

Motive Battery

Energy Storage Battery

Reserve Battery

Motorcycle Battery



## Maintinace Free-High Rate UPS Battery-TNX Series

# TNX12-70W

(12V 67W, 15min@1.67Vpc)

(12V 19.5Ah, C10 @1.80Vpc)

### GENERAL FEATURES

- Oxygen recombination technology: maintenance-free, no need to add water or acid during application
- Optimized plate design to increase power output at 15min backup time, high performance in high-rate discharge
- Wide operating temperature range from -20°C to 55°C, excellent deep discharge recovery capability
- New structure for plate grid, good corrosion resistance and greatly reduced resistance of the battery,
- 12 years design life @25°C, low self-discharge rate



### Application

- UPS ( High Rate )
- Communication Equipments
- Security systems
- Data & Network centers
- Emergency power supply ( EPS )
- Bank and financial system
- Hospitals & Testing laboratories

### Dimension

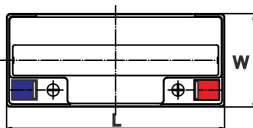
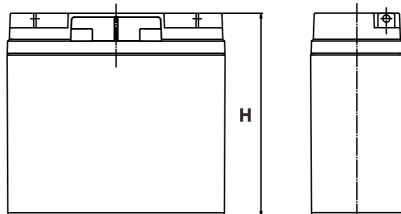
Unit:mm

Length 181.5±2mm / 7.15inch

Width 77±2mm / 3.03inch

Container Height 167.5±3mm / 6.59inch

Total Height 167.5±3mm / 6.59inch



### Terminal

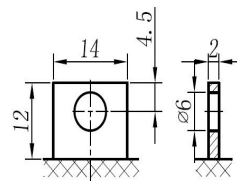
Unit:mm

Terminal Type: L1

### Weight

6kg 13.27lbs

L1



ISO9001 ISO14001 OHSAS18001

This document is subject to change without prior notification

- Motive Battery     Energy Storage Battery  
 Reserve Battery     Motorcycle Battery



## TNX12-70W

### Specifaion

|   |  |   |
|---|--|---|
| <b>Nominal Voltage</b>                  | 12V  |   |
| <b>Rated Power (15min Rate 25°C)</b>    | 67W F.V (1.67V/cell)   |   |
| <b>Rated Capacity (10HR 25°C)</b>       | 19.5Ah (1.80V/cell)  |   |
| <b>Dimension</b>                        | <b>Length</b>  | 181.5±2mm / 7.15inch                                  |
|   | <b>Width</b>   | 77±2mm / 3.03inch                                     |
|   | <b>Container Height</b>  | 167.5±3mm / 6.59inch                                  |
|   | <b>Total Height</b>  | 167.5±3mm / 6.59inch                                  |
| <b>Weight</b>                           | 6kg / 13.27lbs   |   |
| <b>Terminal</b>                         | L1   |   |
| <b>Container Material</b>               | ABS ( Flame-retardant ABS UL94-V0 is optional )  |   |
| <b>Operating Temperature Range</b>      | <b>Discharge</b>   | -20 ~ +50°C   |
|   | <b>Charge</b>  | 0 ~ +40°C   |
|   | <b>Storage</b>   | -15 ~ +40°C   |
| <b>Capacity Effected by Temperature</b> | <b>40°C / 104°F</b>  | 106%  |
|   | <b>25°C / 77°F</b>   | 100%  |
|   | <b>0°C / 32°F</b>  | 86%   |
|   | <b>-10°C / 14°F</b>  | 65%   |
| <b>Charge</b>                           | <b>Float Voltage</b>   | 2.25 -2.27V/cell@25°C, Tem.Coefficient : -3mV/cell/°C |
|   | <b>Equalize Voltage</b>  | 2.40 -2.50V/cell@25°C, Tem.Coefficient : -3mV/cell/°C |
|   | <b>Cycle Voltage</b>   | 2.40 -2.50V/cell@25°C, Tem.Coefficient : -5mV/cell/°C |
| <b>Max. Charging Current</b>            | 5.85A ( 0.3C )   |   |
| <b>Max. Discharge Current (5S)</b>      | 270A   |   |
| <b>Internal Resistance</b>              | 14.5mΩ   |   |
| <b>Self-Discharge</b>                   | <3%, TNX series stored at 25 °C require a supplementary charge every six months, the charging interval would shrink when the ambient temperature went higher |   |

### Discharge Performance

| Constant Current Discharge Table (25°C/77°F) Unit: A |      |       |       |       |       |       |       |      |      |      |      |      |      |       |       |
|--|------|-------|-------|-------|-------|-------|-------|------|------|------|------|------|------|-------|-------|
| F.V/Time   | 5min | 10min | 15min | 20min | 30min | 45min | 1h    | 2h   | 3h   | 4h   | 5h   | 6h   | 8h   | 10h   | 20h   |
| 1.85V/cell   | 57.2 | 37.9  | 31.3  | 26.2  | 19.8  | 14.6  | 11.72 | 6.73 | 4.89 | 3.93 | 3.31 | 2.84 | 2.25 | 1.868 | 1.039 |
| 1.80V/cell   | 62.8 | 41.7  | 33.9  | 28.3  | 20.8  | 15.4  | 12.16 | 7.08 | 5.20 | 4.15 | 3.46 | 2.99 | 2.34 | 1.946 | 1.050 |
| 1.75V/cell   | 67.8 | 45.4  | 36.0  | 29.9  | 21.8  | 15.9  | 12.60 | 7.29 | 5.34 | 4.24 | 3.55 | 3.05 | 2.39 | 1.968 | 1.061 |
| 1.70V/cell   | 71.6 | 47.9  | 37.8  | 31.2  | 22.6  | 16.5  | 13.05 | 7.51 | 5.48 | 4.33 | 3.63 | 3.11 | 2.43 | 1.998 | 1.073 |
| 1.67V/cell   | 75.4 | 50.2  | 39.1  | 32.1  | 23.3  | 16.9  | 13.38 | 7.68 | 5.54 | 4.40 | 3.67 | 3.17 | 2.47 | 2.023 | 1.084 |
| 1.60V/cell   | 80.2 | 52.1  | 40.3  | 32.7  | 23.6  | 17.1  | 13.55 | 7.80 | 5.63 | 4.46 | 3.73 | 3.20 | 2.48 | 2.034 | 1.095 |

| Constant Power Discharge Table (25°C/77°F) Unit: W |       |       |       |       |       |       |       |       |       |      |      |      |      |       |       |
|--|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|------|------|------|-------|-------|
| F.V/Time   | 5min  | 10min | 15min | 20min | 30min | 45min | 1h    | 2h    | 3h    | 4h   | 5h   | 6h   | 8h   | 10h   | 20h   |
| 1.85V/cell   | 103.7 | 68.9  | 57.1  | 48.0  | 36.5  | 27.2  | 21.98 | 12.70 | 9.27  | 7.47 | 6.30 | 5.41 | 4.31 | 3.589 | 2.000 |
| 1.80V/cell   | 110.3 | 74.2  | 61.0  | 51.4  | 38.2  | 28.4  | 22.66 | 13.26 | 9.78  | 7.85 | 6.55 | 5.68 | 4.50 | 3.734 | 2.018 |
| 1.75V/cell   | 117.9 | 79.9  | 64.0  | 53.8  | 39.6  | 29.3  | 23.38 | 13.60 | 10.02 | 7.99 | 6.70 | 5.79 | 4.57 | 3.772 | 2.037 |
| 1.70V/cell   | 122.8 | 83.2  | 66.6  | 55.7  | 40.9  | 30.1  | 24.12 | 13.98 | 10.25 | 8.14 | 6.84 | 5.89 | 4.64 | 3.827 | 2.056 |
| 1.67V/cell   | 127.4 | 85.9  | 67.4  | 56.9  | 41.9  | 30.7  | 24.60 | 14.25 | 10.32 | 8.24 | 6.90 | 5.99 | 4.69 | 3.869 | 2.075 |
| 1.60V/cell   | 133.1 | 87.8  | 68.9  | 56.9  | 41.8  | 30.8  | 24.74 | 14.42 | 10.44 | 8.32 | 6.98 | 6.02 | 4.71 | 3.884 | 2.093 |

动力电池

储能电池

备用电池

摩托车电池



## 阀控免维护-高功率UPS电池-TNX系列

# TNX12-70W

(12V 67W, 15min@1.67Vpc)

(12V 19.5Ah, C10 @1.80Vpc)

### 产品特点：

- 氧复合技术: 阀控式免维护, 使用期间无需加水或加酸
- 极板优化处理, 提升15分钟放电性能, 高倍率放电性能优异
- 在-20°C到55°C温度区间内均可正常使用, 深放电恢复能力出色
- 隔板特色设计, 抗腐蚀性能佳, 同时大幅度降低电池内阻
- 12年设计寿命(25°C), 自放电率低



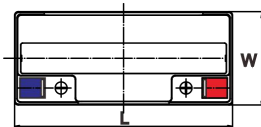
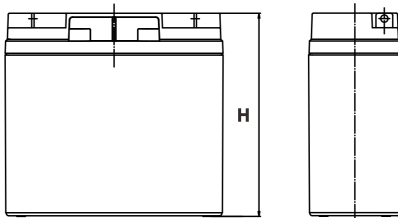
### 产品应用

- 不间断电源(高功率)
- 通讯设备
- 安全系统
- 数据网络中心
- 应急电源系统
- 银行资金系统
- 医疗测试设备

### 尺寸

单个尺寸

|    |                      |
|----|----------------------|
| 长  | 181.5±2mm / 7.15inch |
| 宽  | 77±2mm / 3.03inch    |
| 高  | 167.5±3mm / 6.59inch |
| 总高 | 167.5±3mm / 6.59inch |



### 端子类型

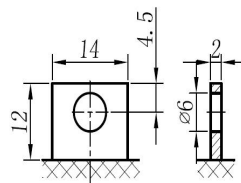
单位:mm

端子类型 L1

### 重量

6kg 13.27lbs

L1



ISO9001 ISO14001 OHSAS18001

内容如有改动, 恕不另行通知

动力电池 储能电池 备用电池 摩托车电池

## TNX12-70W

### 规格书

|                 |   |   |
|-----------------|---|---|
| 额定电压            | 12V   |   |
| 15分钟放电功率        | 67W F.V (1.67V/cell)                              |   |
| 额定容量 (10小时)     | 19.5Ah (1.80V/cell)                               |   |
| 尺寸              | 长   | 181.5±2mm                               |
|                 | 宽   | 77±2mm                                  |
|                 | 高   | 167.5±3mm                               |
|                 | 总高  | 167.5±3mm                               |
| 重量              | 6kg   |   |
| 端子              | L1  |   |
| 壳体材料            | ABS (阻燃ABS壳体可选)                                   |   |
| 使用温度范围          | 放电  | -20 ~ +50°C                             |
|                 | 充电  | 0 ~ +40°C                               |
|                 | 储存  | -15 ~ +40°C                             |
| 不同温度下<br>电池容量系数 | 40°C / 104°F                                      | 106%                                    |
|                 | 25°C / 77°F                                       | 100%                                    |
|                 | 0°C / 32°F  | 86%                                     |
|                 | -10°C / 14°F                                      | 65%                                     |
| 充电              | 浮充电压  | 2.25 -2.27V/单格@25°C, 温度补偿系数: -3mV/单格/°C |
|                 | 均充电压  | 2.40 -2.50V/单格@25°C, 温度补偿系数: -3mV/单格/°C |
|                 | 循环使用电压  | 2.40 -2.50V/单格@25°C, 温度补偿系数: -5mV/单格/°C |
| 最大充电电流          | 5.85A (0.3C)                                      |   |
| 最大放电电流 (5S)     | 270A  |   |
| 电阻              | 14.5mΩ  |   |
| 自放电             | <3%, TNX系列储存在25°C时需每6个月进行一次补充充电, 环境温度更高时则充电间隔时间越短 |   |

### 放电性能

| 恒电流放电表 (25°C/77°F) 单位: A |      |       |       |       |       |       |       |      |      |      |      |      |      |       |       |
|--------------------------|------|-------|-------|-------|-------|-------|-------|------|------|------|------|------|------|-------|-------|
| F.V/Time                 | 5min | 10min | 15min | 20min | 30min | 45min | 1h    | 2h   | 3h   | 4h   | 5h   | 6h   | 8h   | 10h   | 20h   |
| 1.85V/cell               | 57.2 | 37.9  | 31.3  | 26.2  | 19.8  | 14.6  | 11.72 | 6.73 | 4.89 | 3.93 | 3.31 | 2.84 | 2.25 | 1.868 | 1.039 |
| 1.80V/cell               | 62.8 | 41.7  | 33.9  | 28.3  | 20.8  | 15.4  | 12.16 | 7.08 | 5.20 | 4.15 | 3.46 | 2.99 | 2.34 | 1.946 | 1.050 |
| 1.75V/cell               | 67.8 | 45.4  | 36.0  | 29.9  | 21.8  | 15.9  | 12.60 | 7.29 | 5.34 | 4.24 | 3.55 | 3.05 | 2.39 | 1.968 | 1.061 |
| 1.70V/cell               | 71.6 | 47.9  | 37.8  | 31.2  | 22.6  | 16.5  | 13.05 | 7.51 | 5.48 | 4.33 | 3.63 | 3.11 | 2.43 | 1.998 | 1.073 |
| 1.67V/cell               | 75.4 | 50.2  | 39.1  | 32.1  | 23.3  | 16.9  | 13.38 | 7.68 | 5.54 | 4.40 | 3.67 | 3.17 | 2.47 | 2.023 | 1.084 |
| 1.60V/cell               | 80.2 | 52.1  | 40.3  | 32.7  | 23.6  | 17.1  | 13.55 | 7.80 | 5.63 | 4.46 | 3.73 | 3.20 | 2.48 | 2.034 | 1.095 |

| 恒功率放电表 (25°C/77°F) 单位: W |       |       |       |       |       |       |       |       |       |      |      |      |      |       |       |
|--------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|------|------|------|-------|-------|
| F.V/Time                 | 5min  | 10min | 15min | 20min | 30min | 45min | 1h    | 2h    | 3h    | 4h   | 5h   | 6h   | 8h   | 10h   | 20h   |
| 1.85V/cell               | 103.7 | 68.9  | 57.1  | 48.0  | 36.5  | 27.2  | 21.98 | 12.70 | 9.27  | 7.47 | 6.30 | 5.41 | 4.31 | 3.589 | 2.000 |
| 1.80V/cell               | 110.3 | 74.2  | 61.0  | 51.4  | 38.2  | 28.4  | 22.66 | 13.26 | 9.78  | 7.85 | 6.55 | 5.68 | 4.50 | 3.734 | 2.018 |
| 1.75V/cell               | 117.9 | 79.9  | 64.0  | 53.8  | 39.6  | 29.3  | 23.38 | 13.60 | 10.02 | 7.99 | 6.70 | 5.79 | 4.57 | 3.772 | 2.037 |
| 1.70V/cell               | 122.8 | 83.2  | 66.6  | 55.7  | 40.9  | 30.1  | 24.12 | 13.98 | 10.25 | 8.14 | 6.84 | 5.89 | 4.64 | 3.827 | 2.056 |
| 1.67V/cell               | 127.4 | 85.9  | 67.4  | 56.9  | 41.9  | 30.7  | 24.60 | 14.25 | 10.32 | 8.24 | 6.90 | 5.99 | 4.69 | 3.869 | 2.075 |
| 1.60V/cell               | 133.1 | 87.8  | 68.9  | 56.9  | 41.8  | 30.8  | 24.74 | 14.42 | 10.44 | 8.32 | 6.98 | 6.02 | 4.71 | 3.884 | 2.093 |