

Motive Battery

Energy Storage Battery

Reserve Battery

Motorcycle Battery



## Energy Storage Battery-AGM-GEL Technology-TNG Series

# TNG12-150

## (12V 150Ah)

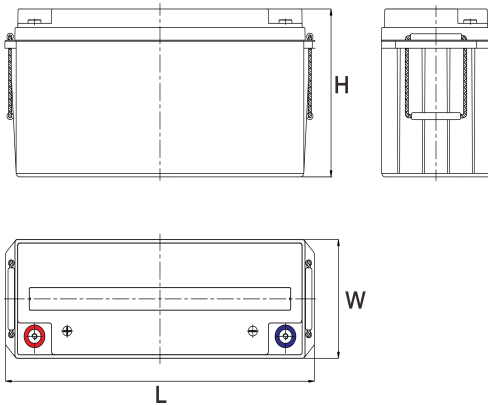
### GENERAL FEATURES

- ◆ Oxygen recombination technology: maintenance-free, no need to add water or acid
- ◆ The patent grid alloy: less gassing, low self-discharge, excellent corrosion resistance
- ◆ Special paste formula: additives for deep discharge, long cycle life
- ◆ High quality AGM separator: extend cycle life and prevent micro short circuit
- ◆ The patent Nano silica electrolytes, extend cycle life and improve the deep discharge performance
- ◆ ABS container: increase the strength of battery (Flame-retardant ABS UL94-V0 is optional)

### Dimension

Unit:mm

|                  |                     |
|------------------|---------------------|
| Length           | 482±2mm / 18.98inch |
| Width            | 170±2mm / 6.69inch  |
| Container Height | 240±3mm / 9.45inch  |
| Total Height     | 240±3mm / 9.45inch  |



### Application

- ◆ Renewable energy system
- ◆ Hybrid solar power system
- ◆ Uninterrupted Power Supply (UPS)
- ◆ Communications and electric equipment
- ◆ Emergency lighting equipment
- ◆ Fire alarm and security systems
- ◆ Robots, control equipment, and other factory automation equipment
- ◆ Emergency power supply (EPS)
- ◆ Various power toy and hobby equipment
- ◆ Lighting equipment

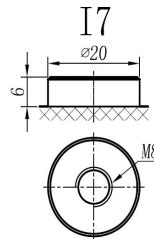
### Terminal

Unit:mm

Terminal Type: I7

### Weight

48kg 105.82lbs



This document is subject to change without prior notification

Motive Battery

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## TNG12-150

### Specificaion

|                                         |                                                                                                                                                             |                                                       |
|-----------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------|
| <b>Nominal Voltage</b>                  | 12V                                                                                                                                                         |                                                       |
| <b>Rated Capacity(25°C)</b>             | 159Ah                                                                                                                                                       | 20hr Rate(1.80V/cell)                                 |
|                                         | 150Ah                                                                                                                                                       | 10hr Rate(1.80V/cell)                                 |
|                                         | 129Ah                                                                                                                                                       | 5hr Rate(1.75V/cell)                                  |
|                                         | 120Ah                                                                                                                                                       | 3hr Rate(1.70V/cell)                                  |
|                                         | 91Ah                                                                                                                                                        | 1hr Rate(1.60V/cell)                                  |
| <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 Voltage</b>                   | <b>Float Voltage</b>                                                                                                                                        | 2.25 -2.30V/cell@25°C, Tem. Coefficient: -3mV/cell/°C |
|                                         | <b>Equalize Voltage</b>                                                                                                                                     | 2.35 -2.40V/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>             | 45A (0.3C)                                                                                                                                                  |                                                       |
| <b>Max. Discharge Current (5S)</b>      | 1500A                                                                                                                                                       |                                                       |
| <b>Internal Resistance</b>              | 3.5mΩ                                                                                                                                                       |                                                       |
| <b>Self Discharge</b>                   | <3%, TN 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 | 251.8 | 198.0 | 168.3 | 140.9 | 111.9 | 85.9  | 70.68 | 44.99 | 35.59 | 29.09 | 23.49 | 20.40 | 16.60 | 14.21 | 7.892 |
| 1.80V/cell | 338.0 | 253.0 | 203.5 | 166.5 | 132.0 | 99.9  | 79.18 | 49.19 | 38.29 | 31.09 | 25.19 | 21.90 | 17.60 | 15.02 | 7.964 |
| 1.75V/cell | 381.1 | 278.0 | 222.2 | 179.1 | 137.1 | 103.6 | 82.88 | 50.99 | 38.99 | 31.79 | 25.79 | 22.50 | 17.90 | 15.12 | 8.046 |
| 1.70V/cell | 419.8 | 303.0 | 237.2 | 188.3 | 142.7 | 107.8 | 85.48 | 52.99 | 40.09 | 32.59 | 26.49 | 23.00 | 18.10 | 15.32 | 8.199 |
| 1.65V/cell | 462.8 | 327.0 | 252.3 | 199.9 | 150.6 | 110.5 | 88.38 | 54.49 | 41.79 | 33.69 | 27.19 | 23.50 | 18.40 | 15.62 | 8.301 |
| 1.60V/cell | /     | 355.0 | 269.8 | 213.0 | 158.9 | 115.2 | 91.48 | 56.29 | 43.09 | 34.79 | 28.09 | 24.00 | 18.60 | 15.82 | 8.352 |

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 | 460.5 | 365.7 | 314.2 | 265.5 | 213.4 | 162.8 | 134.49 | 86.27  | 68.43 | 56.10 | 45.36 | 39.74 | 32.41 | 28.03 | 15.300 |
| 1.80V/cell | 611.5 | 461.8 | 374.5 | 309.2 | 247.9 | 188.0 | 149.87 | 93.47  | 73.26 | 59.55 | 48.41 | 42.51 | 34.29 | 29.63 | 15.400 |
| 1.75V/cell | 674.8 | 499.3 | 404.1 | 329.4 | 255.3 | 193.2 | 156.08 | 96.63  | 74.34 | 60.64 | 49.60 | 43.50 | 34.78 | 29.93 | 15.600 |
| 1.70V/cell | 722.5 | 531.9 | 425.4 | 343.6 | 264.2 | 200.1 | 160.42 | 100.27 | 76.22 | 62.12 | 50.68 | 44.40 | 35.28 | 30.23 | 15.800 |
| 1.65V/cell | 785.4 | 568.8 | 448.8 | 362.3 | 276.4 | 203.3 | 164.66 | 102.44 | 79.08 | 64.09 | 51.96 | 45.19 | 35.77 | 30.73 | 16.000 |
| 1.60V/cell | /     | 603.4 | 472.0 | 381.8 | 289.8 | 210.7 | 169.59 | 105.40 | 81.15 | 65.86 | 53.44 | 46.08 | 35.97 | 31.03 | 16.100 |

动力电池

储能电池

备用电池

摩托车电池



### 储能电池-AGM-凝胶技术-TNG系列

# TNG12-150

## (12V 150Ah)

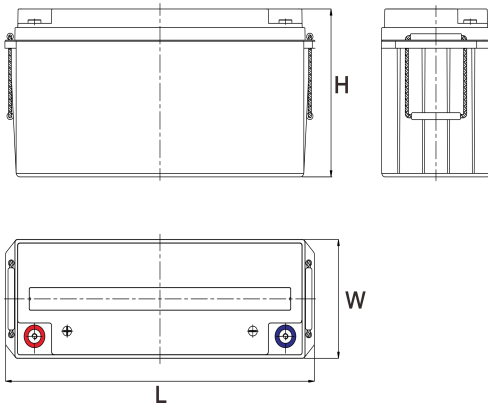
### 产品特点

- ◆ 阀控式免维护设计，寿命期间无需加水或加酸
- ◆ 专利稀土合金板栅，减少气体产生，自放电率低，抗腐蚀能力出众
- ◆ 特制组成配方，添加特殊试剂，增进深放电性能，延长循环寿命
- ◆ 高质量AGM隔板：防止微短路，延长循环寿命
- ◆ 纳米硅胶专利电解质，延长循环寿命，增进深放电性能
- ◆ ABS壳盖：电池外壳强度高（阻燃壳体UL94-V0可选）

### 尺寸

单个尺寸

|    |                     |
|----|---------------------|
| 长  | 482±2mm / 18.98inch |
| 宽  | 170±2mm / 6.69inch  |
| 高  | 240±3mm / 9.45inch  |
| 总高 | 240±3mm / 9.45inch  |



### 产品应用

- ◆ 可再生能源系统
- ◆ 太阳能混合动力系统
- ◆ 不间断电源 (UPS)
- ◆ 通信及电力设备
- ◆ 应急照明系统
- ◆ 安防及火灾报警系统
- ◆ 机械自动化控制设备
- ◆ 应急电源 (EPS)
- ◆ 各式电动玩具及娱乐设施
- ◆ 照明设备

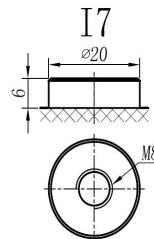
### 端子类型

单位:mm

端子类型 I7

### 重量

48kg 105.82lbs



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



## 规格书

## TNG12-150

|                 |                                                   |                                         |
|-----------------|---------------------------------------------------|-----------------------------------------|
| 额定电压            | 12V                                               |                                         |
| 容量(25°C)        | 159Ah                                             | 20hr Rate(1.80V/cell)                   |
|                 | 150Ah                                             | 10hr Rate(1.80V/cell)                   |
|                 | 129Ah                                             | 5hr Rate(1.75V/cell)                    |
|                 | 120Ah                                             | 3hr Rate(1.70V/cell)                    |
|                 | 91Ah                                              | 1hr Rate(1.60V/cell)                    |
| 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                             |
| 不同温度下电<br>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%                                     |
| 充电电压            | 浮充                                                | 2.25 -2.30V/单格@25°C, 温度补偿系数: -3mV/单格/°C |
|                 | 均充                                                | 2.35 -2.40V/单格@25°C, 温度补偿系数: -3mV/单格/°C |
|                 | 循环使用                                              | 2.40 -2.50V/单格@25°C, 温度补偿系数: -5mV/单格/°C |
| 最大充电电流          | 45A (0.3C)                                        |                                         |
| 最大放电电流(5S)      | 1500A                                             |                                         |
| 电阻              | 3.5mΩ                                             |                                         |
| 自放电             | <3%, TN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               | 251.8 | 198.0 | 168.3 | 140.9 | 111.9 | 85.9  | 70.68 | 44.99 | 35.59 | 29.09 | 23.49 | 20.40 | 16.60 | 14.21 | 7.892 |
| 1.80V/cell               | 338.0 | 253.0 | 203.5 | 166.5 | 132.0 | 99.9  | 79.18 | 49.19 | 38.29 | 31.09 | 25.19 | 21.90 | 17.60 | 15.02 | 7.964 |
| 1.75V/cell               | 381.1 | 278.0 | 222.2 | 179.1 | 137.1 | 103.6 | 82.88 | 50.99 | 38.99 | 31.79 | 25.79 | 22.50 | 17.90 | 15.12 | 8.046 |
| 1.70V/cell               | 419.8 | 303.0 | 237.2 | 188.3 | 142.7 | 107.8 | 85.48 | 52.99 | 40.09 | 32.59 | 26.49 | 23.00 | 18.10 | 15.32 | 8.199 |
| 1.65V/cell               | 462.8 | 327.0 | 252.3 | 199.9 | 150.6 | 110.5 | 88.38 | 54.49 | 41.79 | 33.69 | 27.19 | 23.50 | 18.40 | 15.62 | 8.301 |
| 1.60V/cell               | /     | 355.0 | 269.8 | 213.0 | 158.9 | 115.2 | 91.48 | 56.29 | 43.09 | 34.79 | 28.09 | 24.00 | 18.60 | 15.82 | 8.352 |

| 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               | 460.5 | 365.7 | 314.2 | 265.5 | 213.4 | 162.8 | 134.49 | 86.27  | 68.43 | 56.10 | 45.36 | 39.74 | 32.41 | 28.03 | 15.300 |
| 1.80V/cell               | 611.5 | 461.8 | 374.5 | 309.2 | 247.9 | 188.0 | 149.87 | 93.47  | 73.26 | 59.55 | 48.41 | 42.51 | 34.29 | 29.63 | 15.400 |
| 1.75V/cell               | 674.8 | 499.3 | 404.1 | 329.4 | 255.3 | 193.2 | 156.08 | 96.63  | 74.34 | 60.64 | 49.60 | 43.50 | 34.78 | 29.93 | 15.600 |
| 1.70V/cell               | 722.5 | 531.9 | 425.4 | 343.6 | 264.2 | 200.1 | 160.42 | 100.27 | 76.22 | 62.12 | 50.68 | 44.40 | 35.28 | 30.23 | 15.800 |
| 1.65V/cell               | 785.4 | 568.8 | 448.8 | 362.3 | 276.4 | 203.3 | 164.66 | 102.44 | 79.08 | 64.09 | 51.96 | 45.19 | 35.77 | 30.73 | 16.000 |
| 1.60V/cell               | /     | 603.4 | 472.0 | 381.8 | 289.8 | 210.7 | 169.59 | 105.40 | 81.15 | 65.86 | 53.44 | 46.08 | 35.97 | 31.03 | 16.100 |