

Motive Battery

Energy Storage Battery

Reserve Battery

Motorcycle Battery



Industry Battery-General Purpose AGM Battery-TN Series

TN12-24A

(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

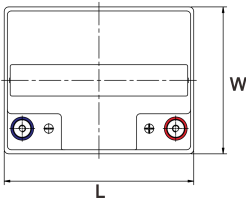
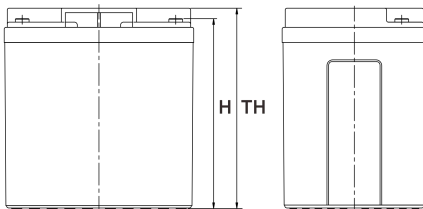
Unit:mm

Length 164±2mm / 6.46inch

Width 125±2mm / 4.92inch

Container Height 175±3mm / 6.89inch

Total Height 175±3mm / 6.89inch



Application

- ◆ Uninterrupted Power Supply (UPS)
- ◆ Communications and electric equipment
- ◆ Emergency lighting equipment
- ◆ Fire alarm and security system
- ◆ Robots, 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

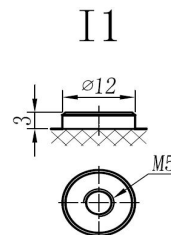
Terminal

Unit:mm

Terminal Type: I1

Weight

8.45kg 18.63lbs



This document is subject to change without prior notification

- Motive Battery
- Energy Storage Battery
- Reserve Battery
- Motorcycle Battery



TN12-24A

Specificaion

Nominal Voltage	12V	
Rated Capacity(25°C)	24.02Ah	20hr Rate(1.80V/cell)
	22.32Ah	10hr Rate(1.80V/cell)
	20.71Ah	5hr Rate(1.75V/cell)
	19.15Ah	3hr Rate(1.70V/cell)
	15.3Ah	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

TN12-24A

(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，抗腐蚀性能力出众
- ◆ 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）



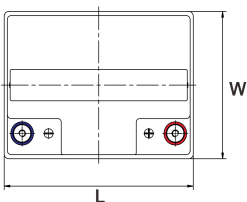
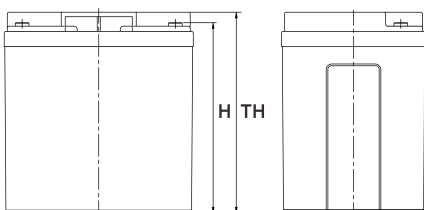
产品应用

- ◆ 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
- ◆ 机器人、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	164±2mm
宽	125±2mm
高	175±3mm
总高	175±3mm



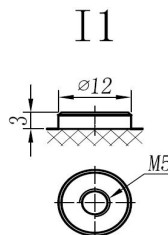
端子类型

单位:mm

端子类型 I1

重量

8.45kg 18.63lbs



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



TN12-24A

规格书

额定电压	12V	
容量(25°C)	24.02Ah 20hr Rate(1.80V/cell)	
	22.32Ah 10hr Rate(1.80V/cell)	
	20.71Ah 5hr Rate(1.75V/cell)	
	19.15Ah 3hr Rate(1.70V/cell)	
	15.3Ah 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
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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
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