

## Specification

Nominal Voltage	2V	
Capacity(10HR)	437.0AH (1.8V/cell,20°C)	
Dimension	Length	145±2mm (5.71 inches)
	Width	206±3mm (8.11 inches)
	Container Height	471±3mm (18.5 inches)
	Total Height (with Terminal)	526±3mm (20.7 inches)
	Without Electrolyte	24.5 kg (54.0lbs)
Approx Weight	With Electrolyte 32.7 kg (72.1lbs)	
Container Material	SAN transparent container	
Rated Capacity	437.0 AH/43.7A	(10hr, 1.80V/cell, 20°C/68°F)
	395.0 AH/79.0A	(5hr, 1.75V/cell, 20°C/68°F)
	348.0 AH/116.0A	(3hr, 1.75V/cell, 20°C/68°F)
	287.7 AH/287.7A	(1hr, 1.60V/cell, 20°C/68°F)
Max. Discharge Current	3360A (5s)	
Internal Resistance (mΩ)	Approx 0.58	
Operating Temp.Range	Discharge	-15~55°C (5~131°F)
	Charge	0~45°C (32~113°F)
	Storage	-15~45°C (5~113°F)
Type and number of poles	M8/2	
Charging	Floating voltage: 2.23V~2.25V at 20°C(68°F)Temp.	
	Boost charge: 2.30V~2.40V at 20°C(68°F)Temp.	
	Charging current(max.): 0.1CA	
	Temp.Coefficient -3mV/°C	
Capacity affected by Temperature	40°C (104°F)	103%
	25°C (77°F)	100%
	0°C (32°F)	86%
Self Discharge (4% per month)	OPzS batteries may be stored for up to 6 months at 20°C(68°F) and then a freshening charge is required. For higher temperatures the time interval will be shorter.	

## Applications

- ◆ Telecommunications.
- ◆ Radio and cellular telephone relay stations.
- ◆ Emergency lighting systems.
- ◆ Power stations, Conventional power stations,
- ◆ Alternative power (solar , wind)
- ◆ Large UPS and computer back-up.
- ◆ Railway signalling.
- ◆ Maritime standby power on ships and ashore.
- ◆ Standby power
- ◆ Buoy lighting.
- ◆ Long service life,  
Designed life: 20 years.

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

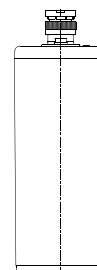
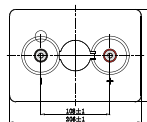
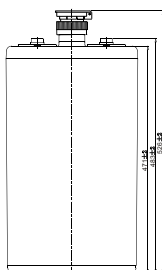
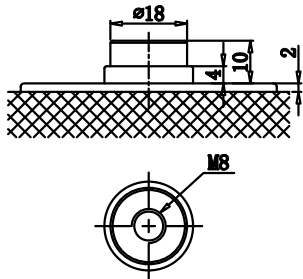
F.V/Time	30min	45min	1h	1.5h	2h	3h	4h	5h	6h	8h	10h	20h
1.60V/cell	441.0	350.6	287.7	213.4	170.3	123.7	99.3	84.0	72.5	57.1	47.0	25.8
1.65V/cell	414.1	337.1	278.0	207.2	166.5	121.9	98.0	82.4	71.6	56.2	46.2	25.4
1.70V/cell	376.3	311.4	264.2	200.5	162.3	119.4	96.1	81.1	70.5	55.5	45.4	25.1
1.75V/cell	336.0	285.0	246.1	191.2	156.2	116.0	93.9	79.0	69.2	55.0	44.8	24.7
1.80V/cell	295.9	248.6	217.2	174.2	146.5	109.1	90.2	76.4	67.0	53.9	43.7	24.4
1.85V/cell	236.7	206.6	181.4	149.5	129.2	101.2	83.8	71.6	63.1	50.8	42.0	23.6

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

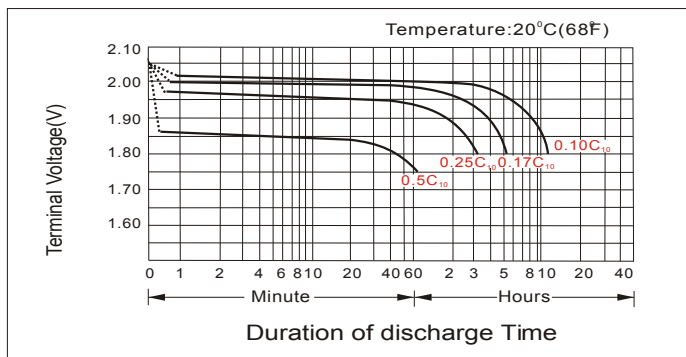
F.V/Time	30min	45min	1h	1.5h	2h	3h	4h	5h	6h	8h	10h	20h
1.60V/cell	752.8	613.5	510.8	383.6	309.7	226.5	183.5	156.3	135.8	107.4	88.7	48.8
1.65V/cell	722.3	596.9	497.8	374.4	304.4	224.4	181.9	154.1	134.8	106.2	87.7	48.3
1.70V/cell	665.3	557.1	476.5	364.6	298.0	220.8	179.0	152.2	133.1	105.3	86.4	47.9
1.75V/cell	604.0	515.5	448.1	350.3	288.9	215.8	175.8	149.1	131.0	104.7	85.8	47.4
1.80V/cell	539.2	456.5	400.5	322.7	273.3	204.6	169.9	144.8	127.7	103.2	84.0	47.2
1.85V/cell	438.5	384.9	339.4	280.8	243.6	191.9	159.5	136.9	121.2	97.9	81.4	45.9

Dimensions

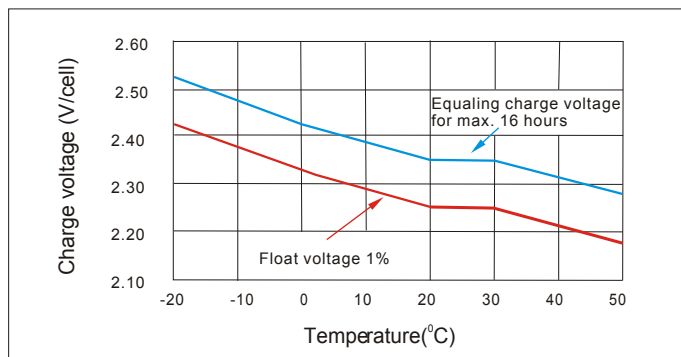
Terminal



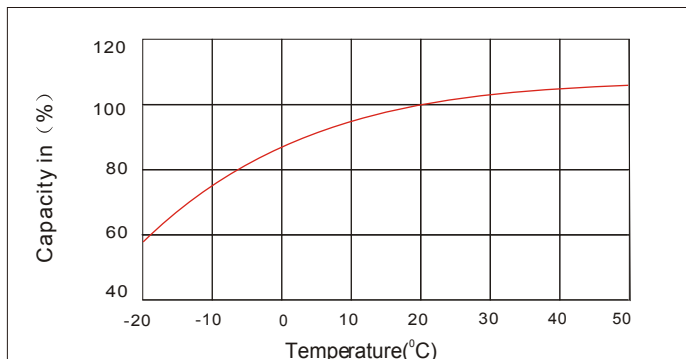
Discharge Characteristics



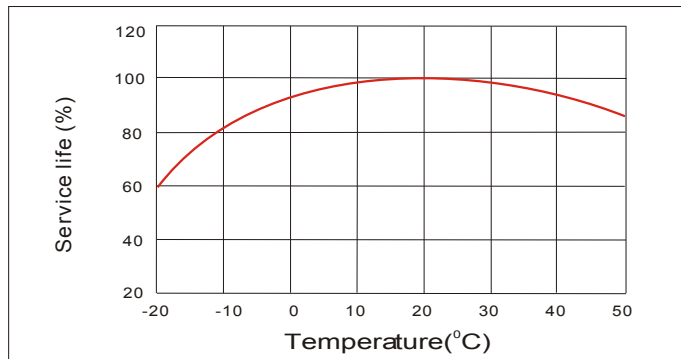
Charge voltage Vs ambient temperature curve



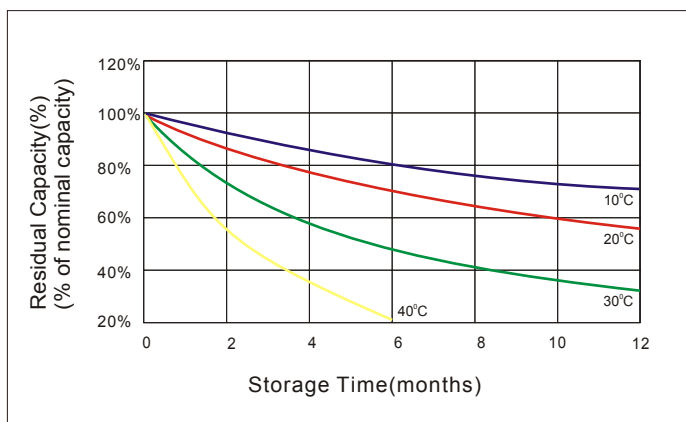
Discharge capacity Vs Ambient temperature curve (10A)



Relation curves of service life and ambient temperature



Self Discharge Characteristics



- A** No supplementary charge required (Carry out supplementary charge before use if 100% capacity is required.)
- B** Supplementary charge required before use. Optional charging way as below:
  - Charged for above 3 days at current 0.1C A and constant voltage 2.25V/cell.
  - Charged for above 20hours at current 0.1C A and constant voltage 2.45V/cell.
  - Charged for 8~10hours at limited current 0.05CA .
- C** Supplementary charge may often fail to recover the capacity. The battery should never be left standing till this is reached.