



# Solar Series-Tubular Gel

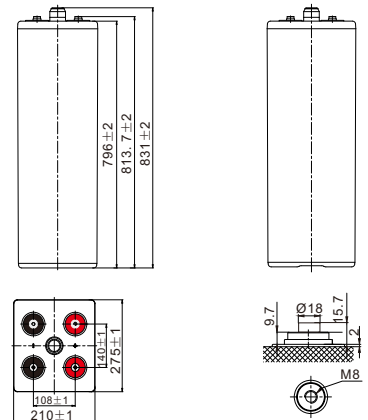
## 12 OPzV1500(2V1950Ah)



### Specifications

Rated Voltage	2V	
Nominal Capacity	1950Ah	(C <sub>100</sub> , 1.80V/cell)
Dimension	Length	275mm(10.83 in.)
	Width	210mm(8.27 in.)
	Container Height	796mm(31.34 in.)
	Total Height	831mm(32.72 in.)
Approx Weight	115.0Kg (253.53 lbs)	
Terminal	M8	
Container Material	ABS	
Rated Capacity (25°C)	2028.0 Ah	(120hr, 16.9A, 1.80V/cell)
	1950.0 Ah	(100hr, 19.5A, 1.80V/cell)
	1872.0 Ah	(72hr, 26.0A, 1.80V/cell)
	1560.0 Ah	(10hr, 150.0A, 1.80V/cell)
Max. Discharge Current (5s)	12000A	
Internal Resistance(25°C)	Approx.0.38mΩ	
Operating Temp.Range	Discharge	-20°C~55°C (-4°F~131°F)
	Charge	0°C~40°C (32°F~104°F)
	Storage	-20°C~50°C (-4°F~122°F)
Nominal Operating Temp. Range	25±3°C (77±5°F)	
Max.Charging Current(25°C)	375.0A	
Charge voltage(25°C)	Float	2.25V
	Temp. Coefficient	-3mV/cell/°C
	Cycle(Equalization)	2.35~2.40V
Effect of temp. to Capacity	40°C (104°F)	106%
	25°C (77°F)	100%
	0°C (32°F)	86%
Self Discharge	≤3% per month at 25°C	

### Layout



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

F.V/Time	1h	2h	3h	5h	8h	10h	24h	48h	72h	100h	120h
1.85V/cell	670.4	453.3	348.0	238.1	166.9	140.6	66.8	34.9	25.1	19.0	16.4
1.80V/cell	751.5	496.5	378.5	256.5	178.5	150.0	69.1	36.3	26.0	19.5	16.9
1.75V/cell	781.4	513.8	387.1	261.6	181.5	152.6	69.5	37.1	26.7	19.9	17.1
1.70V/cell	815.5	526.7	394.8	265.5	184.1	154.3	70.6	37.8	27.0	20.2	17.4
1.67V/cell	836.9	535.4	402.1	269.8	186.3	155.6	71.3	38.2	27.2	20.5	17.6
1.60V/cell	849.7	544.0	406.9	272.4	187.6	156.9	71.9	38.6	27.4	20.7	17.8

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

F.V/Time	1h	2h	3h	5h	8h	10h	24h	48h	72h	100h	120h
1.85V/cell	1293.8	880.7	678.8	467.5	330.7	279.4	133.4	69.9	50.4	38.2	33.0
1.80V/cell	1447.5	962.8	734.7	501.8	353.6	297.9	137.8	72.5	52.2	39.2	33.9
1.75V/cell	1494.5	984.4	747.5	510.4	358.7	302.1	138.6	74.0	53.5	39.9	34.4
1.70V/cell	1545.7	1006.0	760.4	519.0	362.6	305.1	140.7	75.4	54.0	40.4	34.8
1.67V/cell	1575.6	1023.2	773.3	523.3	366.1	307.7	141.8	76.1	54.3	41.1	35.2
1.60V/cell	1592.7	1031.9	777.6	527.6	367.8	309.4	142.8	76.8	54.6	41.5	35.6



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### Applications

- Green energy systems (solar, wind, hydro, etc)
- Telecommunications installations
- Solar power stations
- Alarm installations
- Railway crossing
- Street lightening
- Pump systems
- Signal station
- Street signs
- Traffic lights
- Lawn lamp

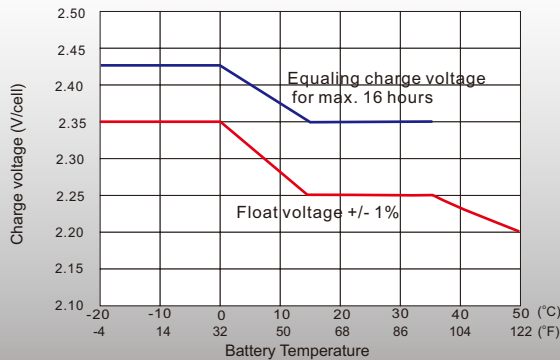
### General Features

- 20 years design life(20°C)
- Better recovery performance
- Wide working temperature range (-20~55°C)
- No electrolyte stratification provides longer service life
- High recombination efficient
- Built in copper core based in lead will carry large current
- Separator imported form AMER-SIL high porosity. PVC-SiO<sub>2</sub> and low resistance
- Pasted negative plate special grid design increase the active material. availability large current discharge and charge ability
- Tubuler type positive plate (polyester tube) prevent the active material from falling. Muti metal alloy pressed positive grid increase the anti corrosion ability and service life

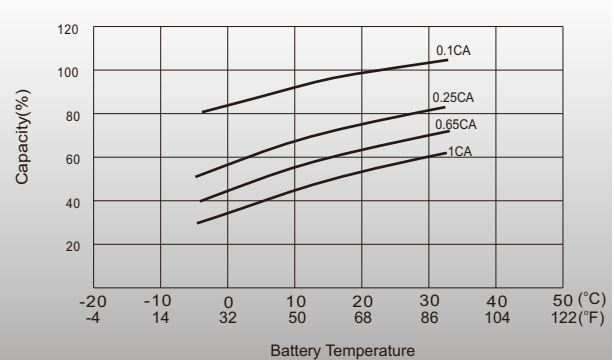
### Standards

- Compliance with IEC 60896, IEC 61427, DIN 40742 standards
- UL, CE Certified
- Manufactured in Leoch@IATF16949, OHSAS 18001, ISO 9001 and ISO 14001 certified production facilities

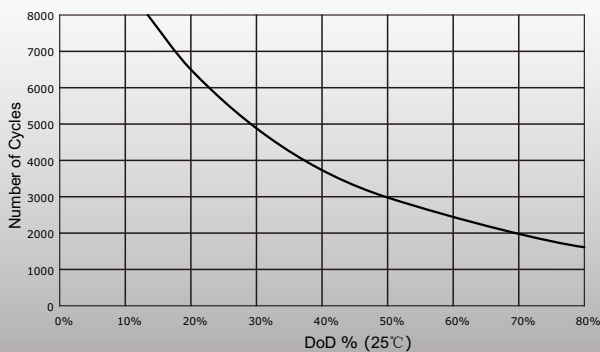
### Charge voltage vs ambient temperature curve



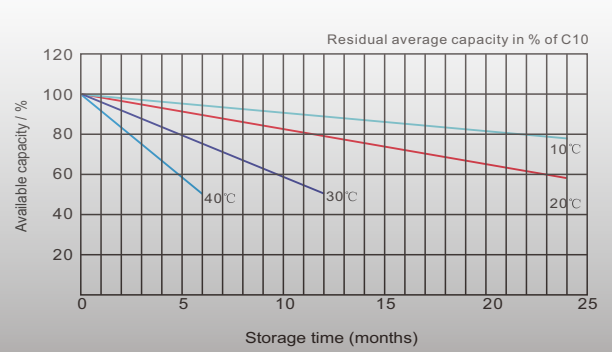
### Temperature effects in relation to battery capacity



### Cycle Life in Relation to DOD



### General Relation of Capacity VS. Storage Time



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