

### HTG Series Battery

SPACEFLIGHT HTG Series Battery is hybrid GEL battery designed with deep cycle technology to give extra-durable cycle performance. HTG series battery with 12 years floating design life at 25°C.

#### Applications

- Solar and wind power systems
- Communication systems
- Uninterruptible power supplies
- Golf carts and buggies
- Alarm and security system
- Electric toy and wheelchairs, etc

#### General Features

- 12 years designed floating life(25°C)
- Non-spillable construction
- Sealed and maintenance-free
- Excellent recovery from deep discharge
- High density active materials plates
- Longer Life and low self-discharge

#### Standards

- Compliance with IEC, BS, JIS and EU standards.
- UL, CE Certified
- ISO45001,ISO9001 and ISO14001 certified production facilities

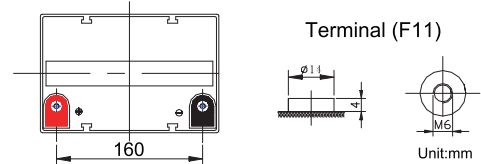
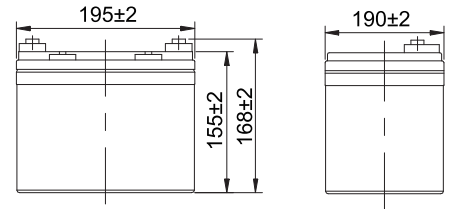
#### Specifications

Rated Voltage	12V	
Nominal Capacity	33Ah	(C <sub>10</sub> , 10.8V)
Approx Weight	10.2kg±3%(22.5lbs)	
Terminal	F11	
Rated Capacity(25°C)	35.6 Ah	( 20hr,1.78A,10.5V)
	33 Ah	(10hr, 3.3A,10.8V)
	28.5 Ah	(5hr,5.7A,10.5V)
	18.5 Ah	(1hr,18.5A,9.6V)
Max.Discharge Current	330A(5s)	
Max.Charge Current	8.25A	
Internal Resistance(25°C)	Approx 10mΩ	
Operating Temp.Range	Discharge	-20~60°C(-4~140°F)
	Charge	-10~50°C(14~122°F)
	Storage	-20~60°C(-4~140°F)
Nominal operating temperature	25±5°C	
Charge Voltage @25°C(77°F)	Cycle Use	Initial Charging Current less than 8.25A. Voltage 14.4V~15.0V at 25°C(77°F)Temp. Coefficient -30mV/°C
	Standby Use	Initial Charging Current less than 8.25A. Voltage 13.5V~13.8V at 25°C(77°F)Temp. Coefficient -20mV/°C
Temperature effects on capacity	40°C (104°F)	103%
	25°C (77°F)	100%
	0°C (32°F)	86%
	-15°C (5°F)	65%
Self Discharge(25°C)	Capacity after 3 months storage	91%
	Capacity after 6 months storage	82%
	Capacity after 12 months storage	65%



#### Dimensions

unit:mm



Length	195±2mm (7.68 inches)
Width	130±2mm (5.12 inches)
Container Height	155±2mm (6.10 inches)
Total Height	168±2mm (6.61 inches)

#### Battery Construction

Component	Positive plate	Negative plate	Container	Safety valve	Terminal	Separator	Electrolyte
Raw material	Lead dioxide	Lead	ABS(UL94-HB) or FR(UL94-V0)	Rubber	Copper	AGM	SiO <sub>2</sub> +H <sub>2</sub> SO <sub>4</sub>

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

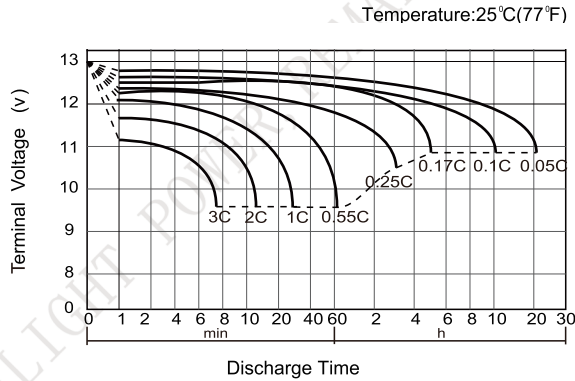
E.V/Time	5min	10min	15min	30min	1h	3h	5h	10h	20h
1.60V	114.0	79.2	61.5	36.3	20.0	8.6	6.01	3.43	1.83
1.65V	108.0	75.2	58.4	34.5	19.0	8.5	5.90	3.41	1.82
1.70V	101.0	70.7	54.9	32.4	18.1	8.3	5.81	3.38	1.80
1.75V	94.0	65.8	51.1	30.8	17.2	8.2	5.70	3.35	1.78
1.80V	86.5	60.5	47.0	28.3	16.3	8.0	5.60	3.30	1.75

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

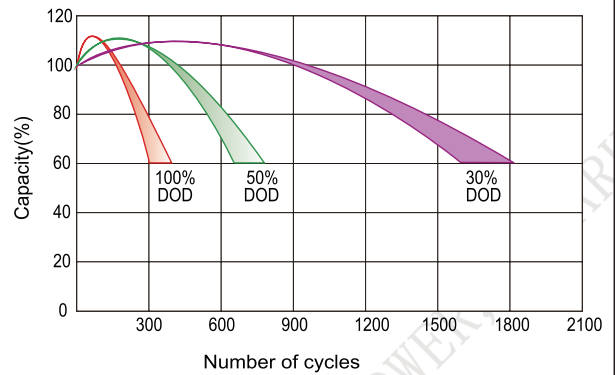
E.V/Time	5min	10min	15min	30min	45min	1h	2h	3h	5h
1.60V	213	150	112	71.8	53.6	43.7	24.2	17.7	11.7
1.65V	200	142	108	69.6	52.5	43.0	23.8	17.5	11.6
1.70V	185	133	103	67.5	51.4	42.3	23.3	17.3	11.5
1.75V	170	125	99.2	65.3	50.4	41.5	22.9	17.0	11.4
1.80V	160	116	95.0	63.0	49.3	40.8	22.4	16.8	11.4

Note: The above characteristics data are average values obtained Within three charge/discharge cycles not the minimum.

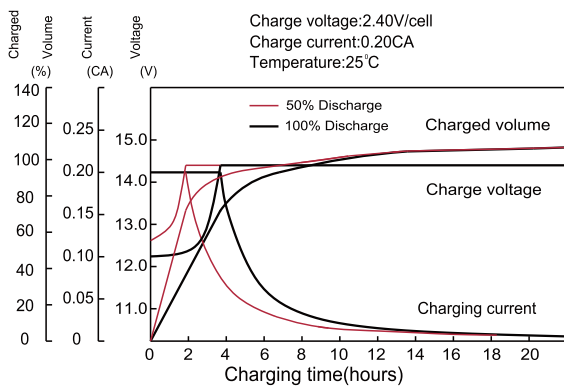
**Discharge characteristic**



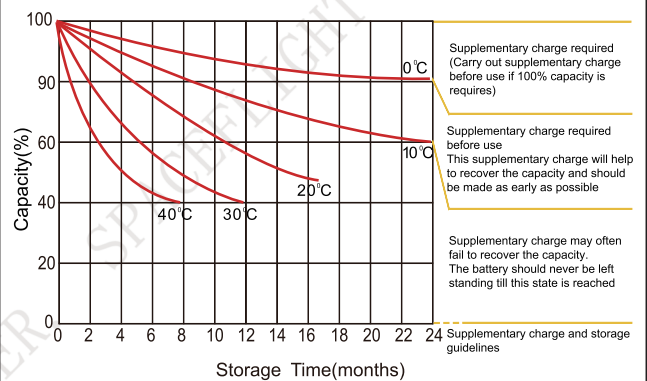
**Cycle life in relation to depth of discharge**



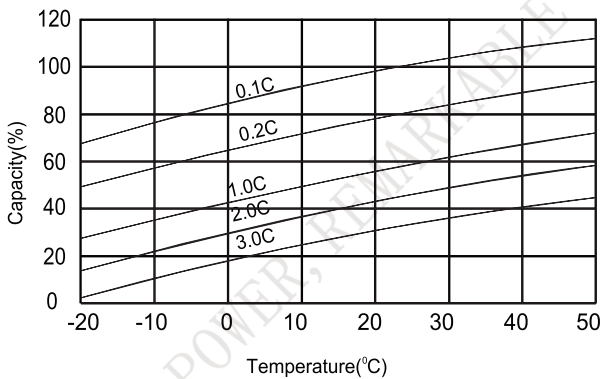
**Charge characteristic curve**



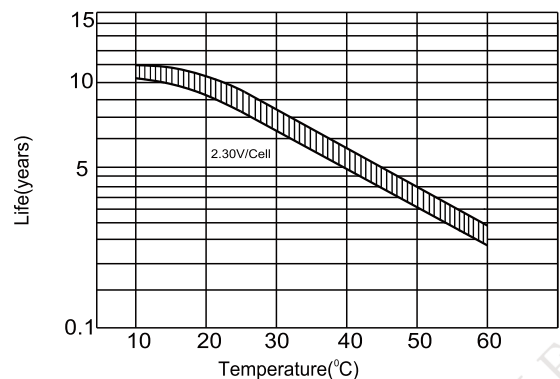
**Storage Characteristics**



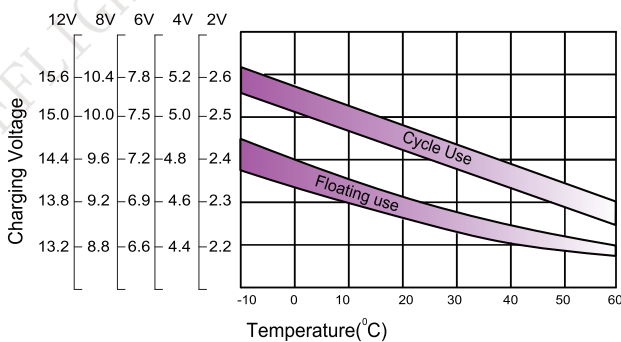
**Temperature effects on capacity**



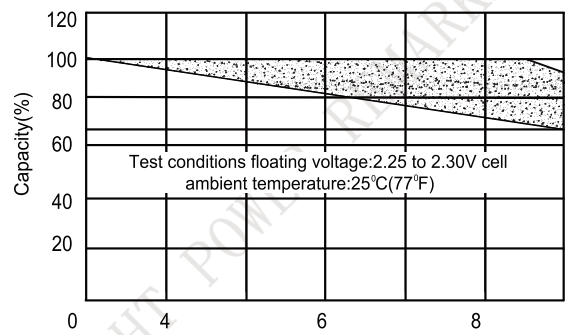
**Temperature effects on float life**



**Relationship between charging voltage and temperature**



**Life characteristic of standby use**



Factory address: Fukang Industrial Zone, Longnan, Ganzhou, Jiangxi Province, China.  
Shenzhen Office: RM208-210, Building D, Tongju industrial Park, No.4, Longping West Road, Longgang District, Shenzhen.  
TEL: +86-755-28288189 [sales@sfbattery.com](mailto:sales@sfbattery.com) [www.sfbattery.com](http://www.sfbattery.com)