

Tubular Gel Battery

20 OPzV2500 (2V2500AH)

Specification

Nominal Voltage	2V	
Capacity	2500.0Ah@10hr to 1.80V/cell	
Dimension	Length	487±2mm (19.2 inches)
	Width	212±3mm (8.35 inches)
	Container Height	772±3mm (30.4 inches)
	Total Height (with Terminal)	807±3mm (31.8 inches)
Approx Weight	Approx 196.0 kg (432.2lbs)	
Container Material	ABS	
Rated Capacity	2500 AH/250.0A	(10hr, 1.80V/cell, 20°C/68°F)
	2140 AH/428A	(5hr, 1.75V/cell, 20°C/68°F)
	1884 AH/628A	(3hr, 1.75V/cell, 20°C/68°F)
	1414 AH/1414A	(1hr, 1.60V/cell, 20°C/68°F)
Max. Discharge Current	20000A (5s)	
Internal Resistance	Approx 0.2mΩ	
Operating Temp. Range	Discharge	-20~55°C (-4~131°F)
	Charge	0~40°C (32~104°F)
	Storage	-20~50°C (-4~122°F)
Cycle Use	Initial Charging Current less than 625.0A. Voltage	
	2.40V~2.50V at 20°C(68°F)Temp. Coefficient -5mV/°C	
Standby Use	No limit on Initial Charging Current Voltage	
	2.25V~2.30V at 20°C(68°F)Temp. Coefficient -3mV/°C	
Self-discharge	<2% pre month @ 20°C(68°F)	



Applications

- ◆ Solar energy, wind energy
- ◆ Electric power, nuclear power
- ◆ Communication
- ◆ Ship, maritime affairs
- ◆ UPS, medical facilities and emergency lighting
- ◆ Situation with high environmental protection and energy-saving
- ◆ Better safety performance and reliability
- ◆ Designed service life of 20 years

Main Technical Advantages

- ◆ Plate: positive plate adopts tubular plate which can prevent active material falling, and adopts multi-component alloy frame. have fine corrosion-resisting performance and long service life. Negative plate adopts special radiated structure.
- ◆ Separator: adopt special micro-pore PVC-SiO₂ separator from Europe AMER-SIL Company, separator have big porosity and low resistance.
- ◆ Electrolyte: adopts Germany gassilicon dioxide, electrolyte in gel state in the battery without flowing, leakage and lamination can be avoided.
- ◆ Safety valve: adopt Germany technology, constant opening and closing, accumulator case expansion, damage and electrolyte dry up can be avoided.

Constant Current Discharge (Amperes) at 20 °C (68 °F)

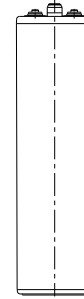
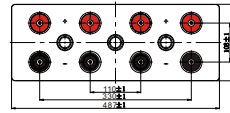
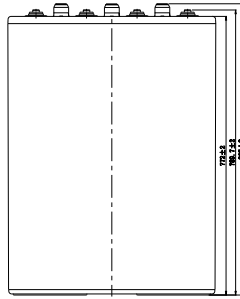
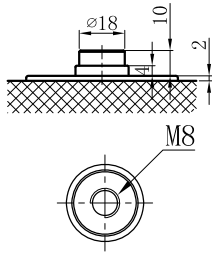
F.V/Time	10min	15min	30min	1h	2h	3h	5h	8h	10h
1.85V/cell	1459	1424	1302	1110	726	565	389	273	234
1.80V/cell	1795	1723	1517	1250	798	614	420	292	250
1.75V/cell	2123	1929	1617	1301	820	628	428	297	254
1.70V/cell	2383	2105	1711	1351	841	641	434	301	257
1.65V/cell	2559	2222	1780	1390	859	653	441	304	259
1.60V/cell	2677	2301	1826	1414	870	661	446	307	261

Constant Power Discharge (Watts) at 20 °C (68 °F)

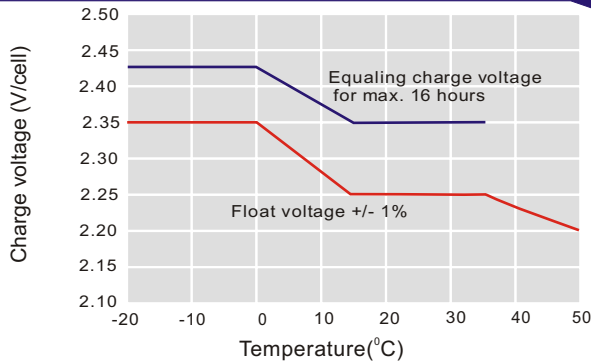
F.V/Time	10min	15min	30min	1h	2h	3h	5h	8h	10h
1.85V/cell	2714	2675	2487	2147	1412	1102	765	540	466
1.80V/cell	3280	3193	2870	2403	1543	1194	822	577	496
1.75V/cell	3814	3523	3028	2484	1577	1216	835	586	504
1.70V/cell	4204	3790	3172	2564	1610	1236	846	592	509
1.65V/cell	4434	3942	3267	2619	1636	1253	855	598	513
1.60V/cell	4550	4023	3316	2647	1649	1262	861	601	516

Dimensions

T11 Terminal

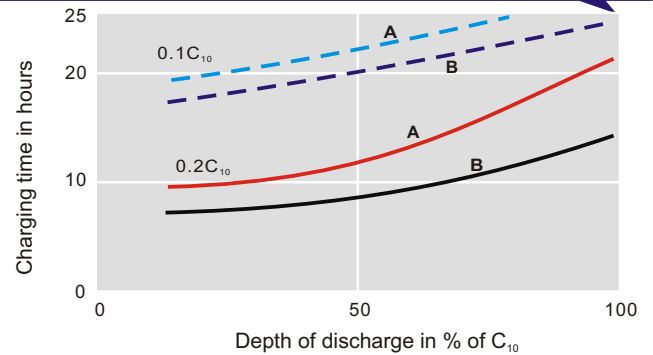


Discharge Characteristics



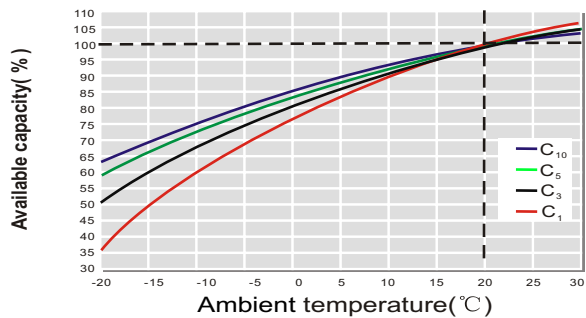
For continuous charging we recommend a voltage of 2.25 V. The charging voltage must be compensated to the curve for continuously different battery ambient temperature.

Charging Characteristics

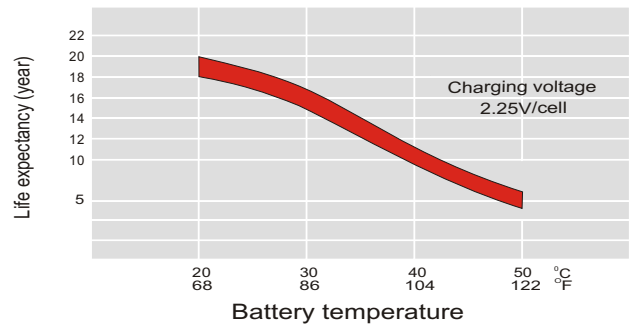


Charge voltage:
 A—2.25 V/cell B—2.40 V/cell
 - - - State of charge 100 % - - - State of charge 90 %

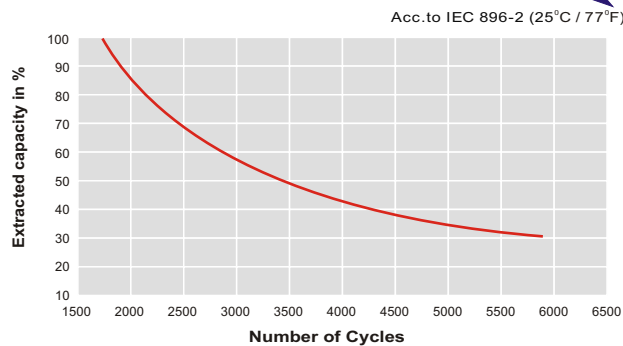
Temperature Effects in Relation to Battery Capacity



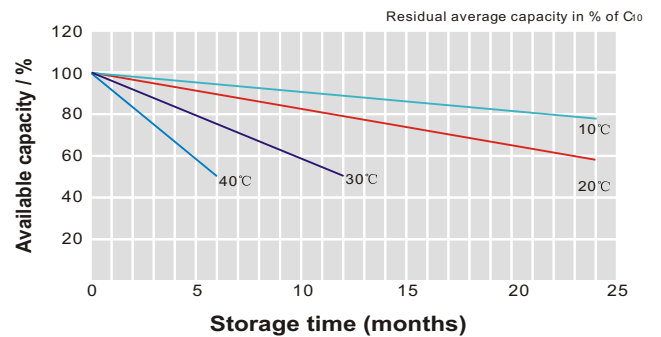
Effect of Temperature on Long Term Float Life



Cycle Life in Relation to Depth of Discharge



General Relation of Capacity VS. Storage Time



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