

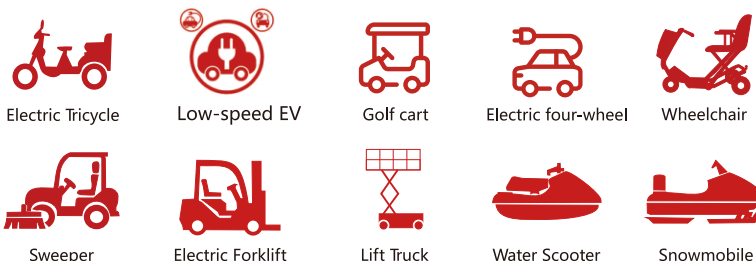
# TNE 12-75 [12V75Ah]



## Product Features

| Deep Cycle Series                                         | 400~600 Cycle Times @100%DOD                      |                                                         |
|-----------------------------------------------------------|---------------------------------------------------|---------------------------------------------------------|
| ↑10%<br>Energy Density<br>Patent negative pasting formula | ↓50%<br>Grid Corrosion<br>Rare-earth patent alloy | 0%<br>Acid stratification<br>Nano silica gel technology |

## Product Applications



## Physical Specification

| Model    | Dimensions (mm/inch) |          |          |              | Weight(kg/lbs)<br>±3% | Terminal | Container                                 |
|----------|----------------------|----------|----------|--------------|-----------------------|----------|-------------------------------------------|
| TNE12-75 | Length               | Width    | Height   | Total Height | 20/44.1               | I3       | ABS UL94-HB<br>(Optional: FR ABS UL94-V0) |
|          | 262/10.3             | 165/6.50 | 170/6.69 | 170/6.69     |                       |          |                                           |

## Product Specifications

| Nominal Voltage | Rated Capacity25°C/77°F                                                                                                | Operating Temp.Range                                                                                                              | Capacity Effected Temp                                                     | Capacity vs Storge Time<br>(25°C/77°F) |
|-----------------|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------|----------------------------------------|
| 12V             | 75Ah 20hr Rate (1.80V/cell)<br>68Ah 10hr Rate (1.75V/cell)<br>64Ah 5hr Rate (1.75V/cell)<br>60Ah 3hr Rate (1.75V/cell) | Discharge:-15°C~50°C (5°F~122°F)<br>Charge:0°C~40°C (32°F~104°F)<br>Storage:-15°C~40°C (5°F~104°F)<br>Optimum:25°C±2°C (77°F±5°F) | 40°C (104°F):106%<br>25°C (77°F):100%<br>0°C (32°F):85%<br>-15°C (5°F):72% | Three months : 90%<br>Six months : 80% |

## Constant Current Discharge (A)@25°C (77°F)

| F.V/Time   | 30min | 45min | 1h   | 2h   | 3h   | 4h    | 5h    | 6h    | 8h   | 10h  | 20h  |
|------------|-------|-------|------|------|------|-------|-------|-------|------|------|------|
| 1.85V/cell | 80.4  | 57.3  | 45.9 | 26.3 | 18.6 | 14.68 | 12.00 | 10.21 | 7.87 | 6.45 | 3.63 |
| 1.80V/cell | 83.3  | 59.0  | 47.3 | 27.2 | 19.3 | 15.11 | 12.47 | 10.59 | 8.10 | 6.61 | 3.75 |
| 1.75V/cell | 85.5  | 61.2  | 49.1 | 28.9 | 20.0 | 15.66 | 12.75 | 10.81 | 8.33 | 6.75 | 3.82 |
| 1.70V/cell | 87.6  | 62.8  | 50.8 | 29.3 | 20.5 | 16.20 | 13.28 | 11.34 | 8.53 | 6.92 | 3.91 |
| 1.67V/cell | 89.4  | 64.8  | 52.6 | 29.7 | 20.7 | 16.35 | 13.58 | 11.40 | 8.72 | 7.04 | 3.94 |
| 1.60V/cell | 91.8  | 66.7  | 53.6 | 30.6 | 21.4 | 16.84 | 13.87 | 11.74 | 8.93 | 7.28 | 3.97 |

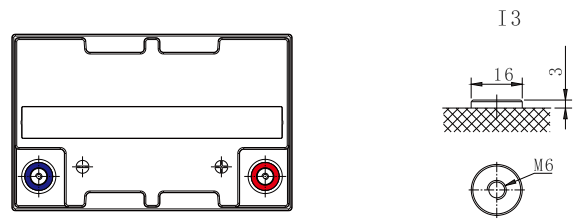
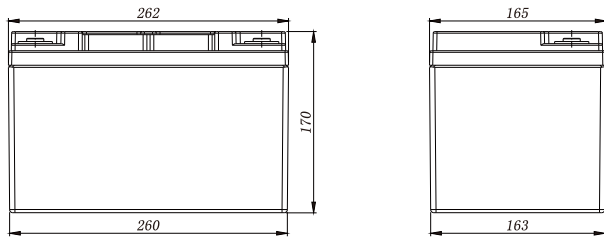
## Constant Power Discharge (W/cell)@25°C (77°F)

| F.V/Time   | 30min | 45min | 1h    | 2h   | 3h   | 4h   | 5h   | 6h   | 8h    | 10h   | 20h  |
|------------|-------|-------|-------|------|------|------|------|------|-------|-------|------|
| 1.85V/cell | 157.0 | 112.7 | 90.8  | 52.3 | 37.3 | 29.6 | 24.2 | 20.6 | 15.95 | 13.08 | 7.38 |
| 1.80V/cell | 162.0 | 115.6 | 93.2  | 53.9 | 38.5 | 30.3 | 25.0 | 21.3 | 16.35 | 13.37 | 7.60 |
| 1.75V/cell | 165.7 | 119.6 | 96.4  | 57.2 | 39.8 | 31.3 | 25.5 | 21.7 | 16.75 | 13.59 | 7.72 |
| 1.70V/cell | 168.9 | 121.9 | 99.2  | 57.7 | 40.5 | 32.1 | 26.4 | 22.6 | 17.06 | 13.87 | 7.86 |
| 1.67V/cell | 171.0 | 124.8 | 102.1 | 58.0 | 40.7 | 32.3 | 26.8 | 22.6 | 17.29 | 14.01 | 7.88 |
| 1.60V/cell | 174.1 | 127.6 | 103.1 | 59.4 | 41.8 | 32.9 | 27.2 | 23.1 | 17.60 | 14.36 | 7.92 |

# TNE 12-75 [12V75Ah]

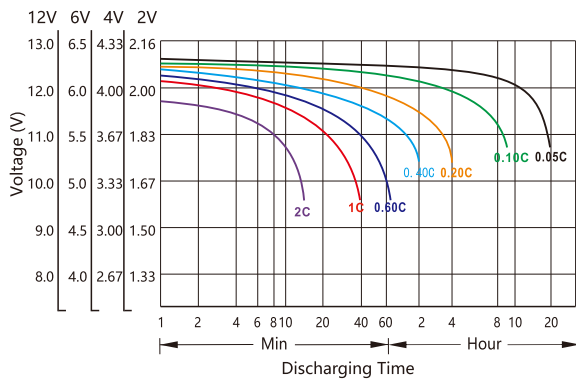


## Battery Dimensions(mm)

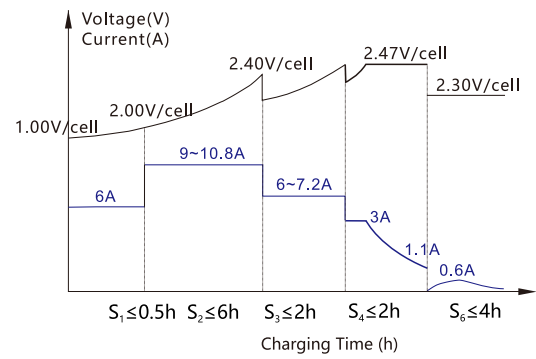


## Electrical Characteristics

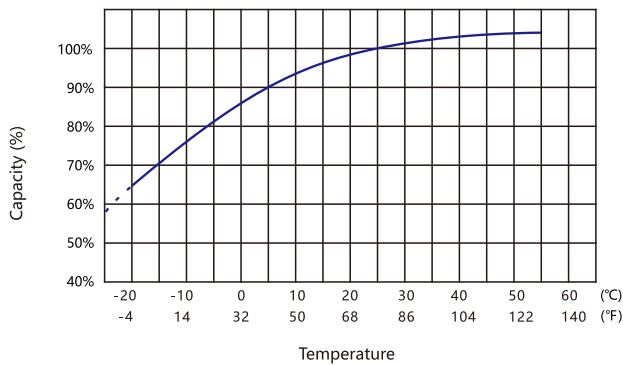
### Discharging Characteristics@25°C(77°F)



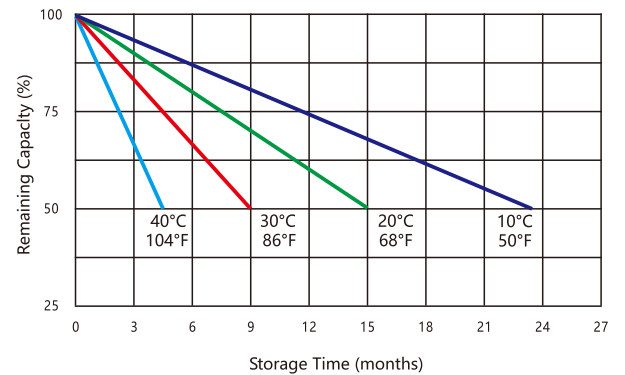
### Charging Characteristics@25°C(77°F)



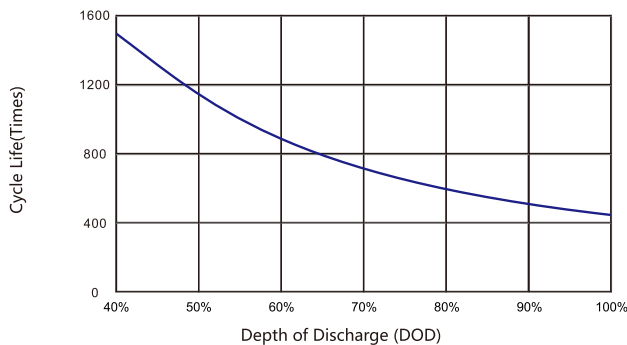
### Capacity vs Temperature



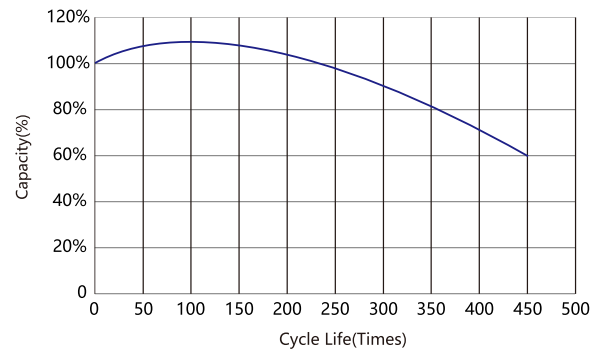
### Self-discharge vs Time



### Cycle Life vs Depth of Discharge@25°C(77°F)



### Cycle Life vs Remaining Capacity@25°C(77°F)



## Usage and Maintenance

| Limited Current                  | Limited Voltage                                       | Floating Voltage                                      |
|----------------------------------|-------------------------------------------------------|-------------------------------------------------------|
| Limited current: $\leq 0.18C_3A$ | 14.6V~14.8V @25°C(77°F)<br>Temp.Coefficient: -24mV/°C | 13.6V~13.8V @25°C(77°F)<br>Temp.Coefficient: -18mV/°C |