

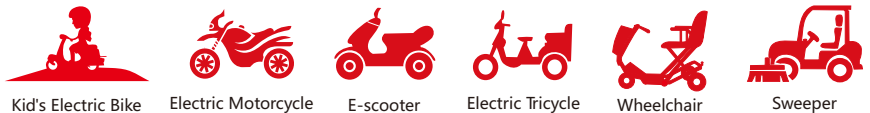
TNEP 12-48[12V48Ah]



Product Features

Deep Cycle Long Life Series 400~600 Cycle Times @100%DOD		
↑10% Capacity Improve the content and utilization of active substances, Direct Bar-welding	Carbon Fiber	Rare-earth alloy
	↑15% Discharge Power Discharge Power Positive Carbon Fiber	↓50% Grid Corrosion Rare-earth patent alloy

Product Applications



Physical Specification

Model	Dimensions (mm/inch)				Weight (kg/lbs)	Terminal	Container
TNEP12-48	Length	Width	Height	Total Height	14.0/30.9	I3	ABS UL94-HB (Optional: FR ABS UL94-V0)
	198.5/7.81	166/6.54	169.5/6.67	169.5/6.67			

Product Specifications

Nominal Voltage	Rated Capacity 25°C/77°C	Operating Temp. Range	Capacity Effected Temp	Capacity vs Storage Time
12V	48Ah 20hr Rate (1.80V/cell) 45Ah 10hr Rate (1.75V/cell) 43Ah 5hr Rate (1.75V/cell) 41Ah 3hr 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): 85% -15°C (5°F): 72%	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	48.9	34.8	27.9	16.0	12.7	9.89	8.04	6.81	5.21	4.24	2.32
1.80V/cell	50.6	35.9	28.8	16.5	13.2	10.2	8.35	7.06	5.37	4.36	2.40
1.75V/cell	52.0	37.2	29.8	17.6	13.7	10.6	8.56	7.22	5.53	4.46	2.45
1.70V/cell	53.3	38.2	30.9	17.8	14.0	10.9	8.87	7.52	5.66	4.57	2.50
1.68V/cell	54.4	39.4	32.0	18.0	14.1	11.0	9.04	7.58	5.76	4.64	2.52
1.60V/cell	55.8	40.6	32.6	18.6	14.6	11.3	9.25	7.79	5.90	4.78	2.54

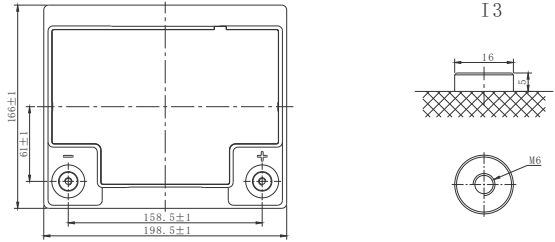
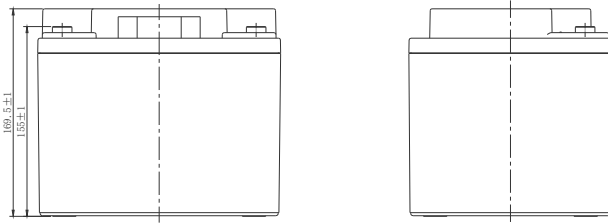
Constant Power Discharge (W/cell)@25°C (77°F)

F.V/Time	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	95.5	68.5	55.2	31.8	25.5	19.9	16.2	13.7	10.6	8.61	4.73
1.80V/cell	98.5	70.3	56.7	32.8	26.3	20.5	16.8	14.2	10.8	8.82	4.86
1.75V/cell	101	72.7	58.6	34.8	27.2	21.1	17.1	14.5	11.1	8.99	4.94
1.70V/cell	103	74.1	60.3	35.1	27.6	21.6	17.6	15.0	11.3	9.16	5.03
1.68V/cell	104	75.9	62.1	35.3	27.8	21.7	17.9	15.0	11.4	9.23	5.04
1.60V/cell	106	77.6	62.7	36.1	28.5	22.2	18.1	15.3	11.6	9.43	5.07

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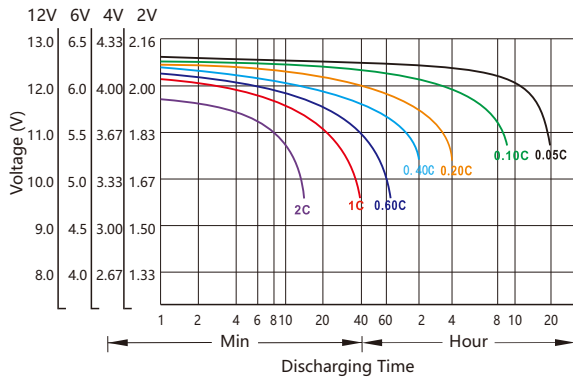


Battery Dimensions(mm)

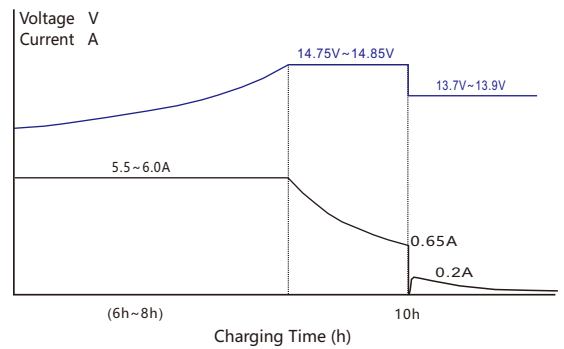


Electrical Characteristics

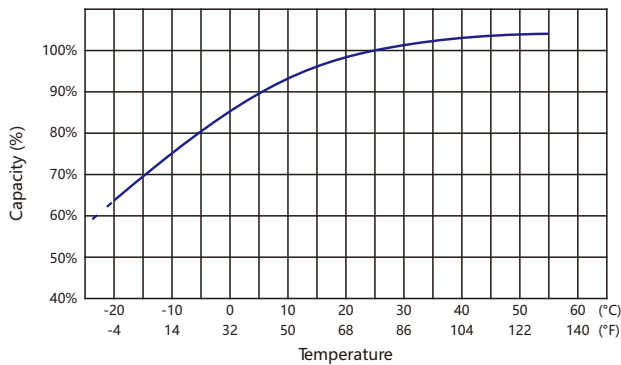
Discharging Characteristics@25°C(77°F)



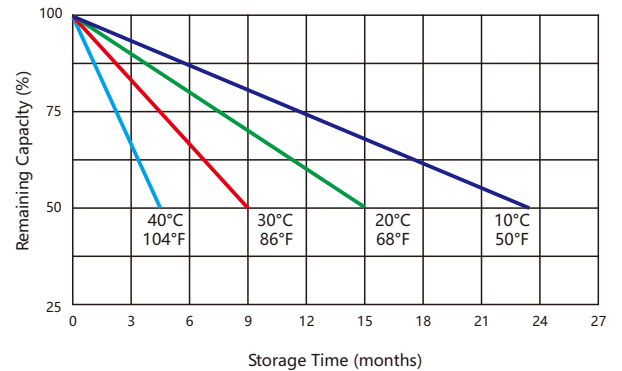
Charging Characteristics (25°C)



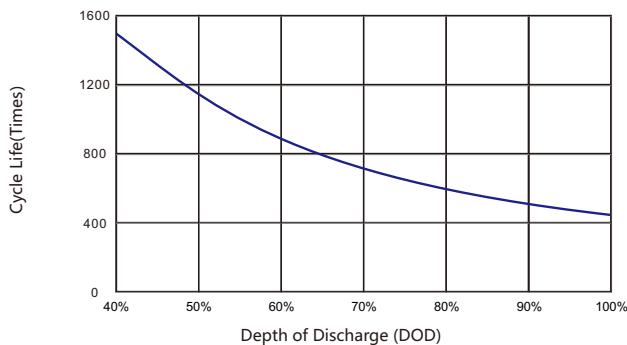
Capacity vs Temperature



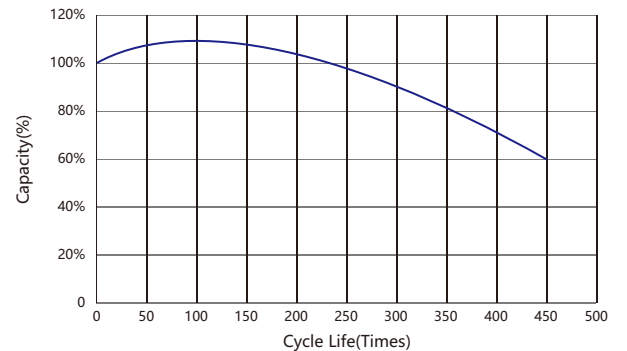
Self-discharge vs Time



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: $\leq 0.2C_5A$	14.75~14.85V@25°C(77°F) Temp.Coefficient: -24mV/°C	13.7~13.9V@25°C(77°F) Temp.Coefficient: -18mV/°C