

TN12-28H [12V 28Ah]



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
TN12-28H	Length	Width	Height	Total Height	8.50/18.7	I1	ABS UL94-HB (Optional: FR ABS UL94-V0)
	166/6.54	126.5/4.98	172.5/6.79	172.5/6.79			

Product Specifications

Nominal Voltage	Rated Capacity@25°C/77°F	Internal Resistance	Max. Discharge Current	Operating Temp. Range
12V	28.0Ah 20hr Rate (1.80V/cell) 26.5Ah 10hr Rate (1.80V/cell) 23.3Ah 5hr Rate (1.75V/cell) 20.3Ah 3hr Rate (1.70V/cell)	12mΩ@25°C/77°F	420A (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	90.6	58.7	48.9	40.2	28.1	19.5	15.2	8.58	6.27	5.15	4.43	3.86	3.13	2.59	1.38
1.80V/cell	97.8	62.1	50.9	41.2	28.8	20.0	15.6	8.75	6.43	5.29	4.54	3.98	3.21	2.65	1.40
1.75V/cell	101.3	63.8	52.1	42.2	29.5	20.5	15.9	8.96	6.63	5.42	4.65	4.06	3.29	2.71	1.44
1.70V/cell	105.0	65.3	53.2	43.3	30.2	21.1	16.4	9.23	6.78	5.57	4.77	4.19	3.38	2.77	1.46
1.67V/cell	107.8	67.4	54.4	44.4	30.8	21.6	16.8	9.47	6.95	5.68	4.88	4.26	3.44	2.81	1.49
1.60V/cell	111.2	70.2	56.4	45.8	31.7	22.1	17.2	9.83	7.17	5.85	5.00	4.38	3.52	2.88	1.51

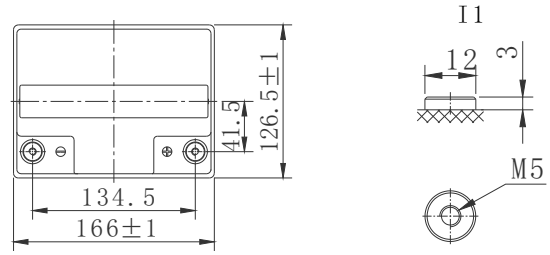
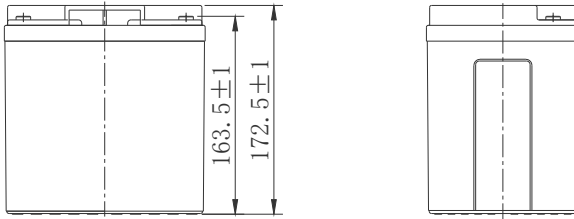
Constant Power Discharge (W/cell)@25°C (77°F)

F.V/Time	5min	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	168.6	111.2	93.9	78.0	55.3	38.7	30.2	17.2	12.7	10.5	9.04	7.90	6.41	5.32	2.84
1.80V/cell	181.8	117.2	97.2	79.6	56.6	39.5	30.9	17.5	13.0	10.7	9.23	8.10	6.57	5.43	2.87
1.75V/cell	187.8	120.1	99.3	81.3	57.8	40.4	31.5	17.9	13.3	10.9	9.43	8.26	6.72	5.54	2.94
1.70V/cell	194.5	122.5	101.0	83.0	58.8	41.6	32.4	18.4	13.6	11.2	9.64	8.48	6.88	5.64	2.98
1.67V/cell	199.0	125.9	103.0	84.9	59.9	42.4	33.0	18.8	13.9	11.4	9.83	8.61	6.97	5.71	3.03
1.60V/cell	204.4	130.6	106.3	87.3	61.4	43.2	33.7	19.5	14.3	11.7	10.0	8.81	7.11	5.82	3.07

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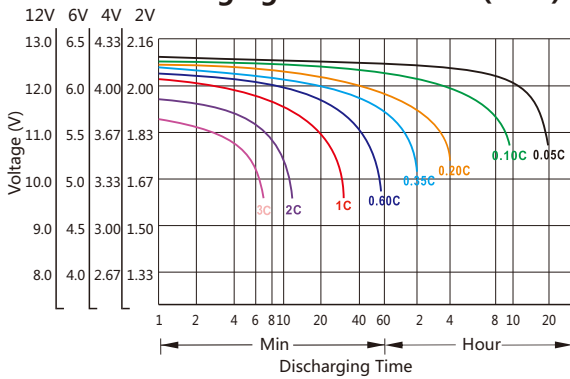


Battery Dimensions(mm)

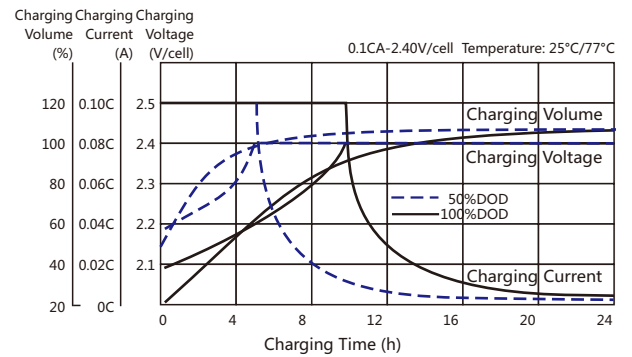


Electrical Characteristics

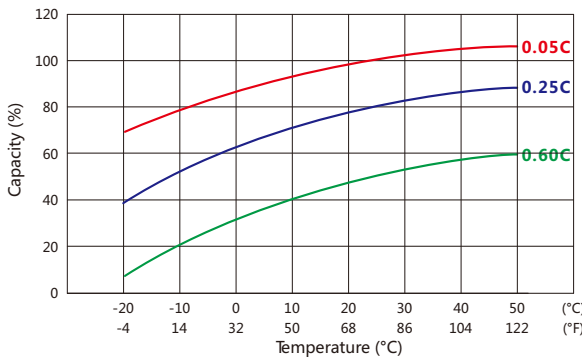
Discharging Characteristics(25°C)



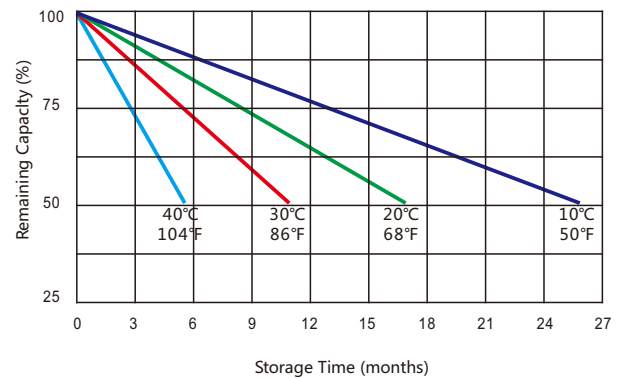
Charging Characteristics(25°C)



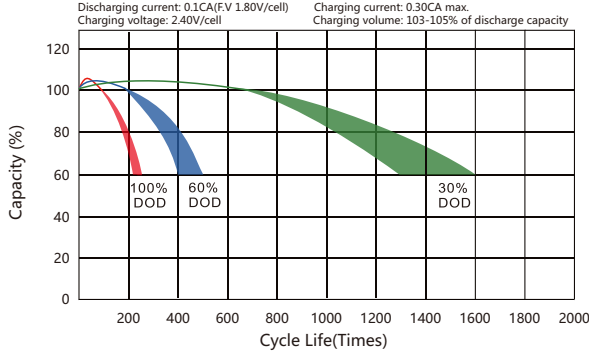
Capacity vs Temperature



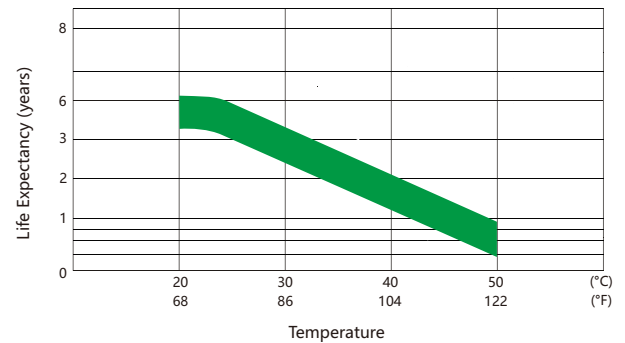
Self-discharge vs Time



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