TNEP 12-42[12V42Ah]

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Product Features

Deep Cycle Long Life Series 400~600 Cycle Times @100%DOD

	Carbon Fiber	Rare-earth alloy
↑10% Capacity Improve the content and utilization of active substances、Direct Bar-welding	↑15% Discharge Power Positive Carbon Fiber	↓50% Grid Corrosion Rare-earth patent alloy

Product Applications

Electric Tricycle, Low-speed EV, Golf cart, Electric four-wheel, Wheelchair, Sweeper, Electric Forklift, Lift Truck, Water Scooter, Snowmobile

Physical Specification

Model	Dimensions (mm/inch)				Weight(kg/lbs) ±3%	Terminal	Container
	Length	Width	Height	Total Height			
TNEP12-42	195/7.68	130/5.12	157/6.20	162/6.38	10.8/23.8	I1	ABS UL94-HB (Optional: FR ABS UL94-V0)

Product Specifications

Nominal Voltage	Rated Capacity 25℃/77℃	Opreating Temp.Range	Capacity Effected Temp	Capacity vs Storge Time (25℃/77℉)
12V	42Ah 20hr Rate (1.80V/cell) 40Ah 10hr Rate (1.75V/cell) 37Ah 5hr Rate (1.75V/cell) 34Ah 3hr Rate (1.75V/cell)	Discharge: -15~50℃ (5~122℉) Charge: 0~40℃ (32~104℉) Storage: -15~40℃ (5~104℉) Optimum: 25±3℃ (77±5℉)	40℃ (104℉): 106% 25℃ (77℉): 100% 0℃ (32℉): 85% -15℃ (5℉): 72%	Three months : 90% Six months : 80%

Constant Current Discharge (A)@25℃ (77℉)

F.V/Time	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	44.0	31.3	25.1	14.4	10.5	8.67	6.96	5.92	4.57	3.73	1.98
1.80V/cell	45.5	32.3	25.9	14.8	11.0	8.92	7.23	6.14	4.70	3.82	2.10
1.75V/cell	46.7	33.5	26.8	15.8	11.3	9.24	7.40	6.27	4.83	4.00	2.12
1.70V/cell	47.9	34.3	27.8	16.0	12.3	9.56	7.70	6.58	4.95	4.03	2.14
1.68V/cell	48.9	35.4	28.7	16.2	12.4	9.65	7.88	6.61	5.06	4.07	2.15
1.60V/cell	50.2	36.5	29.3	16.7	12.9	9.94	8.05	6.81	5.18	4.20	2.17

Constant Power Discharge (W/cell)@25℃ (77℉)

F.V/Time	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	85.8	61.6	49.6	28.6	21.1	17.5	14.0	12.0	9.25	7.56	4.04
1.80V/cell	88.5	63.2	51.0	29.5	22.0	17.9	14.5	12.4	9.48	7.73	4.26
1.75V/cell	90.6	65.4	52.7	31.3	22.5	18.5	14.8	12.6	9.72	8.06	4.28
1.70V/cell	92.3	66.6	54.2	31.6	24.3	19.0	15.3	13.1	9.90	8.07	4.30
1.68V/cell	93.5	68.2	55.8	31.7	24.4	19.0	15.6	13.1	10.03	8.09	4.30
1.60V/cell	95.2	69.7	56.4	32.5	25.1	19.5	15.8	13.4	10.21	8.30	4.30

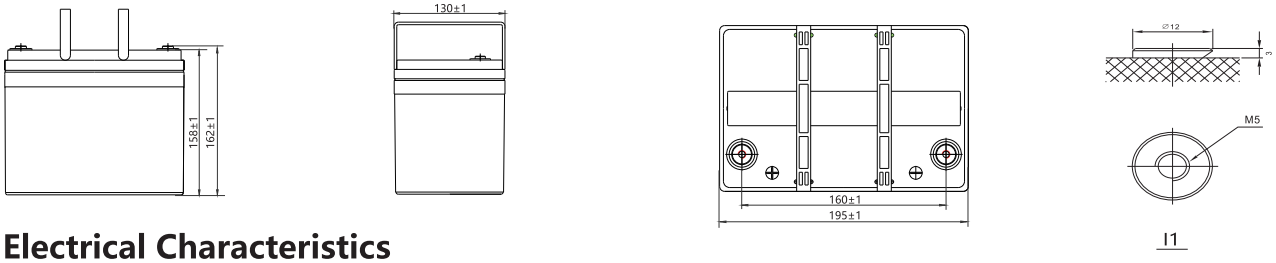
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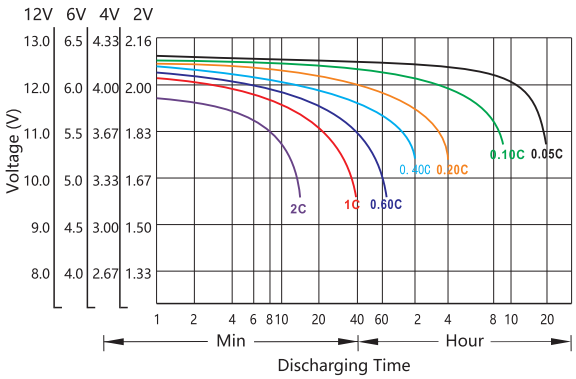
Battery Dimensions(mm)



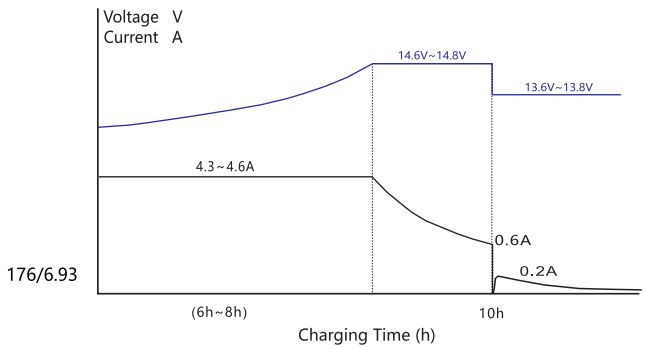
I1

Electrical Characteristics

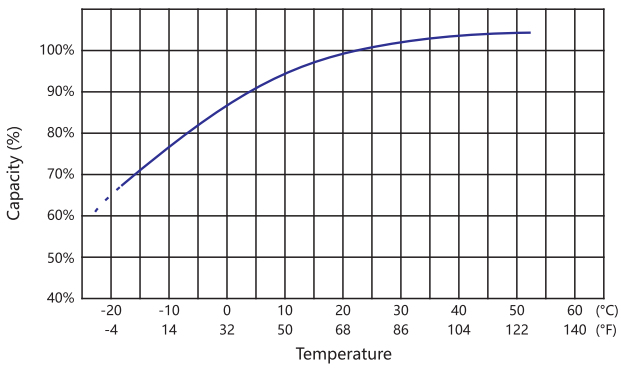
Discharging Characteristics@25℃(77℉)



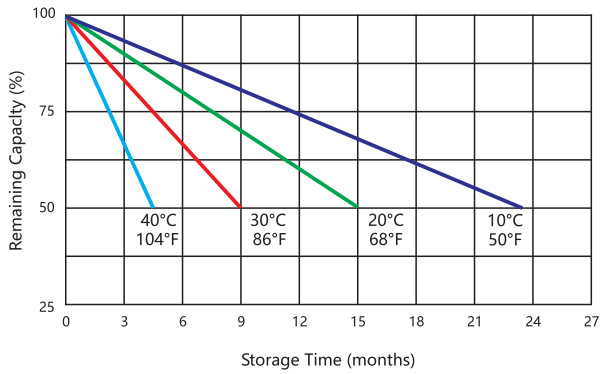
Charging Characteristics (25℃)



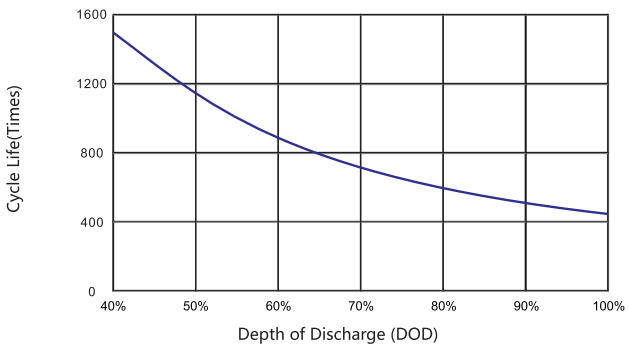
Capacity vs Temperature



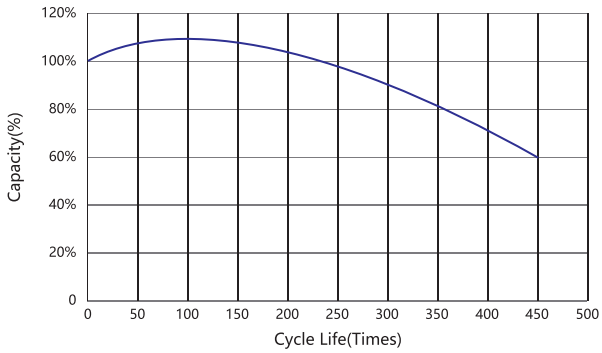
Self-discharge vs Time



Cycle Life vs Depth of Discharge@25℃(77℉)



Cycle Life vs Remaining Capacity@25℃(77℉)



Usage and Maintenance

Limited Current	Limited Voltage	Floating Voltage
Limited current: ≤0.15C₃A	14.6V~14.8V@25℃(77℉) Temp.Coefficient: -24mV/℃	13.6V~13.8V@25℃(77℉) Temp.Coefficient:-18mV/℃

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