



# Solar Series-Tubular Gel

## 12V 30PzV100FT(12V120Ah)

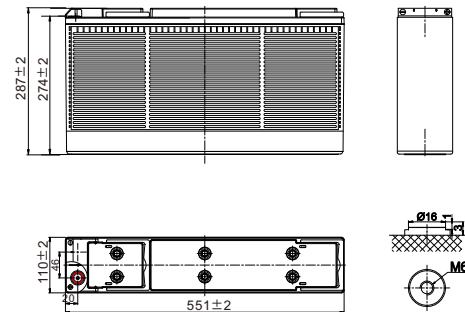


### Specifications

Rated Voltage	12V	
Nominal Capacity	120Ah	(C <sub>100</sub> , 1.80V/cell)
Dimension	Length	551mm(21.69 in.)
	Width	110mm(4.33 in.)
	Container Height	274mm(10.79 in.)
	Total Height	287mm(11.30 in.)
Approx Weight	39.7Kg (87.52 lbs)	
Terminal	M6	
Container Material	ABS	
Rated Capacity (25°C)	130.8 Ah	(120hr, 1.09A, 1.80V/cell)
	120.0 Ah	(100hr, 1.20A, 1.80V/cell)
	116.64Ah	(72hr, 1.62A, 1.80V/cell)
	100.0 Ah	(10hr, 10.0A, 1.80V/cell)
Max. Discharge Current (5s)	1000A	
Internal Resistance(25°C)	Approx.6.5mΩ	
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)	30.0A	
Charge voltage(25°C)	Float	13.5V
	Temp. Coefficient	-3mV/cell/°C
	Cycle(Equalization)	14.1~14.4V
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	4h	5h	8h	10h	20h	24h	48h	72h	100h	120h
1.85V/cell	46.5	29.5	22.5	18.6	16.1	11.3	9.57	5.12	4.55	2.34	1.58	1.17	1.07
1.80V/cell	51.0	31.9	24.1	19.7	16.9	11.8	10.0	5.35	4.62	2.37	1.62	1.20	1.09
1.75V/cell	54.3	33.5	25.2	20.7	17.5	12.1	10.2	5.46	4.71	2.41	1.65	1.23	1.11
1.70V/cell	57.4	34.7	26.2	21.4	18.0	12.3	10.3	5.53	4.78	2.46	1.71	1.25	1.14
1.67V/cell	59.3	35.9	27.1	21.9	18.4	12.5	10.5	5.59	4.87	2.53	1.75	1.28	1.16
1.60V/cell	61.1	37.1	27.7	22.4	18.8	12.7	10.7	5.65	4.97	2.57	1.78	1.32	1.19

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

F.V/Time	1h	2h	3h	4h	5h	8h	10h	20h	24h	48h	72h	100h	120h
1.85V/cell	90.5	57.6	44.0	36.6	31.7	22.4	19.1	10.2	9.10	4.68	3.17	2.35	2.15
1.80V/cell	98.8	62.1	47.0	38.7	33.2	23.4	19.9	10.7	9.22	4.73	3.24	2.41	2.19
1.75V/cell	104.6	65.0	49.2	40.4	34.4	24.0	20.3	10.9	9.39	4.82	3.31	2.46	2.23
1.70V/cell	110.0	67.0	50.8	41.6	35.2	24.4	20.5	11.0	9.52	4.91	3.42	2.51	2.29
1.67V/cell	113.0	68.9	52.4	42.5	35.9	24.7	20.8	11.1	9.70	5.05	3.49	2.57	2.33
1.60V/cell	115.8	70.9	53.3	43.3	36.6	25.1	21.1	11.2	9.87	5.11	3.56	2.64	2.39



# Solar Series-Tubular Gel

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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

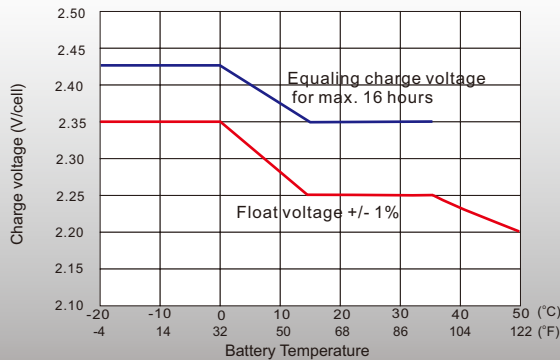
### General Features

- 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
- Build 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

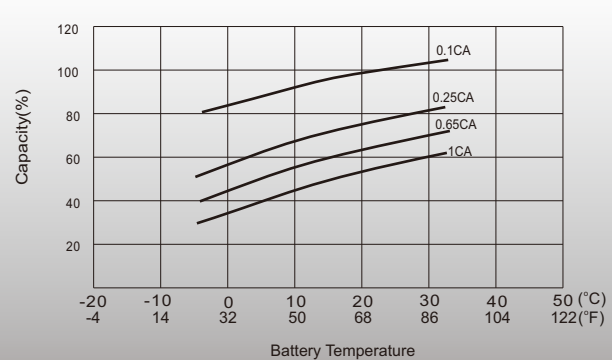
### Standards

- Compliance with IEC 60896, IEC 61427, DIN 40742 standards
- CE, IEC Certified
- Manufactured in Leoch@IATF16949, ISO 45001, ISO 9001 and ISO 14001 certified production facilities

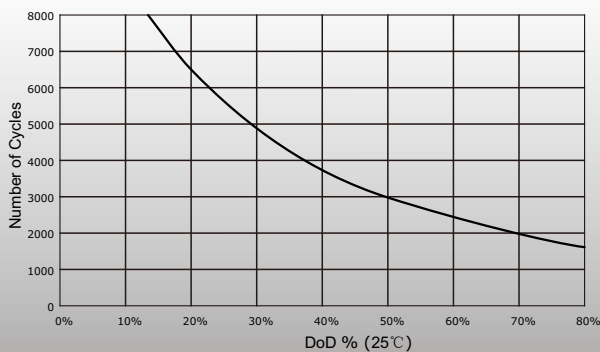
### Charge voltage vs ambient temperature curve



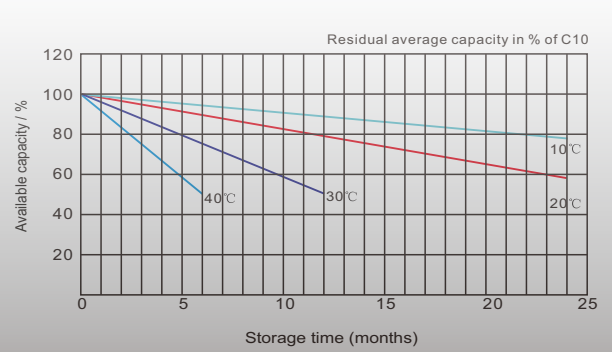
### Temperature effects in relation to battery capacity



### Cycle Life in Relation to DOD



### General Relation of Capacity VS. Storage Time



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