

- 100% before shipment testing, stable and reliable long-term quality
- Patented grid alloy formula and updated manufacturing technique
- Completely sealed and maintenance-free, low self-discharge
- Excellent charging and re-charging acceptance
- Cycle use: More than 260 cycles at 100% DOD
- Floating & standby use: 3-5 years

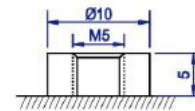


Application:

- *Alarm Systems
- *Cable Televisions
- *Communication Equipments
- *Emergency power systems
- *Security Systems
- *Medical Equipment
- *UPS
- *Power Tools
- *Control Equipment
- *Toys

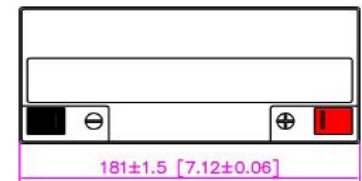
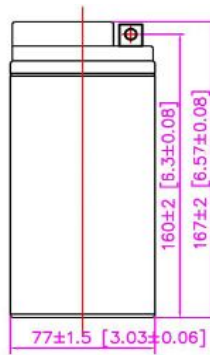
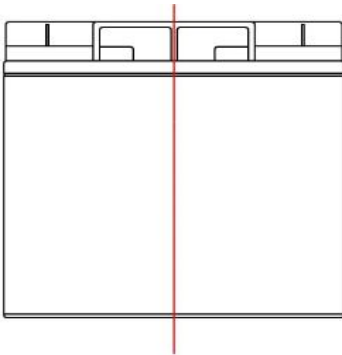
Construction:

Component	Raw material	Sealant	Epoxy
Positive	Lead dioxide	Safety Valve	Rubber
Negative	Lead	Terminal	Copper
Container	ABS	Separator	Fiber glass
Cover	ABS	Electrolyte	Sulfuric acid



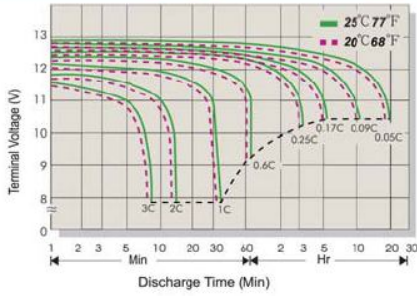
M5 Bolt

B1 Terminal

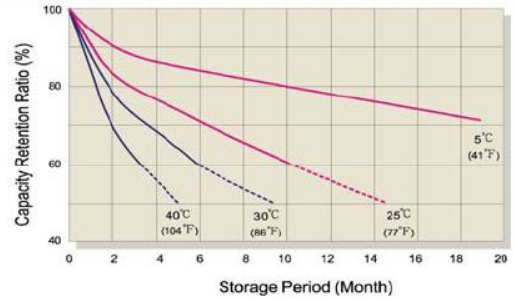


Battery Model	YD 12-20			
Designed Floating Life	3-5 Years			
Capacity (25°C)	20 HR (1.0 A, 10.5 V)	10 HR (1.894 A, 10.5 V)	5 HR (3.399 A, 10.5 V)	1 HR (11.58 A, 10.5 V)
	20.00 AH	18.94 AH	17.00 AH	11.58 AH
Dimensions	Length	Width	Height	Total Height
	181 mm	77 mm	160 mm	167 mm
Approx Weight	5.60 kg ± %3			
Internal Resistance	Full charged @25°C, equal or less than 16.2 mOhm			
Self Discharge	%2 capacity declined per month @25°C			
Capacity Affected By Temperature (20 HR)	40°C	25°C	0°C	-15°C
	%102	%100	%85	%65
Charge Voltage (25°C)	Cycle Use		Float Use	
	14.4-15.0 V (-30 m V/°C), maks. current: 5.0 A		13.5 - 13.8 V (-20 m V/°C)	

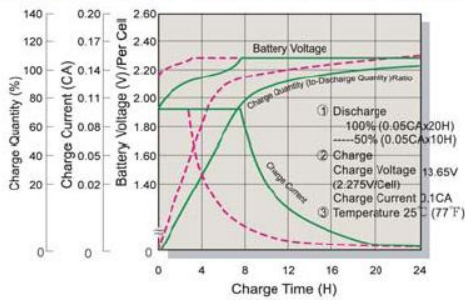
Terminal Voltage (V) and Discharge Time



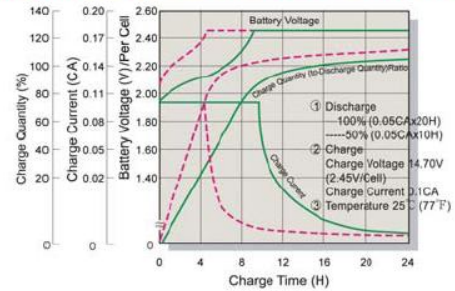
Capacity Retention Characteristic



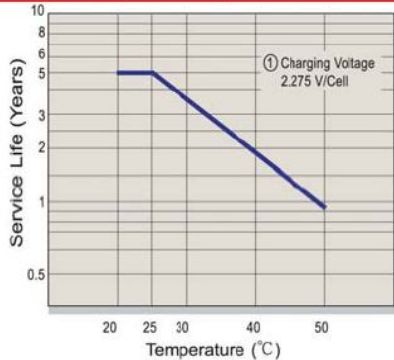
Battery Voltage and Charge Time for Standby Use



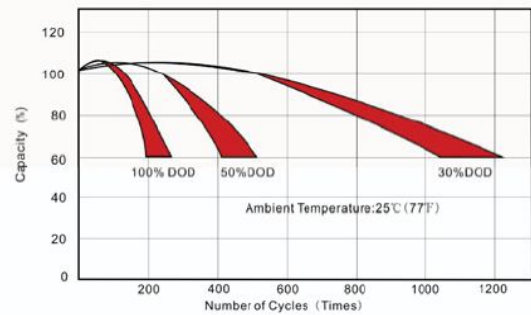
Battery Voltage and Charge Time for Cycle Use



Tickle(or Float) Service Life



Cycle Service Life



Constant Current Discharge(CC,Unit:A) at 25°C(77°F)

F.V/Time	5Min	10Min	15Min	30Min	1Hr	2Hr	3Hr	4Hr	5Hr	6Hr	10Hr	20Hr
1.80V/Cell	65.05	44.90	31.09	19.29	11.37	6.64	5.05	4.017	3.337	2.851	1.859	0.982
1.75V/Cell	66.27	45.74	31.67	19.65	11.58	6.77	5.15	4.092	3.399	2.904	1.894	1.000
1.70V/Cell	68.26	47.11	33.57	20.43	11.78	6.88	5.24	4.164	3.459	2.955	1.928	1.018
1.67V/Cell	70.24	48.48	36.43	21.57	11.91	6.96	5.30	4.209	3.496	2.987	1.948	1.029
1.60V/Cell	72.23	49.86	38.33	22.50	12.04	7.03	5.35	4.254	3.534	3.019	1.969	1.040

Constant Power Discharge (CP,Unit:W) at 25°C(77°F)

F.V/Time	5Min	10Min	15Min	30Min	1Hr	2Hr	3Hr	4Hr	5Hr	6Hr	10Hr	20Hr
1.80V/Cell	126.8	87.55	60.63	37.61	22.17	12.95	9.86	7.83	6.51	5.56	3.63	1.91
1.75V/Cell	129.2	89.19	61.76	38.31	22.58	13.19	10.04	7.98	6.63	5.66	3.69	1.95
1.70V/Cell	133.1	91.87	65.47	39.84	22.98	13.43	10.22	8.12	6.75	5.76	3.76	1.98
1.67V/Cell	137.0	94.54	71.03	42.07	23.22	13.57	10.33	8.21	6.82	5.82	3.80	2.01
1.60V/Cell	140.9	97.22	74.73	43.87	23.48	13.72	10.44	8.30	6.89	5.89	3.84	2.03