

Motive Battery

Energy Storage Battery

Reserve Battery

Motorcycle Battery



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

# TNX12-220W

(12V 221W, 15min@1.67Vpc)

(12V 70Ah, 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

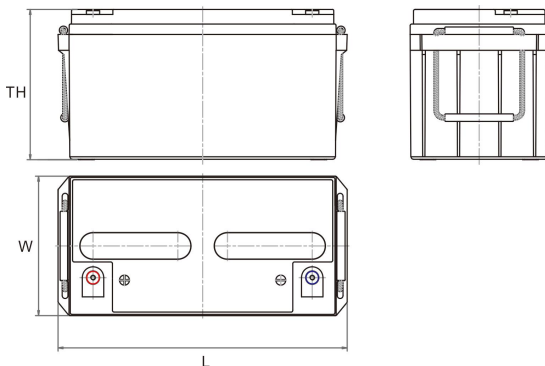
Unit:mm

Length 348±2mm / 13.7inch

Width 167±2mm / 6.57inch

Container Height 178±3mm / 7.01inch

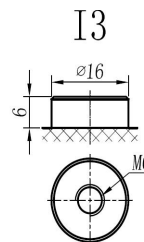
Total Height 178±3mm / 7.01inch



### Terminal

Unit:mm

Terminal Type: I3



### Weight

21kg 46.43lbs



ISO9001 ISO14001 OHSAS18001

This document is subject to change without prior notification

- Motive Battery       Energy Storage Battery
- Reserve Battery       Motorcycle Battery



## TNX12-220W

### Specification

<b>Nominal Voltage</b>	12V	
<b>Rated Power (15min Rate 25°C)</b>	221W F.V (1.67V/cell)	
<b>Rated Capacity (10HR 25°C)</b>	68.9Ah (1.80V/cell)	
<b>Dimension</b>	<b>Length</b>	348±2mm / 13.7inch
	<b>Width</b>	167±2mm / 6.57inch
	<b>Container Height</b>	178±3mm / 7.01inch
	<b>Total Height</b>	178±3mm / 7.01inch
<b>Weight</b>	21kg / 46.43lbs	
<b>Terminal</b>	I3	
<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>	21A ( 0.3C )	
<b>Max. Discharge Current (5S)</b>	780A	
<b>Internal Resistance</b>	7.5mΩ	
<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	147.2	109.9	93.6	79.7	59.8	44.4	35.69	21.52	16.05	12.90	10.79	9.37	7.93	6.543	3.501
1.80V/cell	182.5	130.2	106.0	87.6	64.5	47.3	37.83	22.53	16.63	13.26	11.13	9.74	8.37	6.888	3.618
1.75V/cell	203.6	141.6	113.0	92.3	67.6	49.5	39.43	23.30	17.09	13.66	11.38	10.01	8.51	6.982	3.677
1.70V/cell	219.8	152.5	119.5	96.5	69.8	51.4	40.64	23.93	17.54	13.98	11.68	10.23	8.64	7.055	3.727
1.67V/cell	235.2	159.8	124.4	100.2	72.2	53.0	41.91	24.67	17.96	14.31	11.97	10.46	8.74	7.135	3.760
1.60V/cell	249.8	168.3	129.0	103.4	74.6	54.4	43.05	25.24	18.34	14.60	12.20	10.68	8.82	7.201	3.793

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	265.6	200.5	172.4	148.1	111.7	83.7	68.24	41.42	31.06	25.11	21.08	18.38	15.63	13.016	6.977
1.80V/cell	326.1	235.6	194.2	162.0	120.2	88.8	72.11	43.25	32.11	25.73	21.70	19.07	16.44	13.669	7.194
1.75V/cell	359.9	254.3	205.8	169.8	125.4	92.5	74.98	44.61	32.93	26.44	22.13	19.53	16.67	13.807	7.282
1.70V/cell	384.3	271.4	216.3	176.7	128.8	95.7	77.03	45.69	33.68	26.97	22.63	19.91	16.85	13.902	7.359
1.67V/cell	406.7	281.9	221.2	182.2	132.6	98.3	79.11	46.98	34.41	27.54	23.14	20.29	17.01	14.031	7.406
1.60V/cell	424.6	293.2	229.3	186.6	136.3	100.5	80.96	47.84	35.02	27.98	23.50	20.66	17.12	14.124	7.457

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

# TNX12-220W

(12V 221W, 15min@1.67Vpc)

(12V 70Ah, 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



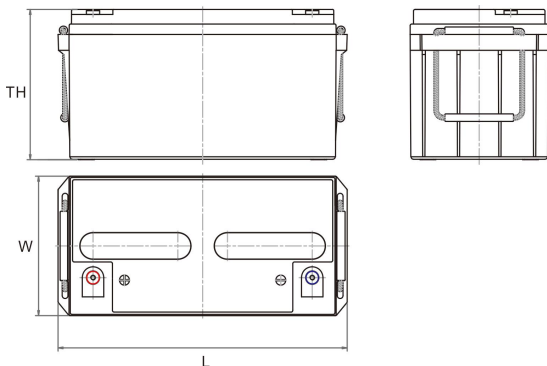
### 产品应用

- ◆ 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 348±2mm / 13.7inch  
 宽 167±2mm / 6.57inch  
 高 178±3mm / 7.01inch  
 总高 178±3mm / 7.01inch



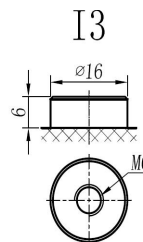
### 端子类型

单位:mm

端子类型 I3

### 重量

21kg 46.43lbs



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



## TNX12-220W

### 规格书

额定电压	12V	
15分钟放电功率	221W F.V (1.67V/cell)	
额定容量 (10小时)	68.9Ah (1.80V/cell)	
尺寸	长	348±2mm
	宽	167±2mm
	高	178±3mm
	总高	178±3mm
重量	21kg	
端子	I3	
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	2.25 -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	21A (0.3C)	
最大放电电流 (5S)	780A	
电阻	7.5mΩ	
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	147.2	109.9	93.6	79.7	59.8	44.4	35.69	21.52	16.05	12.90	10.79	9.37	7.93	6.543	3.501
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1.60V/cell	249.8	168.3	129.0	103.4	74.6	54.4	43.05	25.24	18.34	14.60	12.20	10.68	8.82	7.201	3.793

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	265.6	200.5	172.4	148.1	111.7	83.7	68.24	41.42	31.06	25.11	21.08	18.38	15.63	13.016	6.977
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1.60V/cell	424.6	293.2	229.3	186.6	136.3	100.5	80.96	47.84	35.02	27.98	23.50	20.66	17.12	14.124	7.457