

TN12-4.0 [12V 4.0Ah]



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
TN12-4.0	Length	Width	Height	Total Height	1.45/3.20	T1/T2	ABS UL94-HB (Optional: FR ABS UL94-V0)
	90/3.54	70/2.76	101/3.98	107/4.21			

Product Specifications

Nominal Voltage	Rated Capacity@25°C/77°F	Internal Resistance	Max. Discharge Current	Operating Temp. Range
12V	4.0Ah 20hr Rate (1.80V/cell) 3.79Ah 10hr Rate (1.80V/cell) 3.33Ah 5hr Rate (1.75V/cell) 2.91Ah 3hr Rate (1.70V/cell)	35mΩ@25°C/77°F	60A (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	12.9	8.39	6.99	5.75	4.01	2.79	2.17	1.23	0.895	0.736	0.633	0.552	0.447	0.370	0.197
1.80V/cell	14.0	8.87	7.27	5.88	4.12	2.85	2.22	1.25	0.919	0.755	0.648	0.568	0.459	0.379	0.200
1.75V/cell	14.5	9.12	7.45	6.03	4.22	2.93	2.28	1.28	0.947	0.774	0.665	0.580	0.470	0.387	0.205
1.70V/cell	15.0	9.33	7.60	6.18	4.31	3.02	2.34	1.32	0.969	0.795	0.682	0.598	0.484	0.396	0.209
1.67V/cell	15.4	9.62	7.77	6.34	4.40	3.08	2.39	1.35	0.993	0.811	0.697	0.609	0.491	0.402	0.213
1.60V/cell	15.9	10.0	8.06	6.54	4.53	3.16	2.45	1.40	1.02	0.835	0.714	0.625	0.503	0.412	0.216

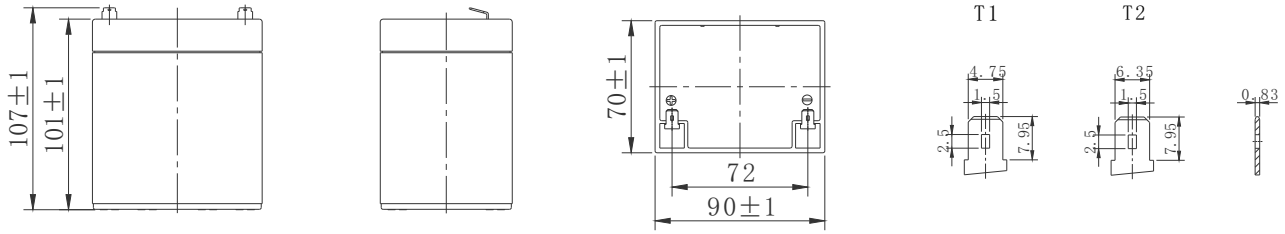
Constant Power Discharge (W/cell)@25°C (77°F)

F.V/Time	5min	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	24.1	15.9	13.4	11.1	7.90	5.53	4.32	2.46	1.81	1.50	1.29	1.13	0.916	0.760	0.406
1.80V/cell	26.0	16.7	13.9	11.4	8.08	5.64	4.41	2.50	1.85	1.53	1.32	1.16	0.938	0.776	0.411
1.75V/cell	26.8	17.2	14.2	11.6	8.25	5.78	4.51	2.56	1.90	1.56	1.35	1.18	0.960	0.791	0.420
1.70V/cell	27.8	17.5	14.4	11.9	8.40	5.95	4.64	2.63	1.94	1.60	1.38	1.21	0.983	0.805	0.426
1.67V/cell	28.4	18.0	14.7	12.1	8.56	6.05	4.72	2.69	1.98	1.63	1.40	1.23	1.00	0.816	0.432
1.60V/cell	29.2	18.7	15.2	12.5	8.77	6.17	4.82	2.78	2.04	1.67	1.43	1.26	1.02	0.832	0.439

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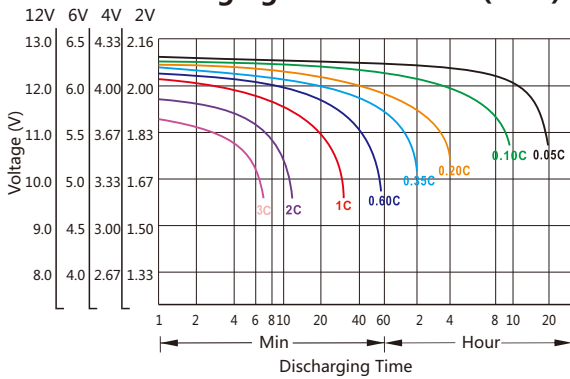


Battery Dimensions(mm)

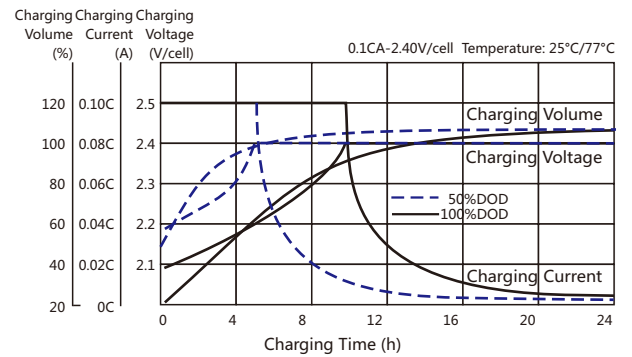


Electrical Characteristics

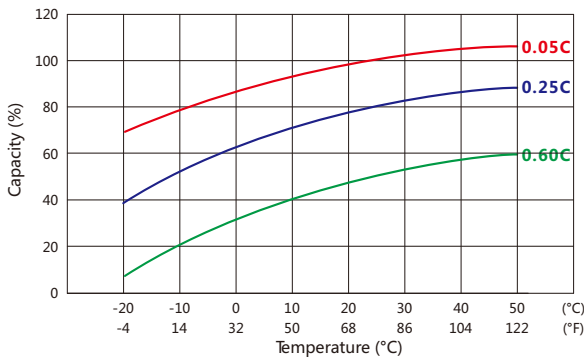
Discharging Characteristics(25°C)



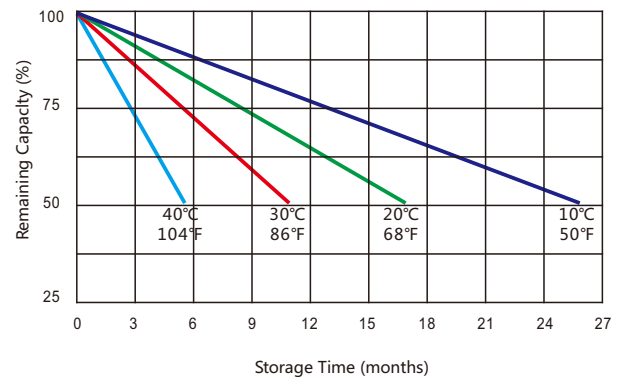
Charging Characteristics(25°C)



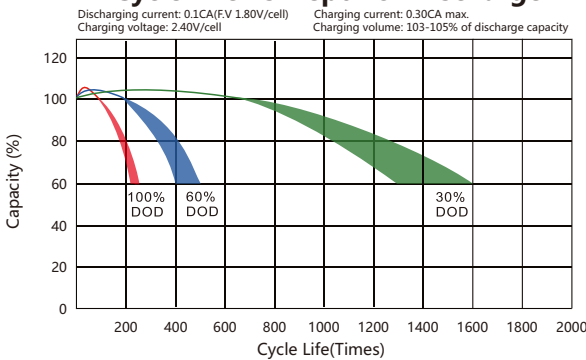
Capacity vs Temperature



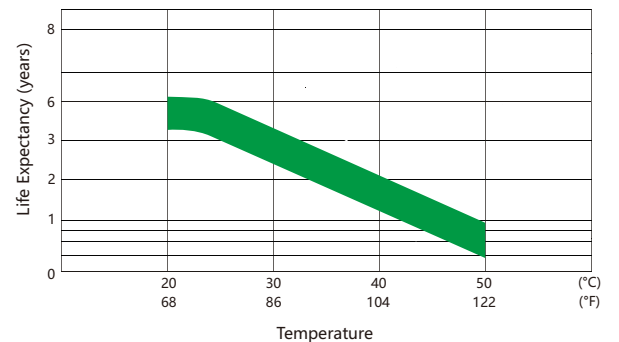
Self-discharge vs Time



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