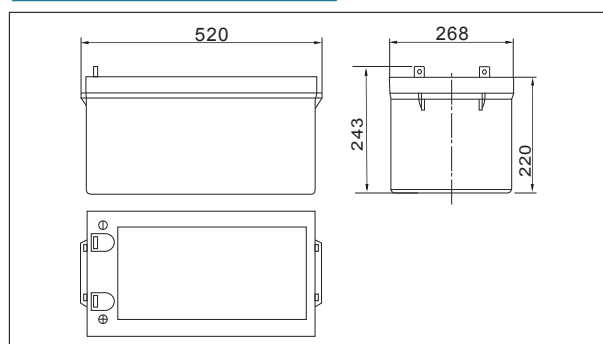


# NPD12-250Ah 12V250Ah

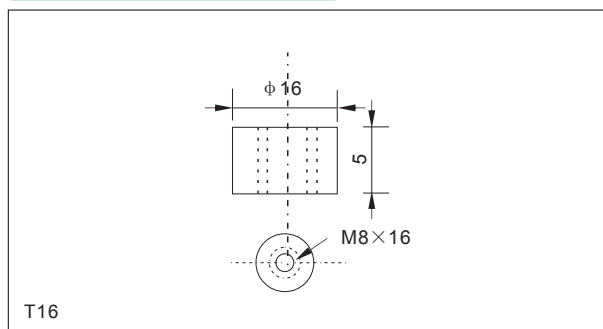
## Specifications

|                               |              |                     |
|-------------------------------|--------------|---------------------|
| Nominal Voltage               |              | 12V                 |
| Rated capacity (10 hour rate) |              | 250Ah               |
| Dimensions                    | Length       | 521±2mm(20.51inch)  |
|                               | Width        | 269±2mm(10.59inch)  |
|                               | Height       | 220±2mm(8.66inch)   |
|                               | Total Height | 224±2mm(8.82inch)   |
| Approx. Weight                |              | 74.5kg(164.2lbs)±3% |

## Outer dimensions (mm)



## Terminal Type (mm)



## Construction

| Component    | Positive plate | Negative plate | Container | Cover | Separator | Electrolyte   | Safety valve | Terminal |
|--------------|----------------|----------------|-----------|-------|-----------|---------------|--------------|----------|
| Raw material | Lead dioxide   | Lead           | ABS       | ABS   | AGM       | Sulfuric acid | Rubber       | Copper   |

## Constant Current Discharge Characteristics Unit:A(25℃,77°F)

| F.V/Time | 15min | 30min | 60min | 2h   | 3h   | 4h   | 5h   | 6h   | 8h   | 10h  | 20h  |
|----------|-------|-------|-------|------|------|------|------|------|------|------|------|
| 9.60V    | 428   | 256   | 158   | 93.2 | 67.1 | 53.6 | 45.8 | 39.8 | 31.5 | 26.0 | 13.8 |
| 9.90V    | 418   | 251   | 155   | 92.6 | 66.7 | 53.3 | 45.5 | 39.6 | 31.3 | 25.9 | 13.7 |
| 10.2V    | 403   | 243   | 151   | 91.8 | 66.3 | 52.9 | 45.2 | 39.3 | 31.1 | 25.8 | 13.7 |
| 10.5V    | 389   | 238   | 147   | 90.4 | 65.8 | 52.5 | 44.9 | 39.0 | 30.9 | 25.7 | 13.6 |
| 10.8V    | 368   | 229   | 142   | 88.1 | 63.8 | 51.0 | 43.5 | 37.8 | 29.9 | 25.5 | 13.5 |

## Constant Power Discharge Characteristics Unit:W(25℃,77°F)

| F.V/Time | 15min | 30min | 60min | 2h   | 3h  | 4h  | 5h  | 6h  | 8h  | 10h | 20h |
|----------|-------|-------|-------|------|-----|-----|-----|-----|-----|-----|-----|
| 9.60V    | 4704  | 2875  | 1797  | 1079 | 789 | 630 | 541 | 470 | 374 | 310 | 165 |
| 9.90V    | 4591  | 2818  | 1770  | 1073 | 785 | 626 | 538 | 468 | 372 | 309 | 165 |
| 10.2V    | 4422  | 2732  | 1725  | 1063 | 779 | 622 | 534 | 464 | 369 | 308 | 164 |
| 10.5V    | 4271  | 2666  | 1671  | 1047 | 774 | 618 | 530 | 461 | 367 | 307 | 163 |
| 10.8V    | 4045  | 2568  | 1617  | 1021 | 750 | 599 | 515 | 447 | 356 | 304 | 162 |

Note: The above characteristics data can be obtained within three charge or discharge cycles.

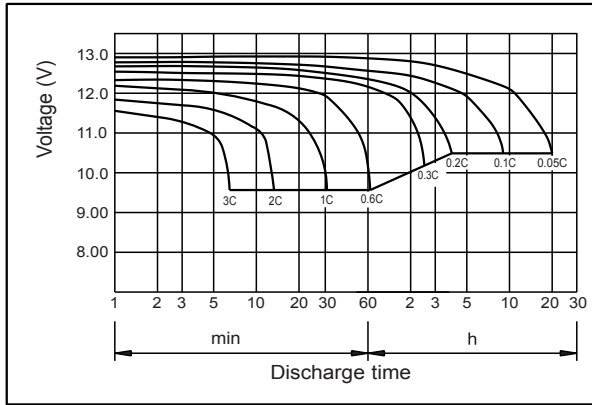


## Characteristics

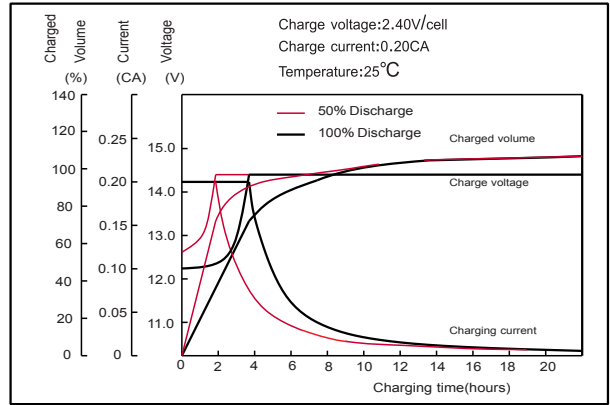
|                                         |             |                                                      |
|-----------------------------------------|-------------|------------------------------------------------------|
| Capacity (25℃)                          | 10HR(10.8V) | 250Ah                                                |
|                                         | 3HR(10.8V)  | 189Ah                                                |
|                                         | 1HR(10.5V)  | 140Ah                                                |
| Terminal type                           |             | T16                                                  |
| Internal resistance (Fully charged,25℃) |             | Approx. 2.6m Ω                                       |
| Capacity affected by temperature (10HR) | 40℃         | 102%                                                 |
|                                         | 25℃         | 100%                                                 |
|                                         | 0℃          | 85%                                                  |
|                                         | -15℃        | 65%                                                  |
| Self-discharge (25℃)                    | 3 months    | Remaining Capacity:91%                               |
|                                         | 6 months    | Remaining Capacity:82%                               |
|                                         | 12 months   | Remaining Capacity:65%                               |
| Nominal operating temperature           |             | 25℃±3℃(77°F±5°F)                                     |
| Operating temperature range             | Discharge   | -15℃~50℃(5°F~122°F)                                  |
|                                         | Charge      | -10℃~50℃(14°F~122°F)                                 |
|                                         | Storage     | -20℃~50℃(-4°F~122°F)                                 |
| Float charging voltage(25℃)             |             | 13.50 to 13.80V<br>Temperature compensation: -18mV/℃ |
| Cyclic charging voltage(25℃)            |             | 14.50 to 15.00V<br>Temperature compensation: -30mV/℃ |
| Maximum charging current                |             | 75A                                                  |
| Maximum discharge current               |             | 1500A(5 sec.)                                        |
| Designed floating life(20℃)             |             | 10years                                              |

# NPD12-250Ah 12V250Ah

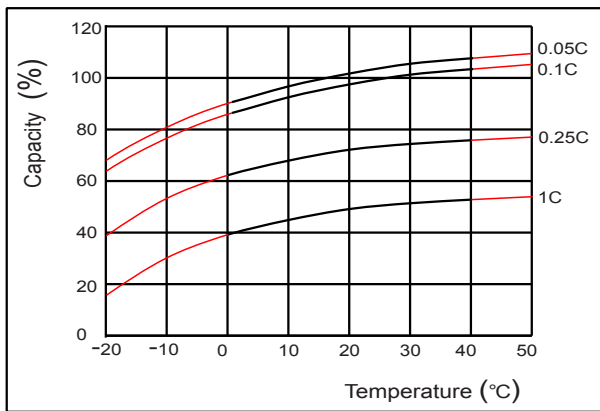
## Discharge characteristics(25°C)



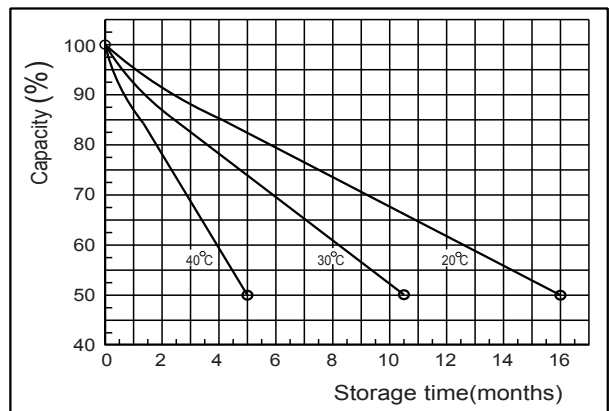
## Charging characteristics (25°C)



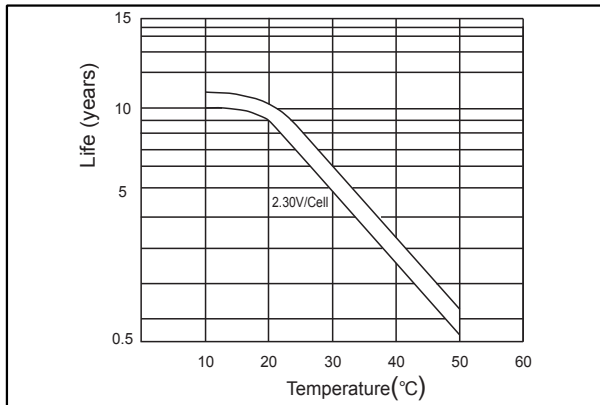
## Temperature effects on Capacity



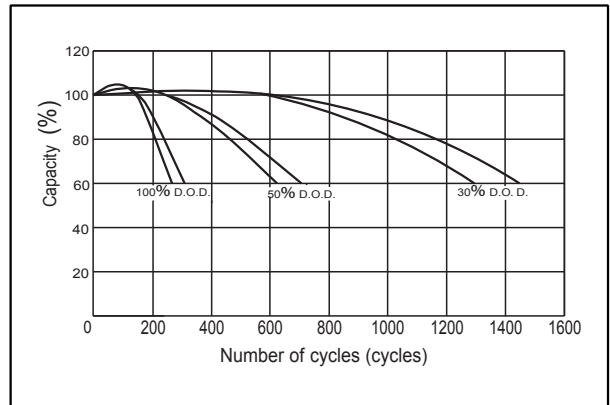
## Self-discharge characteristics



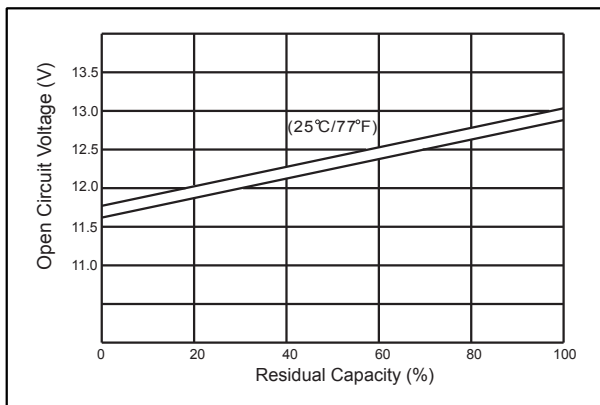
## Floating life on Temperature



## Cycle life on D.O.D (25°C)



## The relationship for OCV and Capacity (25°C)



## The relationship for Charging voltage and Temperature

