

Motive Battery

Energy Storage Battery

Reserve Battery

Motorcycle Battery



Industry Battery-General Purpose AGM Battery-TN Series

TN12-24H

(12V 24Ah)

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
- ◆ Design life is 3~5 years at 25°C under standby application, deep discharge recoverability
- ◆ High quality AGM separator: extend cycle life and prevent micro short circuit
- ◆ ABS container: increase the strength of battery (Flame-retardant ABS UL94-V0 is optional)

Dimension

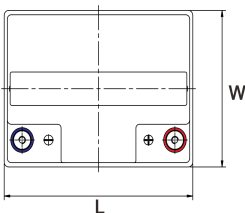
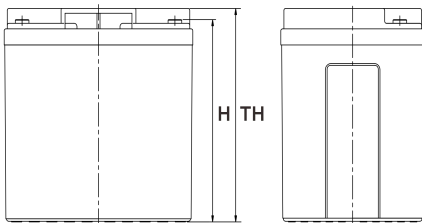
Unit:mm

Length 166±2mm / 6.54inch

Width 126.5±2mm / 4.98inch

Container Height 172.5±3mm / 6.79inch

Total Height 172.5±3mm / 6.79inch



Application

- ◆ Uninterrupted Power Supply (UPS)
- ◆ Communications and electric equipment
- ◆ Emergency lighting equipment
- ◆ Fire alarm and security system
- ◆ Control equipment, and other factory automation equipment
- ◆ Emergency power supply (EPS)
- ◆ Portable VTR/TV, radio and so on
- ◆ Power tools, lawn mowers, vacuum cleaners
- ◆ Cameras and photographic equipment
- ◆ Portable measuring equipment
- ◆ Portable telephone sets
- ◆ Various power toys and hobby equipment
- ◆ Lighting equipment

Terminal

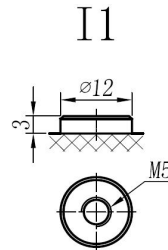
Unit:mm

Terminal Type: I1

Weight

7.6kg

16.75lbs



This document is subject to change without prior notification

Motive Battery

Energy Storage Battery

Reserve Battery

Motorcycle Battery



TN12-24H

Specification

| | | |
|---|---|---|
| Nominal Voltage | 12V | |
| | 24Ah | 20hr Rate (1.80V/cell) |
| | 22Ah | 10hr Rate (1.80V/cell) |
| Rated Capacity(25°C) | 21Ah | 5hr Rate (1.75V/cell) |
| | 19Ah | 3hr Rate (1.70V/cell) |
| | 15Ah | 1hr Rate (1.60V/cell) |
| Container Material | ABS (Flame-retardant ABS UL94-V0 is optional) | |
| Operating Temperature Range | Discharge | -20 ~ +50°C |
| | Charge | 0 ~ +40°C |
| | Storage | -15 ~ +40°C |
| Capacity Effected by Temperature | 40°C / 104°F | 106% |
| | 25°C / 77°F | 100% |
| | 0°C / 32°F | 86% |
| | -10°C / 14°F | 65% |
| Charge | Float Voltage | 2.23 -2.27V/cell@25°C, Tem.Coefficient : -3mV/cell/°C |
| | Equalize Voltage | 2.35 -2.40V/cell@25°C, Tem.Coefficient : -3mV/cell/°C |
| | Cycle Voltage | 2.40 -2.50V/cell@25°C, Tem.Coefficient : -5mV/cell/°C |
| Max. Charging Current | 7.2A (0.3C) | |
| Max. Discharge Current (5S) | 360A | |
| Internal Resistance | 15mΩ | |
| Self-Discharge | <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 | 45.7 | 35.1 | 29.1 | 25.1 | 19.4 | 14.5 | 12.25 | 7.25 | 5.66 | 4.61 | 3.76 | 3.24 | 2.62 | 2.162 | 1.191 |
| 1.80V/cell | 61.4 | 44.8 | 35.1 | 29.7 | 22.9 | 17.0 | 13.72 | 7.91 | 6.10 | 4.92 | 4.03 | 3.48 | 2.78 | 2.232 | 1.201 |
| 1.75V/cell | 69.3 | 49.3 | 38.4 | 32.0 | 23.8 | 17.6 | 14.35 | 8.20 | 6.21 | 5.03 | 4.14 | 3.58 | 2.83 | 2.292 | 1.211 |
| 1.70V/cell | 76.3 | 53.8 | 41.0 | 33.6 | 24.8 | 18.3 | 14.81 | 8.40 | 6.38 | 5.17 | 4.24 | 3.65 | 2.87 | 2.342 | 1.231 |
| 1.67V/cell | 84.1 | 58.1 | 43.6 | 35.7 | 26.1 | 18.7 | 15.15 | 8.53 | 6.66 | 5.34 | 4.36 | 3.73 | 2.91 | 2.392 | 1.251 |
| 1.60V/cell | 92.7 | 63.0 | 46.6 | 38.0 | 27.6 | 19.5 | 15.30 | 8.89 | 6.86 | 5.51 | 4.51 | 3.81 | 2.94 | 2.412 | 1.261 |

| 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 | 83.7 | 64.9 | 54.4 | 47.4 | 37.0 | 27.5 | 23.32 | 13.91 | 10.91 | 8.89 | 7.27 | 6.33 | 5.13 | 4.284 | 2.352 |
| 1.80V/cell | 111.1 | 82.0 | 64.8 | 55.3 | 43.0 | 31.8 | 25.93 | 15.02 | 11.61 | 9.44 | 7.77 | 6.76 | 5.42 | 4.414 | 2.372 |
| 1.75V/cell | 122.6 | 88.6 | 69.9 | 58.9 | 44.3 | 32.6 | 27.03 | 15.52 | 11.81 | 9.61 | 7.94 | 6.92 | 5.50 | 4.525 | 2.392 |
| 1.70V/cell | 131.2 | 94.4 | 73.5 | 61.4 | 45.9 | 33.8 | 27.83 | 15.92 | 12.11 | 9.85 | 8.13 | 7.05 | 5.57 | 4.615 | 2.442 |
| 1.67V/cell | 142.6 | 100.9 | 77.6 | 64.8 | 48.0 | 34.4 | 28.23 | 16.02 | 12.61 | 10.11 | 8.33 | 7.19 | 5.65 | 4.705 | 2.472 |
| 1.60V/cell | 153.8 | 107.1 | 81.6 | 68.2 | 50.4 | 35.6 | 28.33 | 16.62 | 12.91 | 10.41 | 8.57 | 7.32 | 5.69 | 4.745 | 2.482 |

动力电池

储能电池

备用电池

摩托车电池



阀控式免维护铅酸蓄电池 - 通用型

TN12-24H

(12V 24Ah)

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
- ◆ 在25°C下，产品浮充设计寿命为3~5年，优良的深放电恢复能力
- ◆ 高质量AGM隔板：防止微短路，延长循环寿命
- ◆ ABS壳盖：电池外壳强度高（阻燃壳体UL94-V0可选）



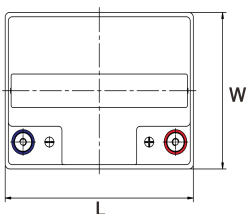
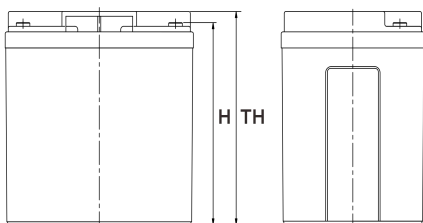
产品应用

- ◆ 不间断电源(UPS)
- ◆ 通信和电力设备
- ◆ 紧急照明设备
- ◆ 火灾报警及安防系统
- ◆ 控制设备及其他机械自动化设备
- ◆ 应急电源系统
- ◆ 便携式音频设备
- ◆ 电动工具，割草机，真空吸尘器
- ◆ 照相设备
- ◆ 便携式测量工具
- ◆ 便携式通话设备
- ◆ 各式电动玩具及娱乐设施
- ◆ 照明设备

尺寸

单个尺寸

| | |
|----|-----------|
| 长 | 166±2mm |
| 宽 | 126.5±2mm |
| 高 | 172.5±3mm |
| 总高 | 172.5±3mm |



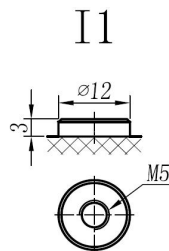
端子类型

单位:mm

端子类型 I1

重量

7.6kg 16.75lbs



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



TN12-24H

规格书

| | | |
|-----------------|---|---|
| 额定电压 | 12V | |
| 容量(25°C) | 24Ah | 20hr Rate (1.80V/cell) |
| | 22Ah | 10hr Rate (1.80V/cell) |
| | 21Ah | 5hr Rate (1.75V/cell) |
| | 19Ah | 3hr Rate (1.70V/cell) |
| | 15Ah | 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 | 2.23 -2.27V/单格@25°C, 温度补偿系数: -3mV/单格/°C |
| | 均充电压 | 2.35 -2.40V/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 | 7.2A (0.3C) | |
| 最大放电电流 (5S) | 360A | |
| 电阻 | 15mΩ | |
| 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 | 45.7 | 35.1 | 29.1 | 25.1 | 19.4 | 14.5 | 12.25 | 7.25 | 5.66 | 4.61 | 3.76 | 3.24 | 2.62 | 2.162 | 1.191 |
| 1.80V/cell | 61.4 | 44.8 | 35.1 | 29.7 | 22.9 | 17.0 | 13.72 | 7.91 | 6.10 | 4.92 | 4.03 | 3.48 | 2.78 | 2.232 | 1.201 |
| 1.75V/cell | 69.3 | 49.3 | 38.4 | 32.0 | 23.8 | 17.6 | 14.35 | 8.20 | 6.21 | 5.03 | 4.14 | 3.58 | 2.83 | 2.292 | 1.211 |
| 1.70V/cell | 76.3 | 53.8 | 41.0 | 33.6 | 24.8 | 18.3 | 14.81 | 8.40 | 6.38 | 5.17 | 4.24 | 3.65 | 2.87 | 2.342 | 1.231 |
| 1.67V/cell | 84.1 | 58.1 | 43.6 | 35.7 | 26.1 | 18.7 | 15.15 | 8.53 | 6.66 | 5.34 | 4.36 | 3.73 | 2.91 | 2.392 | 1.251 |
| 1.60V/cell | 92.7 | 63.0 | 46.6 | 38.0 | 27.6 | 19.5 | 15.30 | 8.89 | 6.86 | 5.51 | 4.51 | 3.81 | 2.94 | 2.412 | 1.261 |

| 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 | 83.7 | 64.9 | 54.4 | 47.4 | 37.0 | 27.5 | 23.32 | 13.91 | 10.91 | 8.89 | 7.27 | 6.33 | 5.13 | 4.284 | 2.352 |
| 1.80V/cell | 111.1 | 82.0 | 64.8 | 55.3 | 43.0 | 31.8 | 25.93 | 15.02 | 11.61 | 9.44 | 7.77 | 6.76 | 5.42 | 4.414 | 2.372 |
| 1.75V/cell | 122.6 | 88.6 | 69.9 | 58.9 | 44.3 | 32.6 | 27.03 | 15.52 | 11.81 | 9.61 | 7.94 | 6.92 | 5.50 | 4.525 | 2.392 |
| 1.70V/cell | 131.2 | 94.4 | 73.5 | 61.4 | 45.9 | 33.8 | 27.83 | 15.92 | 12.11 | 9.85 | 8.13 | 7.05 | 5.57 | 4.615 | 2.442 |
| 1.67V/cell | 142.6 | 100.9 | 77.6 | 64.8 | 48.0 | 34.4 | 28.23 | 16.02 | 12.61 | 10.11 | 8.33 | 7.19 | 5.65 | 4.705 | 2.472 |
| 1.60V/cell | 153.8 | 107.1 | 81.6 | 68.2 | 50.4 | 35.6 | 28.33 | 16.62 | 12.91 | 10.41 | 8.57 | 7.32 | 5.69 | 4.745 | 2.482 |