



***SEALED PERFORMANCE BATTERIES***

**PROVIDING SEALES LEAD ACID BATTERY FOR SOLAR ENERGY**

 **VOLTINGER**  
SOLAR BATTERIES

# VOLTINGER SOLAR Battery

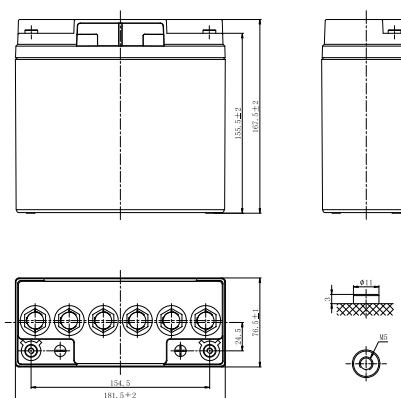
## SRG20012V18AH(12V18Ah)

### Specifications

Rated Voltage	12V	
Nominal Capacity	C <sub>20</sub> , 1.80V/cell	17Ah
Dimension	Length	181.5±2mm (7.15 inches)
	Width	76.5±1mm (3.01 inches)
	Container Height	167.5±2mm (6.59 inches)
	Total Height	167.5±2mm (6.59 inches)
Approx Weight	5.7 Kg (125 lbs)	
Terminal	T3	
Container Material	ABS	
Rated Capacity(25°C)	17.0 Ah	C20(0.85A, 1.80V/cell)
	15.5 Ah	C10(1.55A, 1.80V/cell)
	13.6 Ah	C5(2.72A, 1.75V/cell)
	11.8 Ah	C3(3.94A, 1.75V/cell)
	9.93 Ah	C1(9.93A, 1.60V/cell)
Max. Discharge Current	225A (5s)	
Internal Resistance(25°C)	Approx 18.0mΩ	
Operating Temp. Range	Discharge	-20 ~ 55°C (-4 ~ 131°F)
	Charge	-20 ~ 40°C (-4 ~ 104°F)
	Storage	-15 ~ 50°C (5 ~ 122°F)
Nominal Operating Temp. Range	25±3°C (77±5°F)	
Standby Use	Initial Charging Current less than 4.25A. Voltage 2.23V~2.27V at 25°C(77°F)Temp. Coefficient -3mV/°C	
Equalization Use	Initial Charging Current less than 4.25A. Voltage 2.30V~2.37V at 25°C(77°F)Temp. Coefficient -4mV/°C	
Cycle Use	Initial Charging Current less than 4.25A. Voltage 2.40V~2.50V at 25°C(77°F)Temp. Coefficient -5mV/°C	
Effect of temp. to Capacity	40°C (104°F)	103%
	25°C (77°F)	100%
	0°C (32°F)	86%
Self Discharge	SRG20012V18AH batteries may be stored for up to 6 months at 25°C (77°F) and then a freshening charge is required. For higher temperatures the time interval will be shorter.	



### Layout



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

F.V/Time	20min	30min	45min	1h	2h	3h	4h	5h	6h	7h	8h	9h	10h	20h
1.85V/cell	14.4	11.3	8.61	7.21	4.57	3.49	2.89	2.49	2.15	1.90	1.72	1.57	1.48	0.82
1.80V/cell	16.5	12.6	9.50	7.96	4.95	3.73	3.06	2.62	2.26	1.99	1.80	1.65	1.55	0.85
1.75V/cell	18.5	13.9	10.3	8.52	5.24	3.94	3.20	2.72	2.34	2.06	1.86	1.70	1.58	0.87
1.70V/cell	19.9	14.9	10.9	9.01	5.56	4.11	3.31	2.81	2.42	2.13	1.91	1.75	1.62	0.88
1.67V/cell	20.8	15.4	11.3	9.35	5.70	4.24	3.39	2.86	2.46	2.16	1.94	1.77	1.64	0.89
1.60V/cell	22.5	16.5	12.1	9.93	5.93	4.41	3.52	2.95	2.52	2.21	1.98	1.81	1.67	0.90

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

F.V/Time	20min	30min	45min	1h	2h	3h	4h	5h	6h	7h	8h	9h	10h	20h
1.85V/cell	27.5	21.8	16.7	14.0	8.94	6.83	5.68	4.92	4.26	3.78	3.42	3.13	2.96	1.63
1.80V/cell	31.1	24.1	18.3	15.4	9.63	7.29	5.99	5.15	4.46	3.95	3.57	3.28	3.09	1.69
1.75V/cell	34.6	26.2	19.6	16.4	10.2	7.68	6.26	5.33	4.60	4.07	3.68	3.37	3.14	1.73
1.70V/cell	36.9	27.9	20.7	17.3	10.7	7.98	6.45	5.48	4.75	4.20	3.78	3.46	3.21	1.75
1.67V/cell	37.9	28.6	21.3	17.8	11.0	8.20	6.59	5.58	4.82	4.25	3.83	3.50	3.25	1.76
1.60V/cell	40.6	30.4	22.7	18.8	11.3	8.49	6.81	5.74	4.92	4.33	3.89	3.57	3.31	1.78

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## SRG20012V18AH(12V18Ah)

### Applications

- Solar Energy system
- Renewable energy
- Wind power system
- of-grid projects

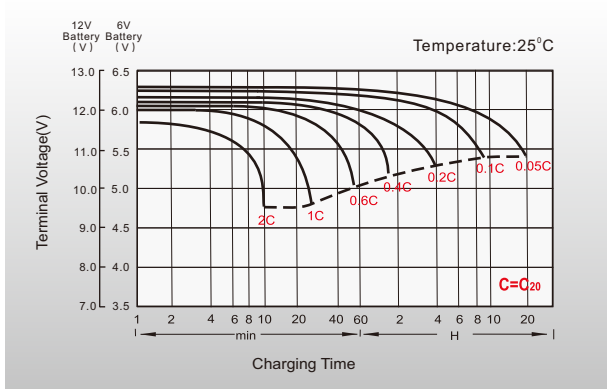
### General Features

- Battery design life up to 8 years
- Special plate design guarantees battery floating life more than 4000 times
- High thermal capacity reduce the risk of thermal out of control and drying hard, and the battery can be used in bad environment
- Advanced GEL and higher technology for Solar application

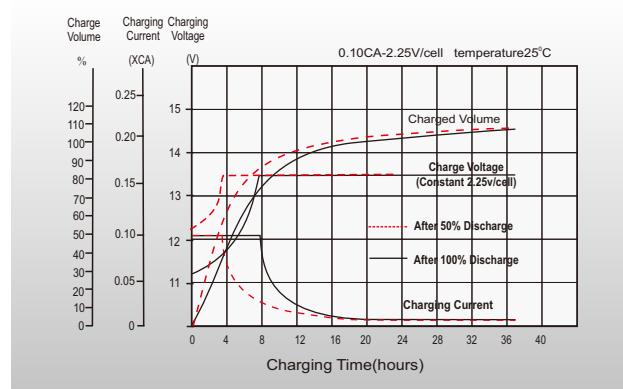
### Standards

- IEC 60896-21, IEC 60896-22
- Classified as "Long Life" according to Eurobat
- UL Certified
- Manufactured in Leoch® IATF16949, ISO 9001, ISO 14001 and ISO 45001 certified production facilities

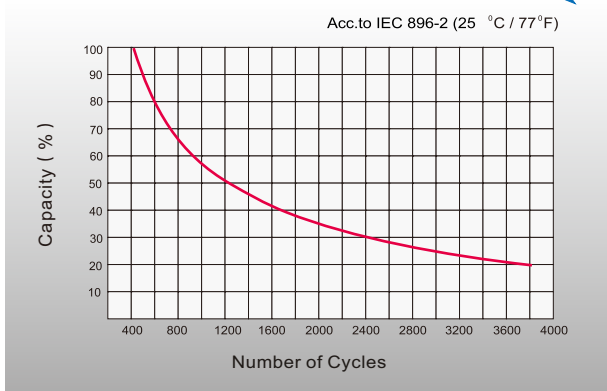
### Discharge Characteristics



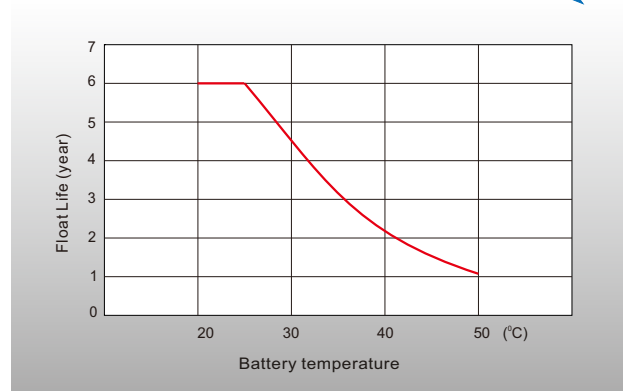
### Float Charging Characteristics



### Cycle Life in Relation to Depth of Discharge



### Effect of Temperature on Long Term Float Life



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