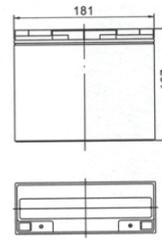
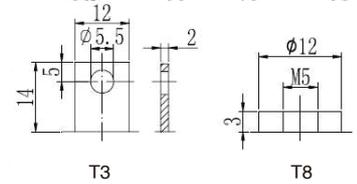




#### Dimensions



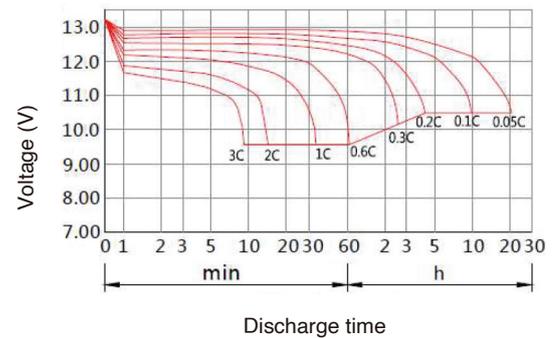
#### Terminal



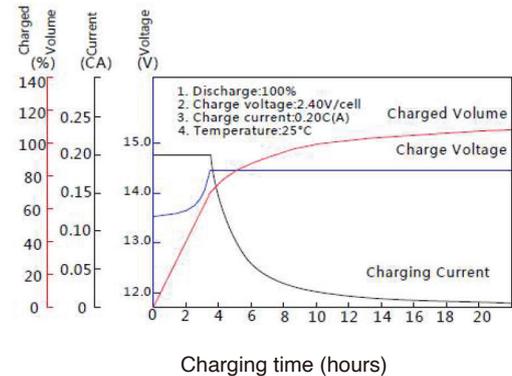
### Specifications

Nominal Voltage	12V	
Capacity (25°C)	20HR (10.5V)	18Ah
	10HR (10.5V)	16.7Ah
	1HR (9.60V)	11.7Ah
Dimensions	Length	181 ± 2mm (7.13inch)
	Width	77 ± 1mm (3.03inch)
	Height	167 ± 2mm (6.57inch)
	Total Height	167 ± 2mm (6.57inch)
Approx. Weight	5.1kg (11.24lbs) ± 4%	
Terminal type	T3/T8	
Internal resistance (Fully charged, 25°C)	Approx. 16mΩ	
Capacity affected by temperature (20HR)	40°C	102%
	25°C	100%
	0°C	85%
	-15°C	65%
Self-discharge (25°C)	3 month	Remaining Capacity: 91%
	6 month	Remaining Capacity: 82%
	12 month	Remaining Capacity: 65%
Nominal operating temperature	25°C ± 3°C (77°F ± 5°F)	
Operating temperature range	Discharge	-15°C ~ 50°C (5°F ~ 122°F)
	Charge	-10°C ~ 50°C (14°F ~ 122°F)
	Storage	-20°C ~ 50°C (-4°F ~ 122°F)
Floating charging voltage (25°C)	13.60 to 13.80V Temperature compensation: -18mV/°C	
Cycling charging current	14.50 to 14.90V Temperature compensation: -30mV/°C	
Maximum charging current	5.4A	
Terminal material	Copper	
Maximum discharging current	270A (5sec.)	
Design floating life (20°C)	10 years	

### Discharge Characteristics (25°C)



### Charging Characteristics (25°C)



### Constant Current Discharge Characteristics (A, 25°C)

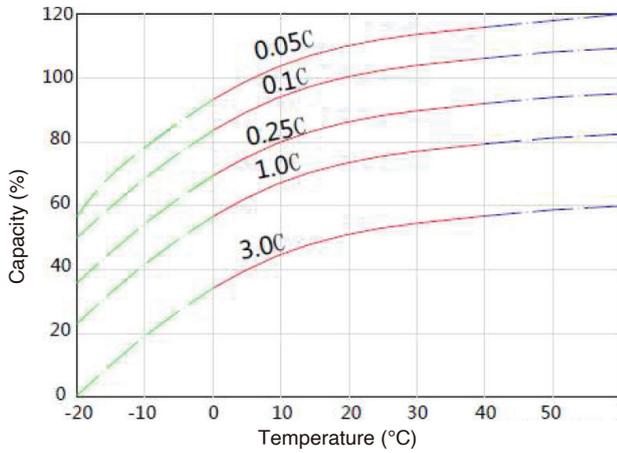
F.V/TIME	10min	15min	30min	60min	2h	3h	4h	5h	8h	10h	20h
9.60V	43.2	34.2	19.1	11.7	6.39	4.59	3.67	3.12	2.02	1.70	0.91
9.90V	41.9	33.4	18.7	11.5	6.36	4.56	3.65	3.10	2.01	1.69	0.91
10.2V	40.2	32.1	18.1	11.2	6.30	4.53	3.63	3.08	1.99	1.68	0.91
10.5V	38.4	31.1	17.7	11.0	6.21	4.50	3.60	3.06	1.98	1.67	0.90
10.8V	36.3	29.4	17.0	10.7	6.05	4.37	3.49	2.97	1.92	1.64	0.88

### Constant Current Discharge Characteristics (Watt, 25°C)

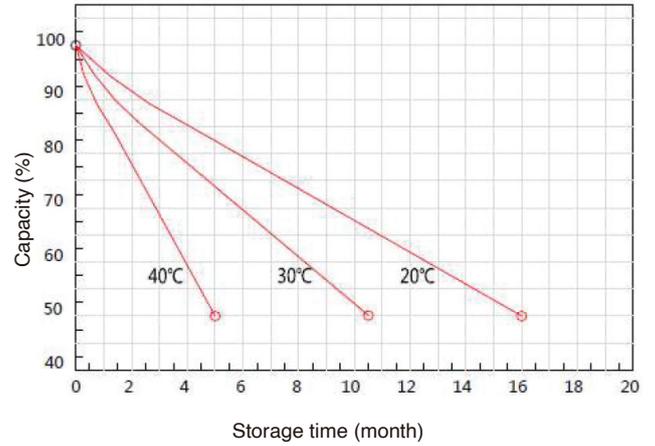
F.V/TIME	10min	15min	30min	60min	2h	3h	4h	5h	8h	10h	20h
9.60V	487	390	219	135	74.8	54.5	43.7	37.3	24.2	20.4	11.0
9.90V	473	381	214	133	74.4	54.2	43.5	37.0	24.1	20.3	10.9
10.2V	453	366	208	130	73.7	53.8	43.2	36.8	23.9	20.2	10.9
10.5V	434	354	203	127	72.6	53.5	42.9	36.5	23.8	20.1	10.8
10.8V	409	335	195	124	70.8	51.9	42.6	35.4	23.0	19.7	10.6

Note: The above characteristics data can be obtained within three charge/discharge cycles.

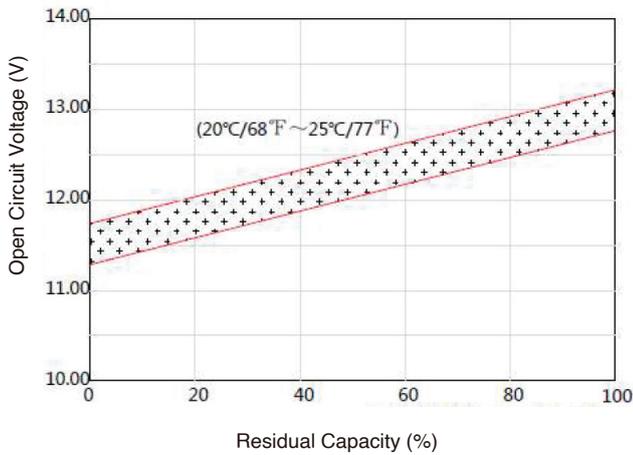
#### ■ Effect of Temperature on Capacity



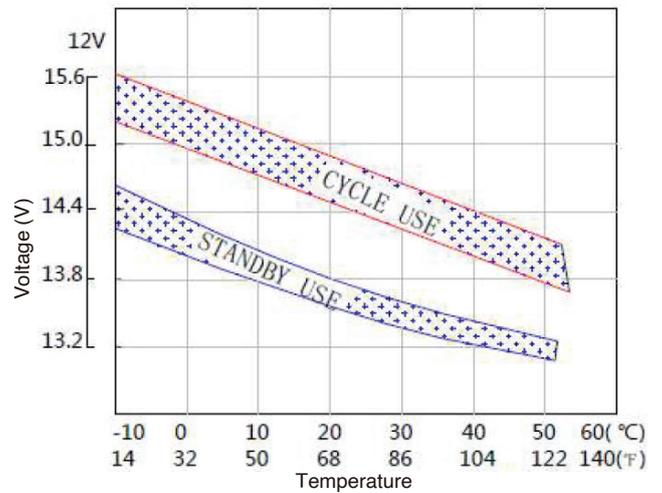
#### ■ Self-discharge Characteristic



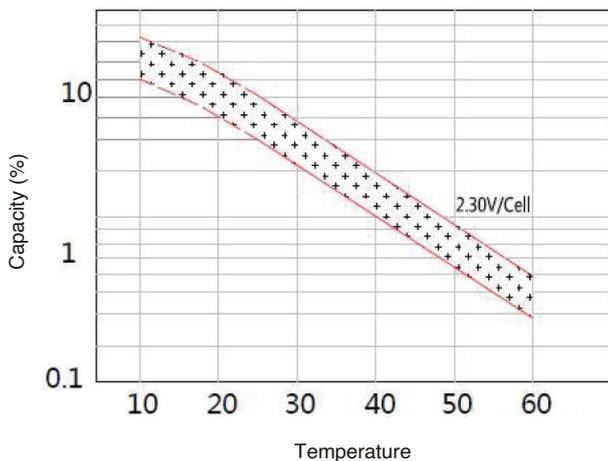
#### ■ The Relationship for Open Circuit Voltage and Residual Capacity (25°C)



#### ■ The Relationship for Charging Voltage and Temperature



#### ■ Floating Life on Temperature



#### ■ Cycle Life on D.O.D (25°C)

