

TN12-12 [12V 12Ah]



Product Features

General Purpose (AGM)		3~5 years of design life@25°C	
100%	Model Coverage Both Cycle & Float Application	↑98%	Capacity Retention High Purity Electrolyte
↑20%	Charge Acceptance Special Negative Additive	↓50%	Grid Corrosion Rare-earth patent alloy



Product Applications



Physical Specifications

Model	Dimensions (mm/inch)				Weight (kg/lbs)	Terminal	Container
TN12-12	Length	Width	Height	Total Height	3.60/7.94	T2	ABS UL94-HB (Optional: FR ABS UL94-V0)
	151/5.94	99.5/3.92	95.5/3.76	101.5/4.00			

Product Specifications

Nominal Voltage	Rated Capacity@25°C/77°F	Internal Resistance	Max. Discharge Current	Operating Temp. Range
12V	12.0Ah 20hr Rate (1.80V/cell) 11.4Ah 10hr Rate (1.80V/cell) 9.95Ah 5hr Rate (1.75V/cell) 8.73Ah 3hr Rate (1.70V/cell)	15mΩ@25°C/77°F	180A (5s)	Discharge:-15~50°C (5~122°F) Charge:0~40°C (32~104°F) Storage:-15~40°C (5~104°F) Optimum:25±2°C (77±4°F)

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

F.V/Time	5min	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	38.8	25.2	21.0	17.2	12.0	8.36	6.51	3.68	2.69	2.21	1.90	1.66	1.34	1.11	0.592
1.80V/cell	41.9	26.6	21.8	17.6	12.4	8.56	6.67	3.75	2.76	2.27	1.95	1.70	1.38	1.14	0.600
1.75V/cell	43.4	27.4	22.3	18.1	12.7	8.79	6.83	3.84	2.84	2.32	1.99	1.74	1.41	1.16	0.616
1.70V/cell	45.0	28.0	22.8	18.5	12.9	9.06	7.03	3.96	2.91	2.39	2.05	1.79	1.45	1.19	0.627
1.67V/cell	46.2	28.9	23.3	19.0	13.2	9.24	7.18	4.06	2.98	2.43	2.09	1.83	1.47	1.20	0.638
1.60V/cell	47.7	30.1	24.2	19.6	13.6	9.47	7.36	4.21	3.07	2.51	2.14	1.88	1.51	1.23	0.649

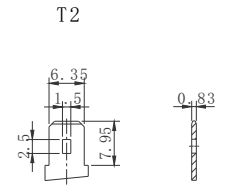
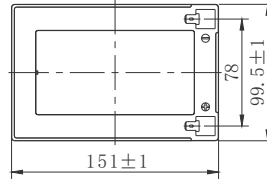
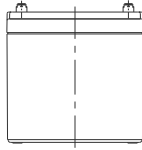
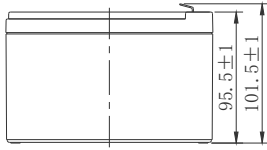
Constant Power Discharge (W/cell)@25°C (77°F)

F.V/Time	5min	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	72.3	47.7	40.2	33.4	23.7	16.6	13.0	7.39	5.43	4.49	3.87	3.38	2.75	2.28	1.22
1.80V/cell	77.9	50.2	41.7	34.1	24.2	16.9	13.2	7.51	5.55	4.59	3.96	3.47	2.81	2.33	1.23
1.75V/cell	80.5	51.5	42.6	34.8	24.8	17.3	13.5	7.67	5.70	4.69	4.04	3.54	2.88	2.37	1.26
1.70V/cell	83.4	52.5	43.3	35.6	25.2	17.8	13.9	7.88	5.82	4.80	4.13	3.63	2.95	2.42	1.28
1.67V/cell	85.3	54.0	44.1	36.4	25.7	18.2	14.2	8.06	5.95	4.88	4.21	3.69	2.99	2.45	1.30
1.60V/cell	87.6	56.0	45.6	37.4	26.3	18.5	14.5	8.34	6.12	5.01	4.30	3.78	3.05	2.50	1.32

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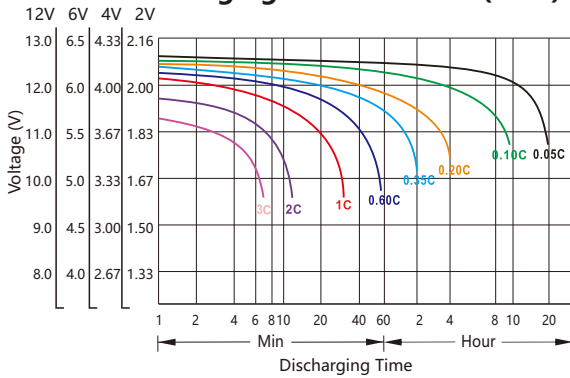


Battery Dimensions(mm)

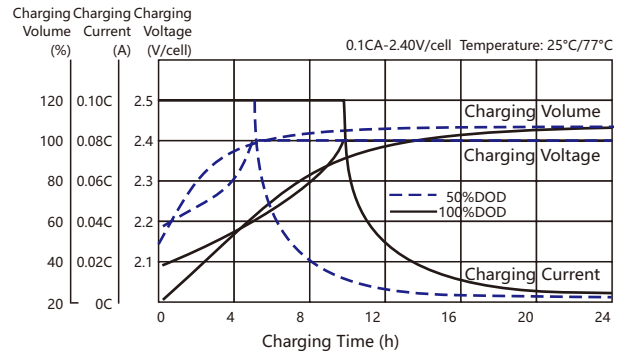


Electrical Characteristics

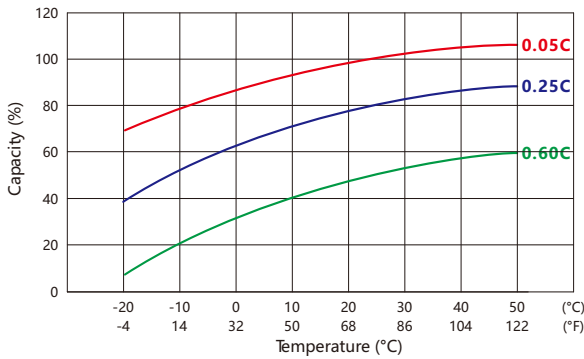
Discharging Characteristics(25°C)



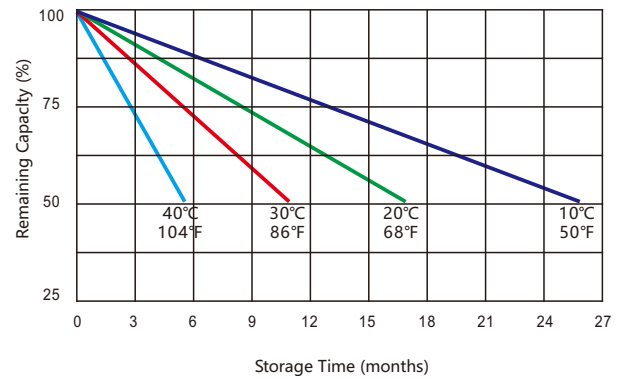
Charging Characteristics(25°C)



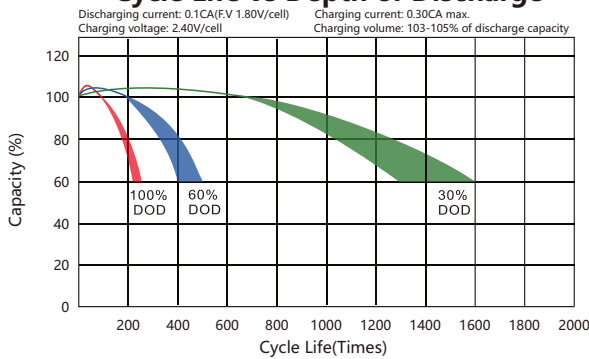
Capacity vs Temperature



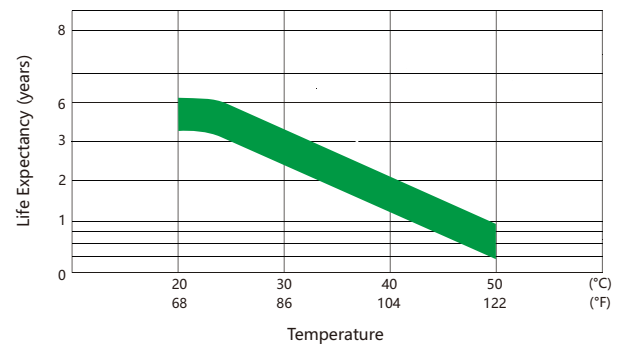
Self-discharge vs Time



Cycle Life vs Depth of Discharge



Floating Life vs Temperature



Usage and Maintenance

Charge Current	Equalization Charge	Float Charge
Limited current: $\leq 0.3C_{20A}$	Constant Voltage: 14.4~14.7V@25°C(77°F) Temp.Coefficient:-24mV/°C	Constant Voltage: 13.5~13.8V@25°C(77°F) Temp.Coefficient:-18mV/°C