

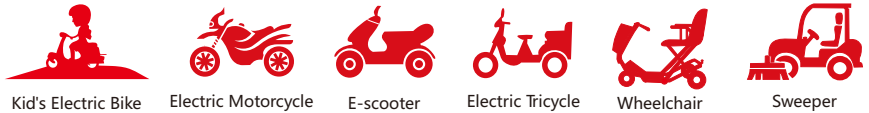
# TNEH 12-27 [12V27Ah]



## Product Features

Deep Cycle Black Gold Series 500~600 Cycle Times @100%DOD			
<b>↑20% Cycle Life</b> Three advanced material	Carbon Fiber	Graphene	Rare-earth alloy
	<b>↑10%</b> Discharge Power Positive Carbon Fiber	<b>↑15%</b> Low Temp. Capacity Negative graphene formula	<b>↓50%</b> Grid Corrosion Rare-earth patent alloy

## Product Applications



## Physical Specification

Model	Dimensions (mm/inch)				Weight (kg/lbs)	Terminal	Container
TNEH12-27	Length	Width	Height	Total Height	6.80/14.99	I10	ABS UL94-HB (Optional: FR ABS UL94-V0)
	181/7.13	77/3.03	170/6.69	175/6.89			

## Product Specifications

Nominal Voltage	Rated Capacity 25°C/77°C	Operating Temp. Range	Capacity Effected Temp	Capacity vs Storage Time
12V	27Ah 20hr Rate (1.80V/cell) 25Ah 10hr Rate (1.75V/cell) 23.5Ah 5hr Rate (1.75V/cell) 22.3Ah 2hr Rate (1.75V/cell)	Discharge: -15~50°C (5~122°F) Charge: 0~40°C (32~104°F) Storage: -15~40°C (5~104°F) Optimum: 25±3°C (77±5°F)	40°C (104°F): 106% 25°C (77°F): 100% 0°C (32°F): 90% -15°C (5°F): 76%	Three months : 90% Six months : 80% Nine months : 60%

## 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	30.4	21.7	17.2	10.1	6.95	5.25	4.25	3.67	2.90	2.39	1.31
1.80V/cell	31.4	22.3	17.7	10.5	7.10	5.42	4.42	3.81	2.98	2.45	1.35
1.75V/cell	32.3	23.2	18.4	11.2	7.49	5.67	4.70	4.00	3.07	2.50	1.38
1.70V/cell	33.2	23.8	19.0	11.3	7.64	5.81	4.74	4.08	3.14	2.57	1.41
1.68V/cell	33.9	24.6	19.7	11.5	7.75	5.95	4.88	4.16	3.21	2.61	1.42
1.60V/cell	34.8	25.2	20.1	11.8	8.02	6.12	4.95	4.27	3.29	2.70	1.43

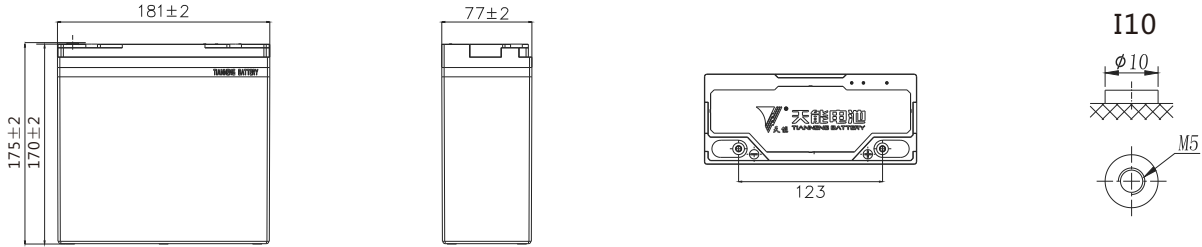
## Constant Power Discharge (W/cell)@25°C (77°F)

F.V/Time	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	59.4	42.7	34.0	20.2	13.9	10.6	8.58	7.42	5.87	4.85	2.66
1.80V/cell	61.1	43.7	34.9	20.8	14.2	10.9	8.88	7.67	6.01	4.96	2.74
1.75V/cell	62.7	45.3	36.1	22.1	14.9	11.3	9.40	8.01	6.16	5.04	2.78
1.70V/cell	63.9	46.1	37.1	22.3	15.1	11.5	9.43	8.12	6.28	5.14	2.83
1.68V/cell	64.8	47.3	38.2	22.4	15.2	11.7	9.64	8.24	6.36	5.19	2.84
1.60V/cell	66.0	48.2	38.6	23.0	15.6	12.0	9.70	8.38	6.48	5.32	2.85

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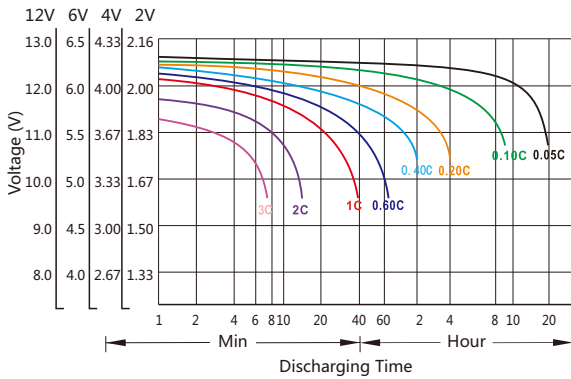


## Battery Dimensions(mm)

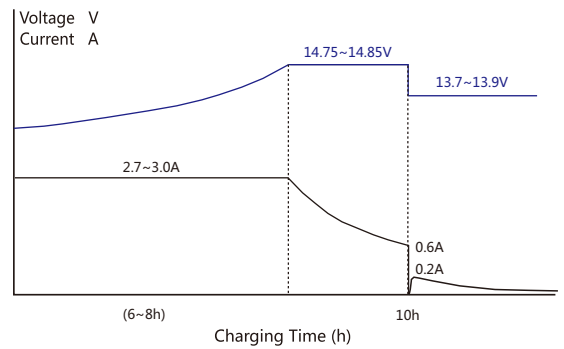


## Electrical Characteristics

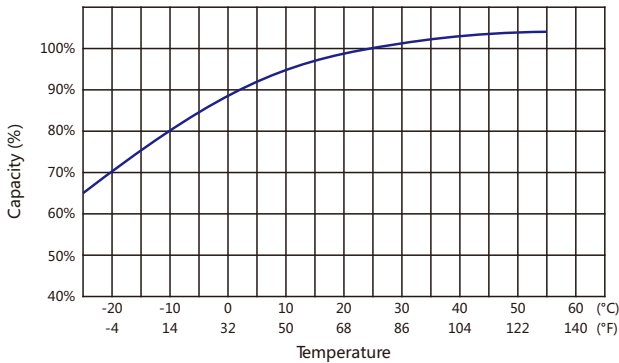
### Discharging Characteristics@25°C(77°F)



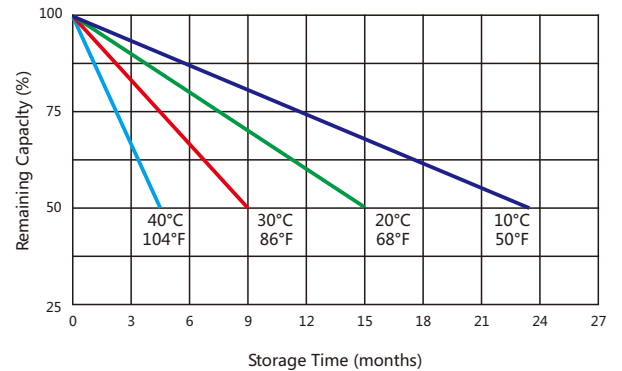
### Charging Characteristics@25°C(77°F)



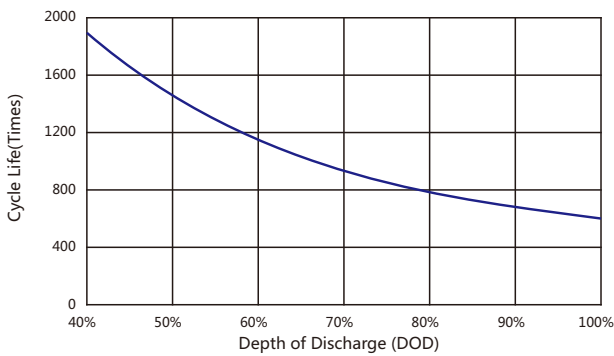
### Capacity vs Temperature



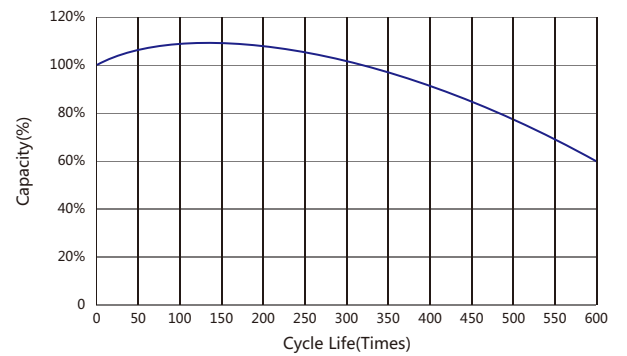
### Self-discharge vs Time



### 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	Limited Voltage
Limited current : $\leq 0.2C_2A$	14.75~14.85V@25°C(77°F) Temp.Coefficient: -24mV/°C	13.7~13.9V@25°C(77°F) Temp.Coefficient: -18mV/°C