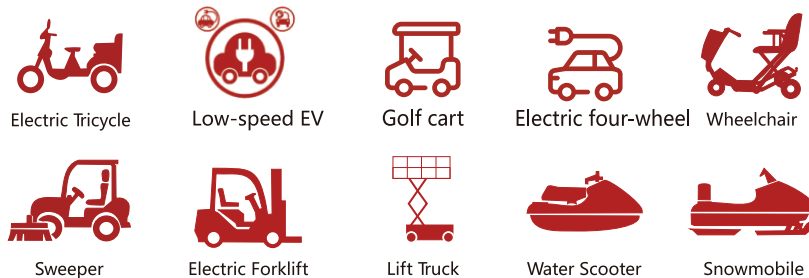




## Product Features

Deep Cycle Series	400~600 Cycle Times @100%DOD	
↑10% Energy Density Patent negative pasting formula	↓50% Grid Corrosion Rare-earth patent alloy	0% Acid stratification Nano silica gel technology

## Product Applications



## Physical Specification

Model	Dimensions (mm/inch)				Weight (kg/lbs)	Terminal	Container
	Length	Width	Height	Total Height			
TNE12-58	224/8.82	135/5.31	175/6.89	175/6.89	13.95/30.75	I2	ABS UL94-HB (Optional: FR ABS UL94-V0)

## Product Specifications

Nominal Voltage	Rated Capacity 25°C/77°F	Operating Temp. Range	Capacity Effected Temp	Capacity vs Storage Time (25°C/77°F)
12V	58Ah 20hr Rate (1.80V/cell) 55Ah 10hr Rate (1.75V/cell) 54Ah 5hr Rate (1.75V/cell) 52Ah 3hr Rate (1.75V/cell)	Discharge: -15°C~50°C (5°F~122°F) Charge: 0°C~40°C (32°F~104°F) Storage: -15°C~40°C (5°F~104°F) Optimum: 25°C±2°C (77°F±5°F)	40°C (104°F): 106% 25°C (77°F): 100% 0°C (32°F): 85% -15°C (5°F): 72%	Three months : 90% Six months : 80%

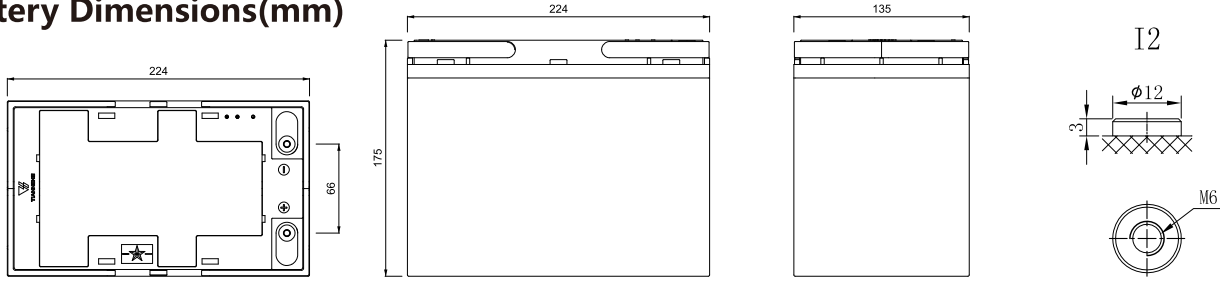
## Constant Current Discharge (A)@25°C (77°F)

F.V/Time	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	59.1	42.1	33.7	19.3	16.1	12.4	10.1	8.48	6.46	5.24	2.80
1.80V/cell	61.2	43.3	34.8	19.9	16.7	12.8	10.4	8.79	6.66	5.39	2.90
1.75V/cell	62.8	45.0	36.0	21.2	17.3	13.3	10.7	9.02	6.86	5.52	2.96
1.70V/cell	64.4	46.1	37.3	21.5	17.7	13.7	11.1	9.34	7.02	5.66	3.02
1.67V/cell	65.7	47.6	38.6	21.8	17.9	13.8	11.3	9.42	7.14	5.74	3.05
1.60V/cell	67.4	49.0	39.4	22.5	18.6	14.2	11.5	9.67	7.30	5.89	3.07

## Constant Power Discharge (W/cell)@25°C (77°F)

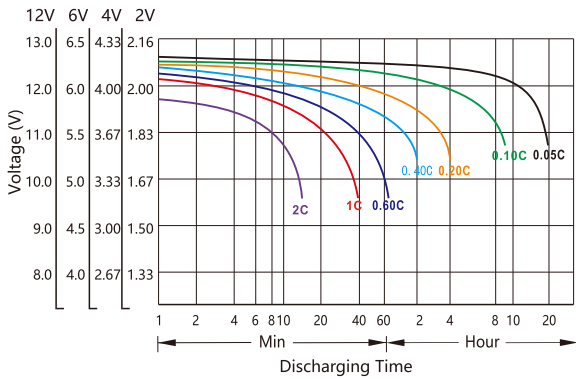
F.V/Time	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	115	82.8	66.7	38.5	32.3	25.0	20.3	17.1	13.1	10.6	5.71
1.80V/cell	119	84.9	68.5	39.6	33.4	25.7	21.0	17.7	13.4	10.9	5.88
1.75V/cell	122	87.9	70.8	42.0	34.5	26.5	21.5	18.1	13.8	11.1	5.97
1.70V/cell	124	89.5	72.9	42.4	35.1	27.1	22.0	18.6	14.0	11.3	6.08
1.67V/cell	126	91.7	75.0	42.6	35.3	27.2	22.3	18.6	14.2	11.4	6.09
1.60V/cell	128	93.7	75.7	43.7	36.2	27.8	22.6	19.0	14.4	11.6	6.13

## Battery Dimensions(mm)

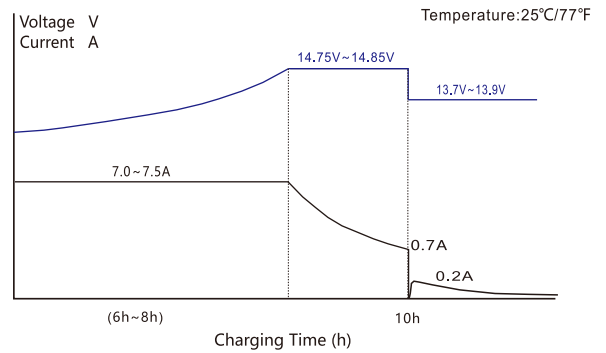


## Electrical Characteristics

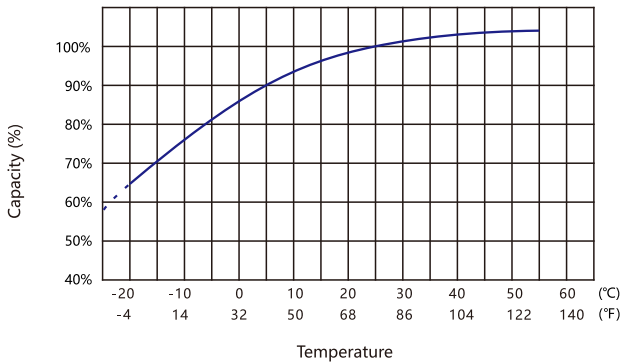
### Discharging Characteristics@25°C(77°F)



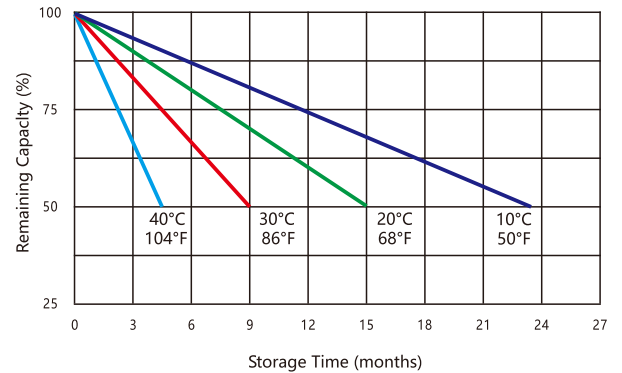
### Charging Characteristics@25°C(77°F)



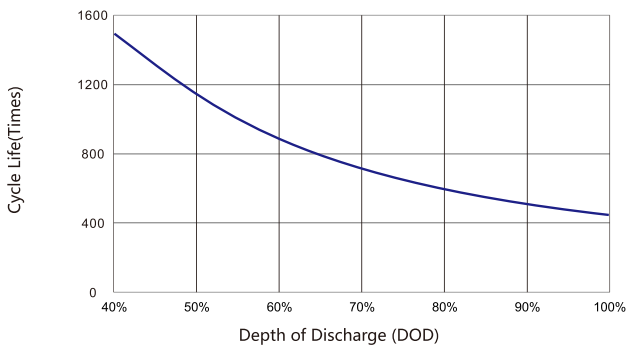
### Capacity vs Temperature



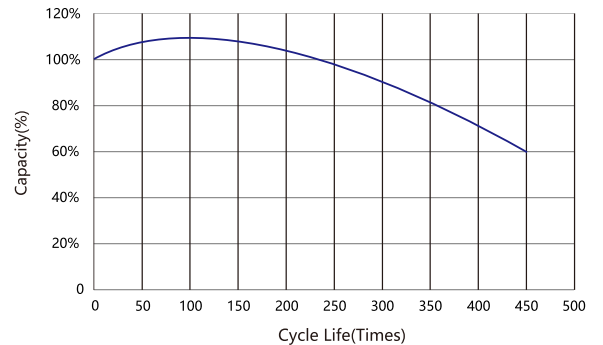
### Self-discharge vs Time



### Cycle Life vs Depth of Discharge@25°C(77°F)



### Cycle Life vs Remaining Capacity@25°C(77°F)



## Usage and Maintenance

Limited Current	Limited Voltage	Floating Voltage
Limited current: $\leq 0.15C_A$	14.6V~14.8V @25°C(77°F) Temp.Coefficient:-24mV/°C	13.6V~13.8V @25°C(77°F) Temp.Coefficient:-18mV/°C