



## EKO-Power EP Series 100DC

## EP12-

Eko-Power EP-DC series is a specially designed for the deep cycle discharge applications. It means the depth of discharge of EP-DC series in more than 60 percent of the rated capacity. The EP-DC series batteries are applied to the equipments require frequently deep discharge from batteries.

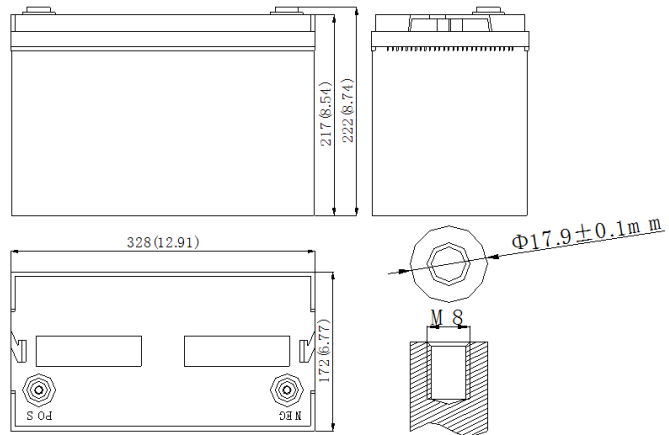
### Application

Solar lighting system, Security system, Electric toy, Medical equipment, Telecommunication system, Power systems, UPS, Electric tools, Electric vehicles, Hobby and so on.



### General Specifications

|                                 |   |               |   |              |
|---------------------------------|---|---------------|---|--------------|
| <b>Nominal Voltage</b>          | 12 V                                      |               |   |              |
| <b>Rated Capacity (25°C)</b>    | 20HR<br>105AH                             | 10HR<br>100AH | 5HR<br>85 AH                              | 1HR<br>55 AH |
| <b>Designed Service Life</b>    | 8~12 years                                |               |   |              |
| <b>Approx. Weight</b>           | 28.3 kg (62.39 lbs)±5%                    |               |   |              |
| <b>Internal Resistance</b>      | Fully charged at 25°C: 0.005 Ohm          |               |   |              |
| <b>Self-discharge</b>           | 3% of capacity declined per month at 25°C |               |   |              |
| <b>Charge Voltage (25°C)</b>    | Cycle use                                 |               | Stand-by use                              |              |
|                                 | 14.4-15.0V(-24mV/°C)<br>max. Current 25A  |               | 13.5-13.8V (-18mV/°C)<br>max. Current 25A |              |
| <b>Dimension:<br/>mm (inch)</b> | Length                                    | Width         | Height                                    | Total Height |
|                                 | 328(12.91)                                | 172 (6.77)    | 217 (8.54)                                | 222 (8.74)   |



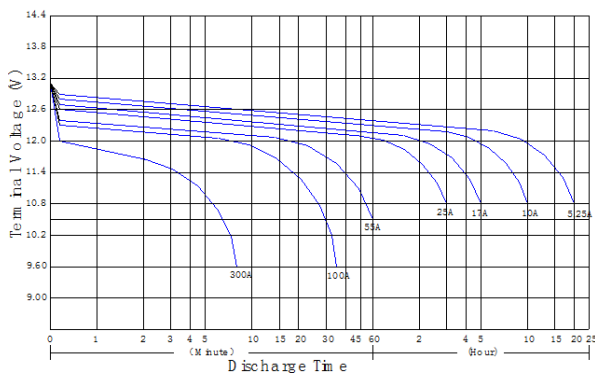
**Constant Current Discharge Data (Amperes at 25°C)**

| Cell Voltage | 5min | 10min | 15min | 30min | 1h   | 3h   | 5h   | 10h  | 20h  |
|--------------|------|-------|-------|-------|------|------|------|------|------|
| 1.80         | 225  | 173   | 150   | 94.5  | 60.7 | 24.1 | 17.2 | 9.5  | 4.92 |
| 1.75         | 255  | 188   | 161   | 96.5  | 61.6 | 24.8 | 17.6 | 9.7  | 5.0  |
| 1.70         | 284  | 202   | 173   | 100   | 62.7 | 25.4 | 18.0 | 9.9  | 5.07 |
| 1.65         | 312  | 218   | 182   | 104   | 63.7 | 25.9 | 18.3 | 10.1 | 5.13 |
| 1.60         | 340  | 233   | 192   | 107   | 64.8 | 26.5 | 18.6 | 10.3 | 5.18 |

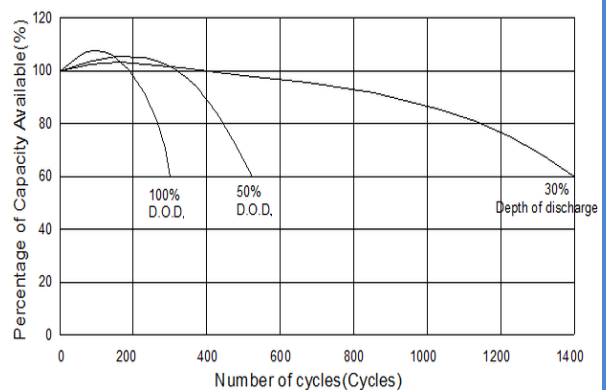
**Constant Power Discharge Data (Watts at 25°C)**

| Cell Voltage | 5min | 10min | 15min | 30min | 45min | 1h  | 2h   | 3h   | 5h   |
|--------------|------|-------|-------|-------|-------|-----|------|------|------|
| 1.80         | 418  | 324   | 294   | 178   | 134   | 118 | 68.0 | 48.5 | 34.7 |
| 1.75         | 459  | 346   | 305   | 184   | 137   | 122 | 68.6 | 49.4 | 35.1 |
| 1.70         | 498  | 365   | 316   | 190   | 140   | 126 | 69.9 | 50.0 | 35.3 |
| 1.65         | 539  | 386   | 327   | 196   | 143   | 127 | 71.2 | 50.6 | 35.5 |
| 1.60         | 579  | 406   | 332   | 202   | 147   | 129 | 72.5 | 51.1 | 35.7 |

**Discharge Characteristic (25°C)**



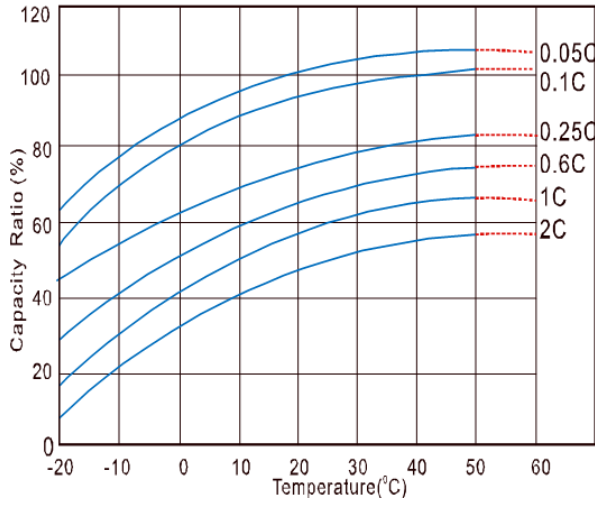
**Number of cycles Vs. Depth of Discharge**



# EKO-Power



**Effect of temperature on capacity**



**Charge Characteristic (25°C)**

