

Powered by

# SG12140T2 ▶ 12V14Ah



SG series batteries use high purity raw materials and low density electrolyte to make the batteries have good cycle performance and low self-discharge rate. It is suitable for UPS, telecom system, electric power system



## Specifications

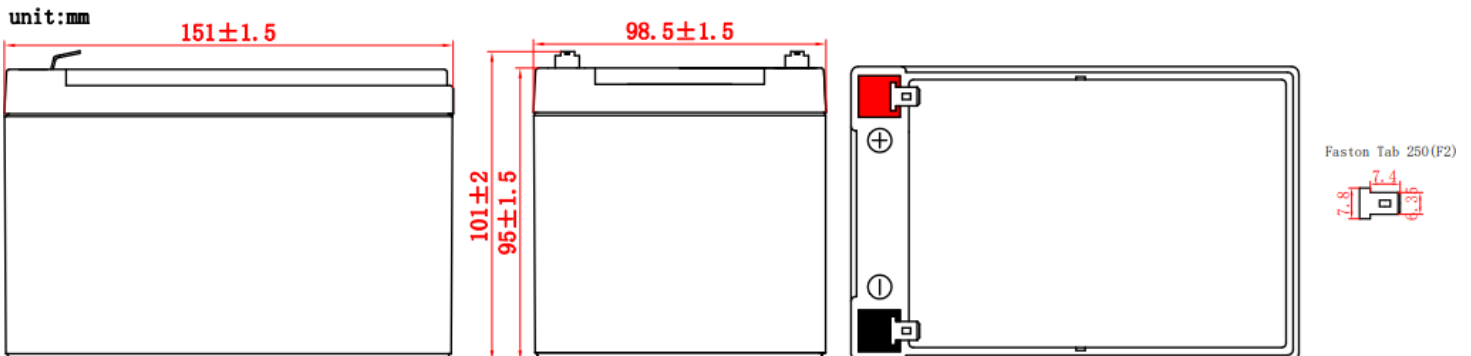
Cells Per Unit	6
Voltage Per Unit	12
Capacity	14Ah @ 20hr-rate to 1.75V per cell @25°C (77°F)
Weight	Approx. 4.0 kg(8.8 lbs) – Tolerance±5%
Maximum Discharge Current	210A(5sec)
Internal Resistance	Approx. 11 mΩ
Operating Temperature Range	Discharge: -15°C~50°C ( 5°F~122°F) Charge: -15°C~40°C ( 5°F~104°F) Storage: -15°C~40°C ( 5°F~104°F)
Nominal Operating Temperature Range	25°C±3°C (77°F±5°F)
Float Charging Voltage	13.5 to 13.8 VDC/unit Average at 25°C (77°F)
Recommended Maximum Charging Current Limit	4.2A
Equalization and Cycle Service	14.4 to 15.0 VDC/unit Average at 25°C (77°F)
Self Discharge	HENGLI Batteries can be stored for more than 6 months at 25°C (77°F). Please charge batteries before using. For higher temperatures the time interval will be shorter.
Terminal	F2-Faston Tab 250
Container Material	ABS(UL 94-HB) & Flammability resistance of (UL 94-V0) can be available upon request.



IT1720HL22031803

VRLA batteries are certified by ISO9001, ISO14001 and OHSAS18001.

► Dimensions :	Overall Height (H)	Container height (h)	Length (L)	Width (W)
Unit: mm	101±2.0	95±1.5	151±1.5	98.5±1.5



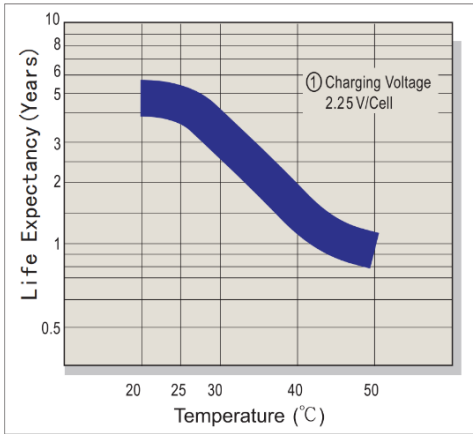
### Constant Current Discharge Characteristics Unit: A (25°C,77°F)

F.V/Time	5min	15min	30min	1h	3h	5h	10h	20h
1.60V	50.8	28.5	16.35	9.04	3.90	2.50	1.36	0.713
1.67V	49.7	28.1	16.29	8.98	3.89	2.49	1.35	0.711
1.7V	48.4	27.2	16.07	8.85	3.86	2.46	1.35	0.707
1.75V	45.6	25.9	15.71	8.61	3.81	2.42	1.33	0.700
1.8V	40.9	23.8	15.04	8.19	3.69	2.34	1.29	0.684
1.85V	31.9	20.1	13.91	7.50	3.41	2.18	1.23	0.657

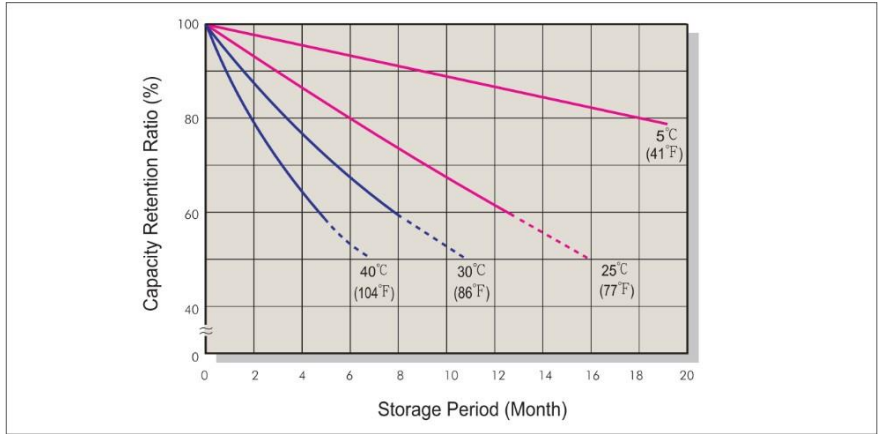
### Constant Power Discharge Characteristics Unit: W (25°C,77°F)

F. V/Time	5min	15min	30min	1h	3h	5h	10h	20h
1.60V	85.9	54.9	31.61	17.19	7.67	4.89	2.68	1.415
1.67V	82.1	51.9	31.48	17.08	7.65	4.89	2.66	1.415
1.7V	76.5	48.6	31.20	16.89	7.61	4.84	2.66	1.407
1.75V	69.2	44.4	30.53	16.56	7.50	4.76	2.62	1.390
1.8V	59.4	39.2	29.31	16.01	7.24	4.58	2.54	1.359
1.85V	46.3	33.0	27.08	14.89	6.79	4.33	2.42	1.310

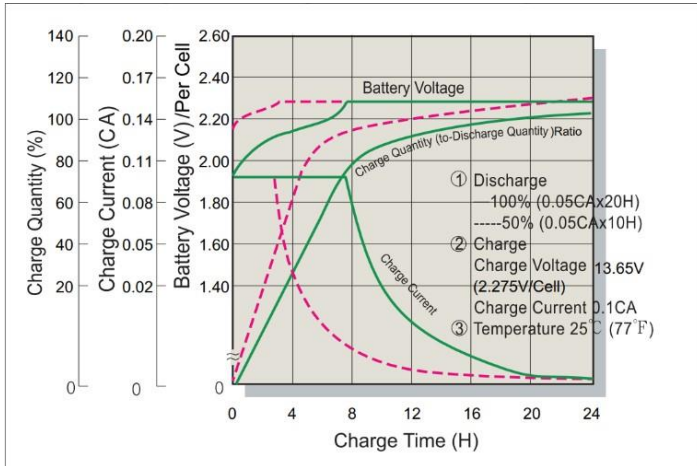
**Trickle(or Float)Design Life**



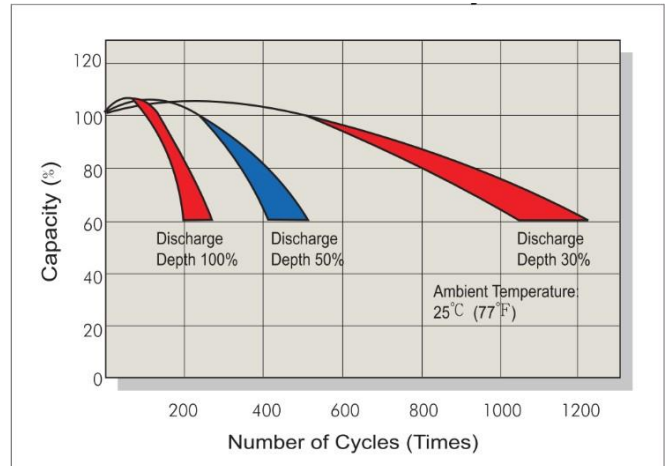
**Capacity Retention Characteristic**



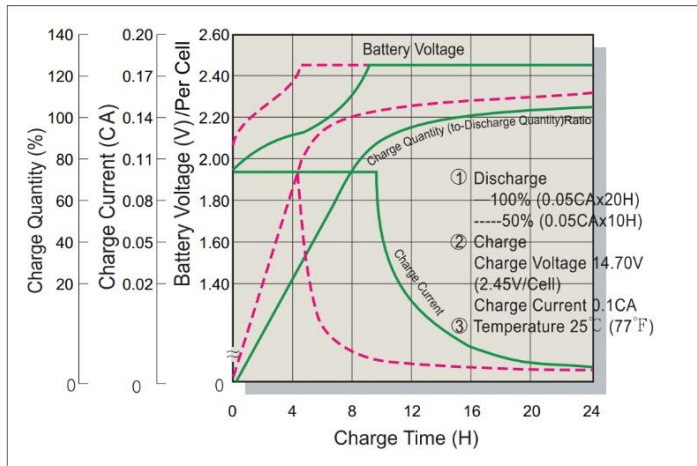
**Battery Voltage and Charge Time for Standby Use**



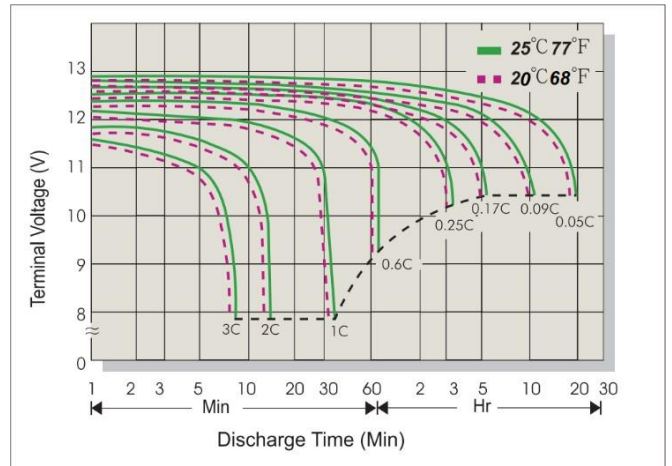
**Cycle Service Life**



**Battery Voltage and Charge Time for Cycle Use**



**Terminal Voltage (V) and Discharge Time**



**Charging Procedures**

Application	Charge Voltage(V/Cell)			Max.Charge Current
	Temperature	Set Point	Allowable Range	
Cycle Use	25 °C (77 °F)	2.45	2.40~2.50	0.3C
Standby	25 °C (77 °F)	2.275	2.25~2.30	

**Discharge Current VS. Discharge Voltage**

Final Discharge Voltage V/Cell	1.75	1.70	1.65	1.60
Discharge Current(A)	0.2C>(A)	0.2C<(A)<0.5C	0.5C<(A)<1.0C	(A)>1.0C

**Effect of temperature on capacity (20HR)**

Temperature	Dependency of Capacity (20HR)
40 °C	102%
25 °C	100%
0 °C	85%
-15 °C	65%

**Self-discharge Characteristics**

Storage time	Preservation rate
3 Months	91%
6 Months	82%
12 Months	64%