

6 OPzV420 (2V420AH)

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

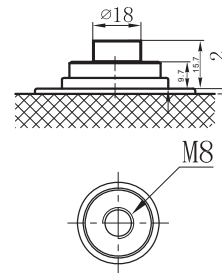
Features

- ◆ 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

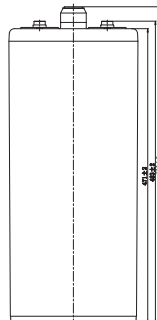
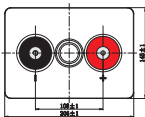
Terminal Model:

Unit: mm



Layout

Unit: mm



Tubular GEL Battery-OPzV Series

Specification

Nominal Voltage	2V	
Rated Capacity (Ah)	420.0 AH/42.0A	(10hr, 1.80V/cell, 25°C)
	324.0 AH/108.0A	(3hr, 1.75V/cell, 25°C)
	239.0 AH/239.0A	(1hr, 1.60V/cell, 25°C)
Dimension	Length	145 ± 2mm
	Width	206 ± 2mm
	Container Height	471 ± 2mm
	Total Height	506 ± 2mm
Approx Weight	Approx 34.0 kg	
Terminal	Material: Copper	
Container Material	ABS	
Max. Discharge Current	3360A (5s)	
Internal Resistance	Approx 0.8mΩ	
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 105.0A.	
	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	329	303	248	188	126	97.2	66.5	46.4	39.3
1.80V/cell	405	367	289	212	139	106	71.8	49.7	42.0
1.75V/cell	479	411	308	220	142	108	73.1	50.6	42.7
1.70V/cell	537	449	326	229	146	110	74.3	51.2	43.2
1.65V/cell	577	474	339	235	149	112	75.4	51.8	43.6
1.60V/cell	604	490	347	239	151	114	76.2	52.3	43.9

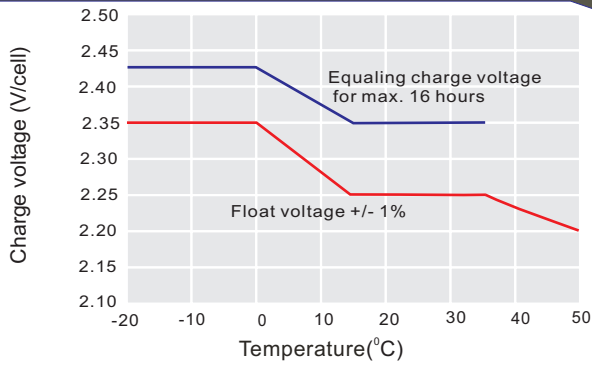
Constant Power Discharge (Watts/cell) at 25 °C (77°F)

F.V/Time	10min	15min	30min	1h	2h	3h	5h	8h	10h
1.85V/cell	612	570	473	363	245	190	131	92	78.2
1.80V/cell	740	680	546	407	268	206	141	98.4	83.4
1.75V/cell	860	751	576	420	274	209	143	99.8	84.6
1.70V/cell	948	808	604	434	280	213	145	101	85.4
1.65V/cell	1000	840	621	443	284	216	146	102	86.2
1.60V/cell	1026	857	631	448	286	217	147	102	86.6

Tubular GEL Battery-OPzV Series

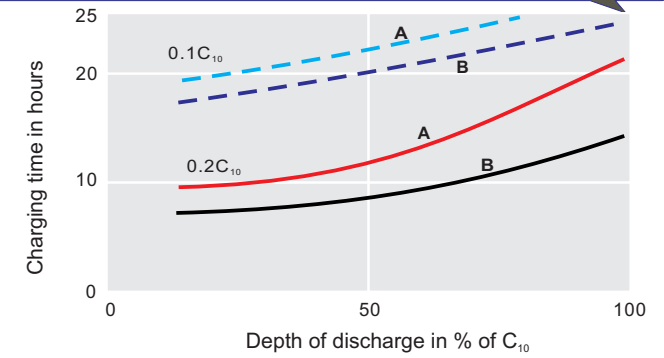
Characteristic Curve

Discharge Characteristics



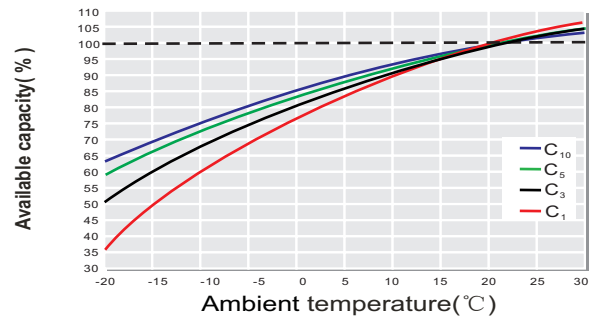
For continuous charging we recommend a voltage of 2.25 V. The charging voltage must be compensated to the curve for continuously different battery ambient temperature.

Charging Characteristics

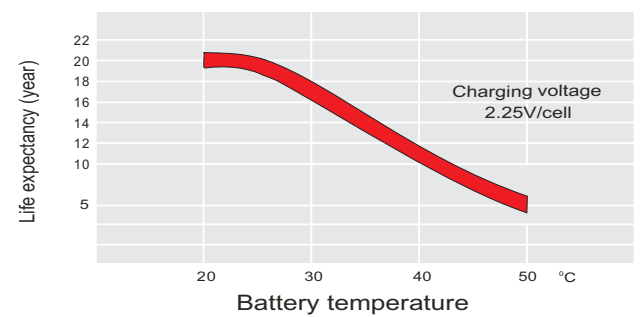


Charge voltage:
A—2.25 V/cell B—2.40 V/cell
--- State of charge 100 % — State of charge 90 %

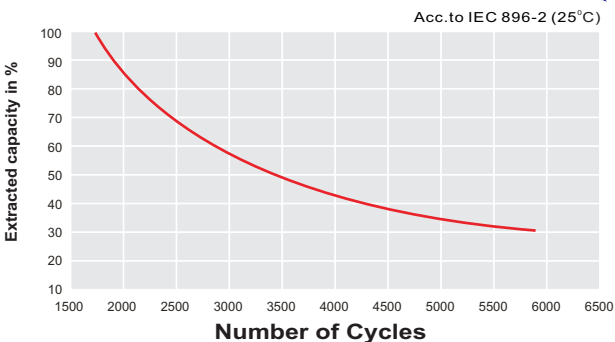
Temperature Effects in Relation to Battery Capacity



Effect of Temperature on Long Term Float Life



Cycle Life in Relation to Depth of Discharge



General Relation of Capacity VS. Storage Time

