

7 OPzV500 (2V500AH)

Applications

- ◆ Telecom application (indoor or outdoor BTS)
- ◆ Solar System
- ◆ Wind system
- ◆ Hybrid solution



Design

- ◆ Positive plate: Tubular plate, adopts multi-component alloy frame
- ◆ negative plate: special radiated structure
- ◆ Electrolyte: sulphuric acid fixed as GEL by fumed silica
- ◆ Separator: special microporous PVC-SiO₂ separator
- ◆ Safety valve: valve with flame arrestor

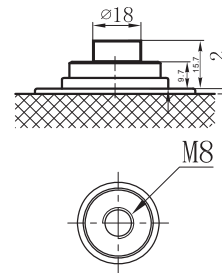
Features

- ◆ Long life: 20 years design life
- ◆ Good deep discharge resilience performance
- ◆ Special plate design, long cycle lifetime
- ◆ High thermal capacity, reduce the risk of thermal out of control and drying hard, can be used in bad environment
- ◆ Flame retardant container UL94-V0

Terminal

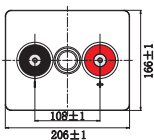
Terminal Model:

Unit: mm



Layout

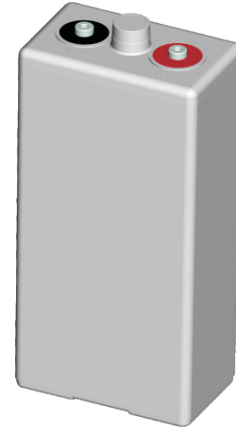
Unit: mm



Tubular GEL Battery-OPzV Series

Specification

Nominal Voltage	2V	
Rated Capacity (Ah)	501.0AH/50.1A	(10hr, 1.80V/cell, 25°C)
	348.0 AH/128.0A	(3hr, 1.75V/cell, 25°C)
	279.0 AH/279.0A	(1hr, 1.60V/cell, 25°C)
Dimension	Length	166 ± 2mm
	Width	206 ± 2mm
	Container Height	471 ± 2mm
	Total Height	506 ± 2mm
Approx Weight	Approx 39.0 kg	
Terminal	Material: Copper	
Container Material	ABS	
Max. Discharge Current	4800A (5s)	
Internal Resistance	Approx 0.73mΩ	
Operating Temp. Range	Discharge: -20~55°C Charge: 0~40°C Storage: -20~50°C	
Capacity Affected by Temperature	40°C	103%
	25°C	100%
	0°C	86%
Cycle Use	Initial Charging Current less than 122.5A.	
	Voltage: 2.4V at 25°C	Temp. coefficient -5mV/°C
Standby Use	Equalization voltage: 2.35V at 25°C	Temp. coefficient -3mV/°C
	Float voltage: 2.25V at 25°C	Temp. coefficient -3mV/°C
Self Discharge	<2% per month @ 25°C.	



ISO9001



ISO14001

Performance

Constant Current Discharge (Amperes) at 25 °C (77°F)

F.V/Time	10min	15min	30min	1h	2h	3h	5h	8h	10h
1.85V/cell	384	354	289	219	147	113	77.6	54.2	47.9
1.80V/cell	472	429	337	247	162	123	83.7	58.0	50.1
1.75V/cell	559	480	359	257	166	126	85.3	59.0	50.9
1.70V/cell	627	523	380	267	170	129	86.7	59.8	51.3
1.65V/cell	673	553	395	274	174	131	88.0	60.5	51.9
1.60V/cell	704	572	405	279	176	133	88.9	61.0	52.5

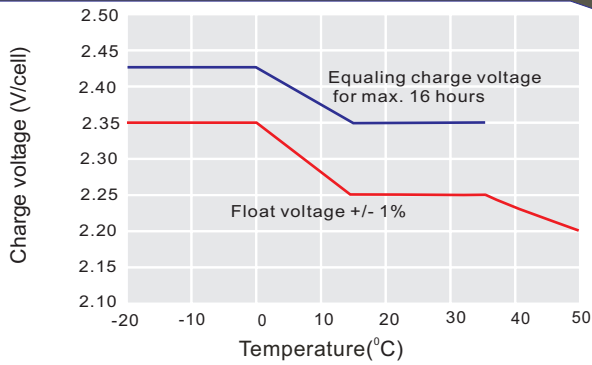
Constant Power Discharge (Watts/cell) at 25 °C (77°F)

F.V/Time	10min	15min	30min	1h	2h	3h	5h	8h	10h
1.85V/cell	714	665	552	424	286	221	153	107	93.3
1.80V/cell	863	794	637	474	313	240	164	115	99.3
1.75V/cell	1003	876	672	491	320	244	167	116	100.7
1.70V/cell	1106	942	704	506	326	248	169	118	101.9
1.65V/cell	1166	980	725	517	332	252	171	119	103.1
1.60V/cell	1197	1000	736	523	334	253	172	120	104.2

Tubular GEL Battery-OPzV Series

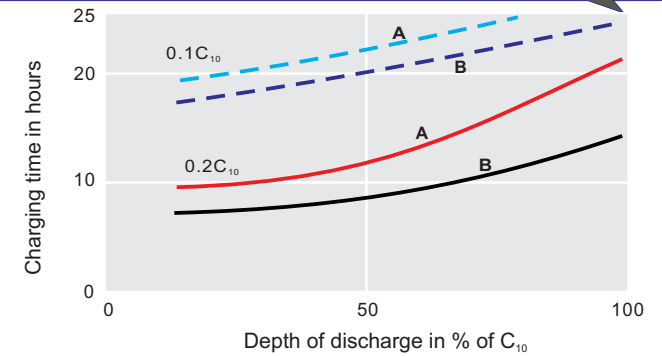
Characteristic Curve

Discharge Characteristics



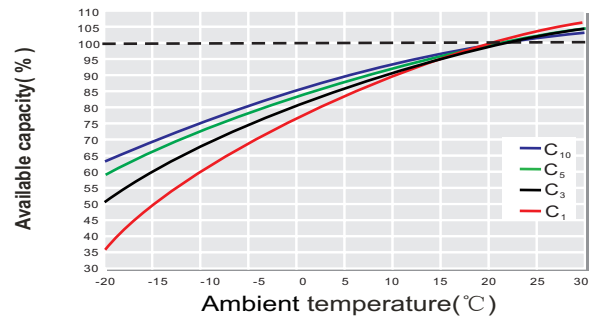
For continuous charging we recommend a voltage of 2.25 V. The charging voltage must be compensated to the curve for continuously different battery ambient temperature.

Charging Characteristics

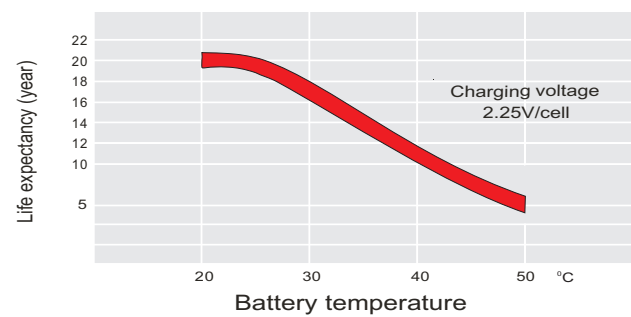


Charge voltage:
A—2.25 V/cell B—2.40 V/cell
--- State of charge 100 % — State of charge 90 %

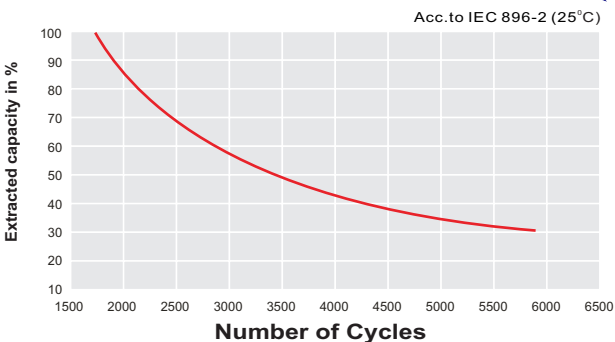
Temperature Effects in Relation to Battery Capacity



Effect of Temperature on Long Term Float Life



Cycle Life in Relation to Depth of Discharge



General Relation of Capacity VS. Storage Time

