

Motive Battery

Energy Storage Battery

Reserve Battery

Motorcycle Battery



Industry Battery-General Purpose AGM Battery-TN Series

TN12-20

(12V 20Ah)

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

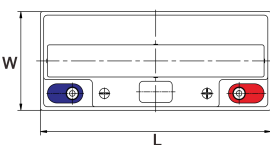
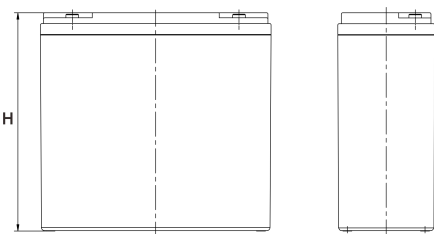
Unit:mm

Length 182±2mm / 7.15inch

Width 77±2mm / 3.03inch

Container Height 170±3mm / 6.59inch

Total Height 170±3mm / 6.59inch



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

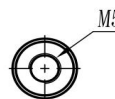
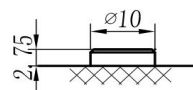
Terminal Type: I10

Weight

5.7kg

12.74lbs

I10



This document is subject to change without prior notification

Motive Battery

Energy Storage Battery

Reserve Battery

Motorcycle Battery



TN12-20

Specificaion

Nominal Voltage	12V	
Rated Capacity(25°C)	20.02Ah	20hr Rate(1.80V/cell)
	18.62Ah	10hr Rate(1.80V/cell)
	17.26Ah	5hr Rate(1.75V/cell)
	15.96Ah	3hr Rate(1.70V/cell)
	12.79Ah	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	6A (0.3C)	
Max. Discharge Current (5S)	300A	
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	38.1	29.2	24.2	20.9	16.2	12.1	10.25	6.04	4.72	3.84	3.14	2.71	2.18	1.802	0.991
1.80V/cell	51.2	37.4	29.3	24.8	19.1	14.1	11.47	6.59	5.09	4.10	3.36	2.90	2.31	1.862	1.001
1.75V/cell	57.7	41.1	32.0	26.6	19.8	14.6	11.98	6.83	5.18	4.19	3.45	2.98	2.35	1.912	1.011
1.70V/cell	63.6	44.8	34.1	28.0	20.7	15.2	12.38	7.00	5.32	4.30	3.54	3.04	2.38	1.952	1.031
1.67V/cell	70.1	48.3	36.3	29.7	21.8	15.6	12.59	7.11	5.55	4.46	3.63	3.11	2.42	1.992	1.041
1.60V/cell	77.3	52.5	38.8	31.7	23.0	16.2	12.79	7.41	5.71	4.59	3.76	3.17	2.44	2.012	1.051

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	69.7	54.1	45.2	39.5	30.9	22.9	19.42	11.61	9.08	7.41	6.06	5.27	4.26	3.574	1.962
1.80V/cell	92.6	68.3	54.0	46.0	35.9	26.5	21.62	12.51	9.72	7.87	6.47	5.63	4.51	3.684	1.982
1.75V/cell	102.1	73.9	58.2	49.0	36.9	27.2	22.52	12.91	9.86	8.01	6.62	5.77	4.58	3.774	2.002
1.70V/cell	109.4	78.7	61.3	51.2	38.2	28.2	23.12	13.21	10.11	8.21	6.78	5.88	4.64	3.844	2.032
1.67V/cell	118.9	84.1	64.7	54.0	40.0	28.6	23.52	13.31	10.51	8.46	6.94	5.99	4.70	3.914	2.052
1.60V/cell	128.1	89.2	68.0	56.9	41.9	29.7	23.62	13.91	10.81	8.70	7.14	6.10	4.73	3.954	2.062

□ 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

TN12-20

(12V 20Ah)

产品特点

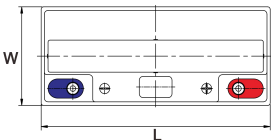
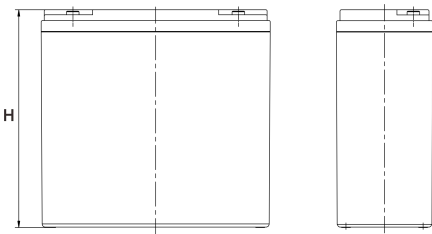
- ◆ 阀控式免维护设计，寿命期间无需加水或加酸
- ◆ 专利稀土合金板栅，减少气体产生，自放电率低，抗腐蚀能力出众
- ◆ 在25°C下，产品浮充设计寿命为3~5年，优良的深放电恢复能力
- ◆ 高质量AGM隔板：防止微短路，延长循环寿命
- ◆ ABS壳盖：电池外壳强度高（阻燃壳体UL94-V0可选）



尺寸

单个尺寸

长	182±2mm
宽	77±2mm
高	170±3mm
总高	170±3mm



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

端子类型

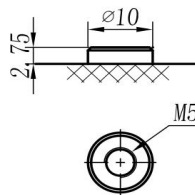
单位:mm

端子类型 I10

重量

5.7kg 12.74lbs

I10



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



TN12-20

规格书

额定电压	12V	
容量(25°C)	20.02Ah 20hr Rate(1.80V/cell)	
	18.62Ah 10hr Rate(1.80V/cell)	
	17.26Ah 5hr Rate(1.75V/cell)	
	15.96Ah 3hr Rate(1.70V/cell)	
	12.79Ah 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	6A (0.3C)	
最大放电电流 (5S)	300A	
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	38.1	29.2	24.2	20.9	16.2	12.1	10.25	6.04	4.72	3.84	3.14	2.71	2.18	1.802	0.991
1.80V/cell	51.2	37.4	29.3	24.8	19.1	14.1	11.47	6.59	5.09	4.10	3.36	2.90	2.31	1.862	1.001
1.75V/cell	57.7	41.1	32.0	26.6	19.8	14.6	11.98	6.83	5.18	4.19	3.45	2.98	2.35	1.912	1.011
1.70V/cell	63.6	44.8	34.1	28.0	20.7	15.2	12.38	7.00	5.32	4.30	3.54	3.04	2.38	1.952	1.031
1.67V/cell	70.1	48.3	36.3	29.7	21.8	15.6	12.59	7.11	5.55	4.46	3.63	3.11	2.42	1.992	1.041
1.60V/cell	77.3	52.5	38.8	31.7	23.0	16.2	12.79	7.41	5.71	4.59	3.76	3.17	2.44	2.012	1.051

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		54.1	45.2	39.5	30.9	22.9	19.42	11.61	9.08	7.41	6.06	5.27	4.26	3.574	1.962
1.80V/cell	92.6	68.3	54.0	46.0	35.9	26.5	21.62	12.51	9.72	7.87	6.47	5.63	4.51	3.684	1.982
1.75V/cell	102.1	73.9	58.2	49.0	36.9	27.2	22.52	12.91	9.86	8.01	6.62	5.77	4.58	3.774	2.002
1.70V/cell	109.4	78.7	61.3	51.2	38.2	28.2	23.12	13.21	10.11	8.21	6.78	5.88	4.64	3.844	2.032
1.67V/cell	118.9	84.1	64.7	54.0	40.0	28.6	23.52	13.31	10.51	8.46	6.94	5.99	4.70	3.914	2.052
1.60V/cell	128.1	89.2	68.0	56.9	41.9	29.7	23.62	13.91	10.81	8.70	7.14	6.10	4.73	3.954	2.062