

### HTD Series Battery

SPACEFLIGHT HTD series battery is Deep Cycle AGM battery designed with thicker plates with more high-density active materials which makes the battery can with stand repeated deep cyclic applications.

#### 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

- 5 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

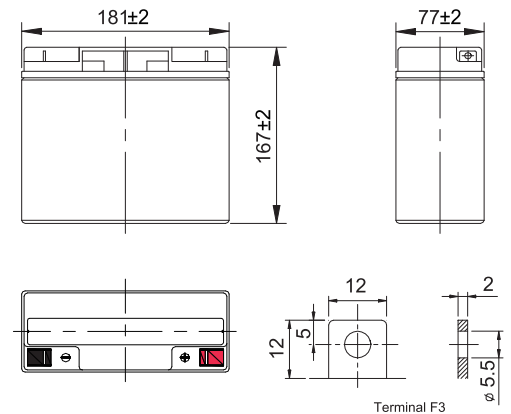
#### Specifications

Rated Voltage	12V	
Nominal Capacity	20Ah	(C <sub>20</sub> , 10.5V)
Approx Weight	5.55kg±3%(12.24lbs)	
Terminal	F3	
Rated Capacity(25°C)	20 Ah	( 20hr, 1.0A, 10.5V)
	17.5 Ah	(10hr, 1.75A, 10.5V)
	17.0 Ah	(5hr, 3.4A, 10.5V)
	14 Ah	(1hr, 14A, 9.6V)
Max.Discharge Current	300A(5s)	
Max.Charge Current	5A	
Internal Resistance(25°C)	Approx 16mΩ	
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	Cycle Use	Initial Charging Current less than 5A. Voltage 14.4V~15.0V at 25°C(77°F)Temp. Coefficient -30mV/°C
	Standby Use	Initial Charging Current less than 5A. 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	181±2mm (7.13 inches)
Width	77±2mm (3.03 inches)
Container Height	167±2mm (6.57 inches)
Total Height	167±2mm (6.57 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	Fiberglass	Sulfuric acid

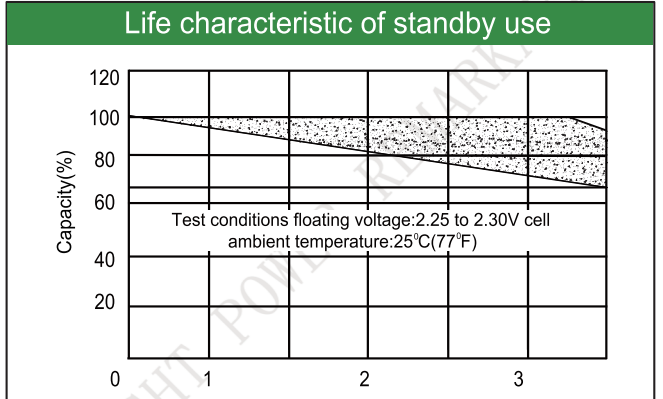
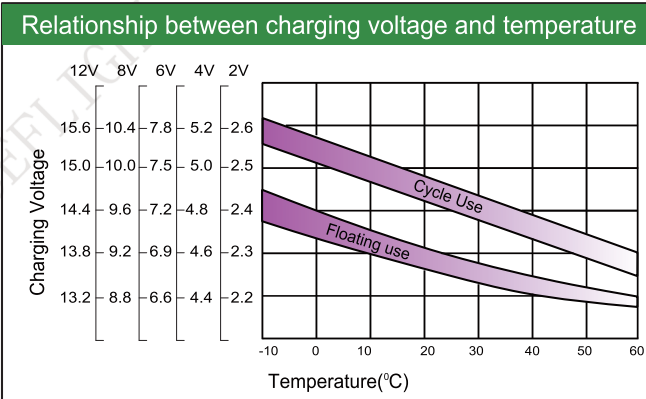
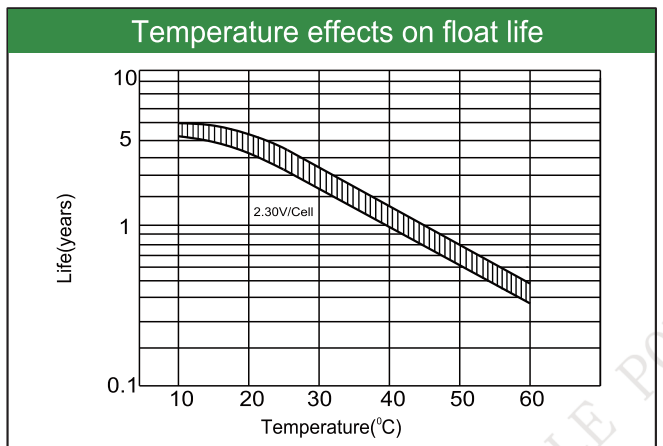
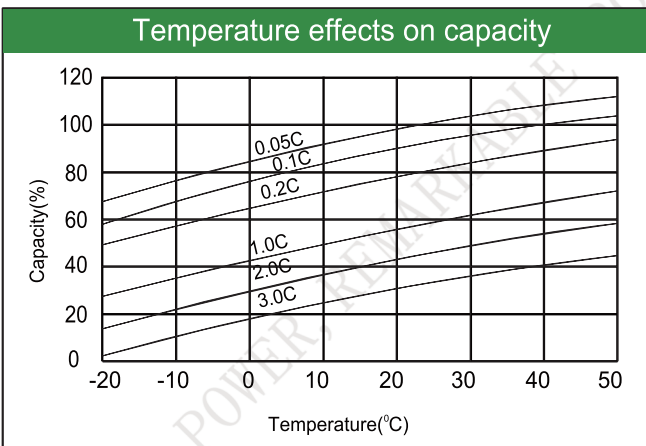
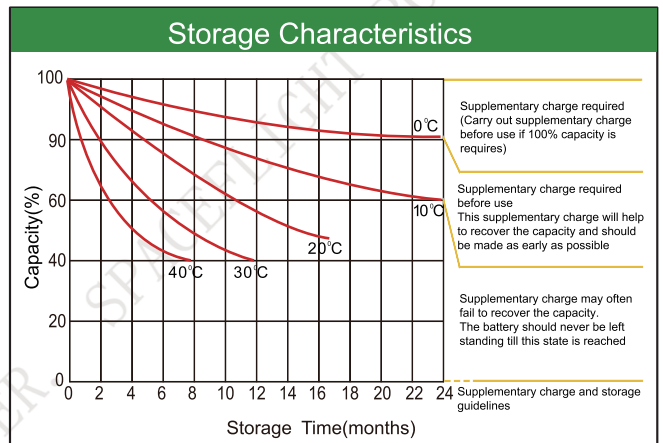
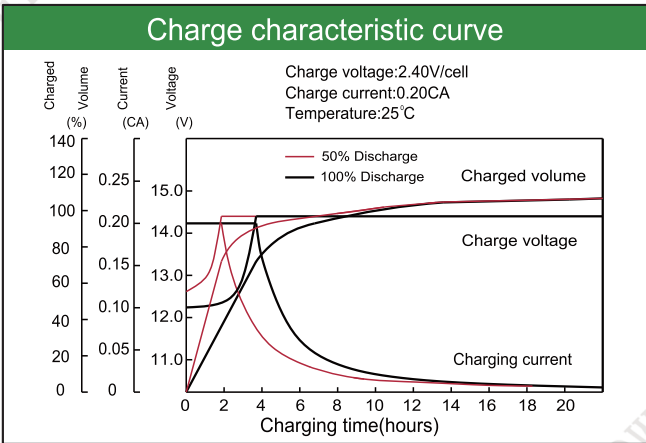
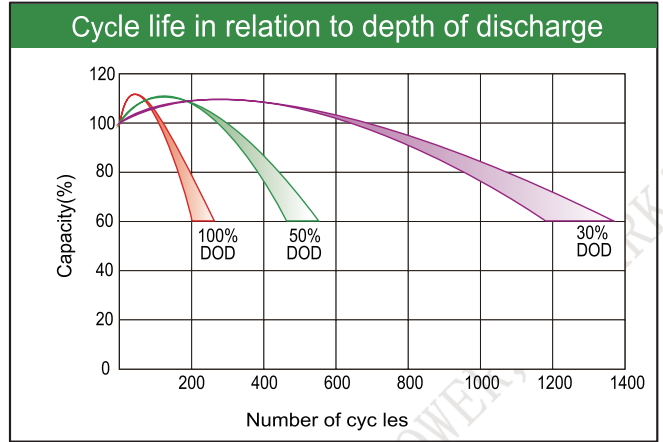
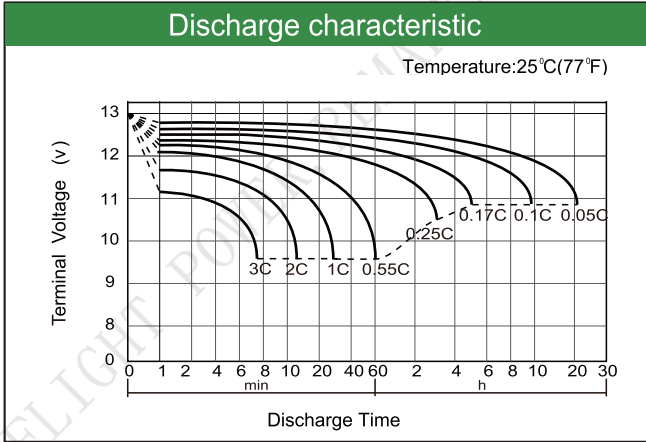
#### Constant Current Discharge (Amperes) at 25°C(77°F)

E.V/Time	5min	10min	15min	30min	60min	3h	5h	10h	20h
1.60V	75.0	53.5	42.5	24.5	14.0	5.60	3.60	1.81	1.02
1.65V	72.7	52.5	41.7	23.9	13.7	5.48	3.54	1.79	1.02
1.70V	70.3	51.4	40.8	23.3	13.4	5.35	3.47	1.77	1.01
1.75V	67.8	50.2	39.9	22.6	13.0	5.20	3.40	1.75	1.00
1.80V	65.1	48.9	38.9	21.8	12.6	5.05	3.30	1.72	0.98

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

E.V/Time	5min	10min	15min	30min	45min	60min	2h	3h	5h
1.60V	145	102	80.5	46.5	34.5	27.5	15.3	11.0	7.10
1.65V	141	100	79	45.5	33.9	27.1	15.1	10.8	7.00
1.70V	136	97.5	77.2	44.4	33.2	26.7	14.8	10.6	6.90
1.75V	130	95	75.2	43.2	32.5	26.2	14.5	10.4	6.80
1.80V	123	92	73	41.7	31.7	25.7	14.1	10.2	6.65

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



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