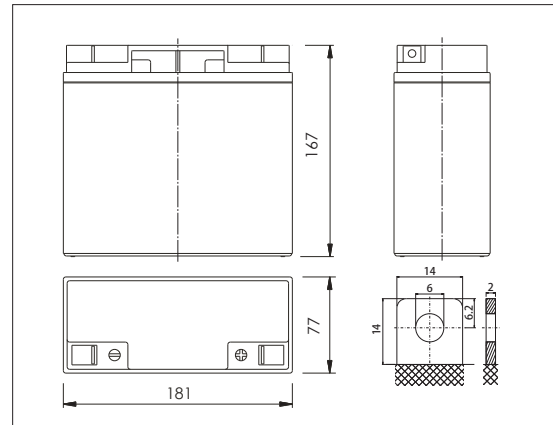
DC POWER  
SUPPLY

# BCN-12V18



## Application

Emergency Light Systems  
Fire & Security System  
Cars & other Starting Applications  
Medical Equipment  
Uninterruptible Power Supply(UPS)  
Railway signal  
Communication Power Supply  
DC Power Supply



## BATTERY BCN 12V18AH Sealed Lead Acid Maintenance Free

### Specifications

|                              |                               |                              |
|------------------------------|-------------------------------|------------------------------|
| Nominal Voltage              |                               | 12V                          |
| Rated Capacity(20 hour rate) |                               | 18Ah                         |
| Dimensions                   | Total Height (with terminals) | 6.57 inches (167mm)          |
|                              | Height                        | 6.57 inches (167mm)          |
|                              | Length                        | 7.13 inches (181mm)          |
|                              | Width                         | 3.03 inches (77mm)           |
| Weight                       |                               | Approx. 11.22 Pound (5.10kg) |

### Characteristics

|                                                    |                                  |                                                                                                    |
|----------------------------------------------------|----------------------------------|----------------------------------------------------------------------------------------------------|
| Capacity<br>77°F(25°C)                             | 20 hour rate (0.9A)              | 18Ah                                                                                               |
|                                                    | 10 hour rate (1.58A)             | 15.8Ah                                                                                             |
|                                                    | 5 hour rate (2.72A)              | 13.6Ah                                                                                             |
|                                                    | 1 hour rate (10.2A)              | 10.2Ah                                                                                             |
|                                                    | 15 minute rate (30.0A)           | 7.5Ah                                                                                              |
| Internal Resistance                                | Full Charged Battery 77°F(25°C)  | 16mΩ                                                                                               |
| Capacity Affected by<br>Temperature (20 hour rate) | 104°F(40°C)                      | 102%                                                                                               |
|                                                    | 77°F(25°C)                       | 100%                                                                                               |
|                                                    | 32°F(0°C)                        | 85%                                                                                                |
|                                                    | 5°F(-15°C)                       | 65%                                                                                                |
| Self-Discharge<br>77°F(25°C)                       | Capacity after 3 months storage  | 91%                                                                                                |
|                                                    | Capacity after 6 months storage  | 81%                                                                                                |
|                                                    | Capacity after 12 months storage | 60%                                                                                                |
| Max. Discharge<br>Current 77°F(25°C)               | 255A(5S)                         |                                                                                                    |
| Terminal                                           | B1/T4                            |                                                                                                    |
| Charge<br>(Constant Voltage)                       | Cycle                            | Initial Charging Current Less than 5.1A                                                            |
|                                                    |                                  | Voltage 14.4 V / 77°F (25°C)                                                                       |
|                                                    |                                  | Equalization temperature compensation coefficient: -24mV/°C                                        |
|                                                    | Float                            | Voltage 13.8V / 77°F (25°C)<br>Compensation coefficient of floating charging temperature: -18mV/°C |

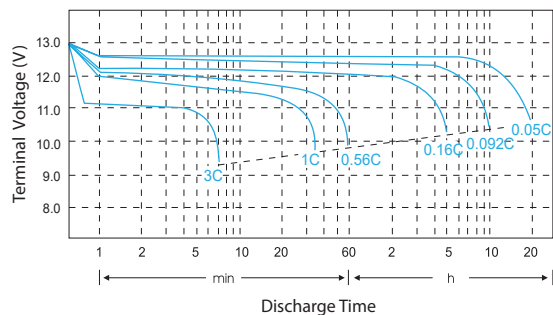
### Constant Current Discharge (Amperes @25°C)

| F.V/Time | 5Min | 10Min | 15Min | 30Min | 60Min | 2H   | 3H   | 4H   | 5H   | 10H  | 20H   |
|----------|------|-------|-------|-------|-------|------|------|------|------|------|-------|
| 1.60     | 64.8 | 41.1  | 30.0  | 18.4  | 10.8  | 6.35 | 4.38 | 3.40 | 2.80 | 1.61 | 0.873 |
| 1.65     | 63.2 | 40.0  | 28.9  | 17.9  | 10.6  | 6.12 | 4.31 | 3.33 | 2.76 | 1.58 | 0.865 |
| 1.70     | 60.4 | 38.3  | 27.8  | 17.5  | 10.4  | 6.04 | 4.27 | 3.30 | 2.76 | 1.58 | 0.858 |
| 1.75     | 57.8 | 36.7  | 27.3  | 17.3  | 10.2  | 5.97 | 4.27 | 3.26 | 2.72 | 1.58 | 0.850 |
| 1.80     | 54.4 | 36.4  | 26.6  | 16.8  | 10.0  | 5.78 | 4.19 | 3.23 | 2.68 | 1.54 | 0.831 |

### Constant Power Discharge (Watts Per Cell@25°C)

| F.V/Time | 5Min | 10Min | 15Min | 30Min | 60Min | 2H   | 3H   | 4H   | 5H   | 10H  | 20H  |
|----------|------|-------|-------|-------|-------|------|------|------|------|------|------|
| 1.60     | 120  | 76.8  | 56.8  | 34.9  | 19.6  | 12.3 | 8.69 | 6.77 | 5.56 | 3.22 | 1.73 |
| 1.65     | 118  | 74.9  | 54.8  | 34.1  | 19.3  | 12.0 | 8.56 | 6.63 | 5.49 | 3.19 | 1.72 |
| 1.70     | 112  | 71.8  | 52.6  | 33.4  | 19.0  | 11.8 | 8.50 | 6.60 | 5.52 | 3.17 | 1.71 |
| 1.75     | 108  | 69.3  | 51.8  | 33.2  | 18.5  | 11.6 | 8.50 | 6.53 | 5.44 | 3.17 | 1.71 |
| 1.80     | 101  | 68.6  | 50.5  | 32.2  | 18.2  | 11.3 | 8.37 | 6.46 | 5.36 | 3.10 | 1.67 |

### Discharge Curves 77°F(25°C)



### Relationship Between Charge Voltage and Temperature

