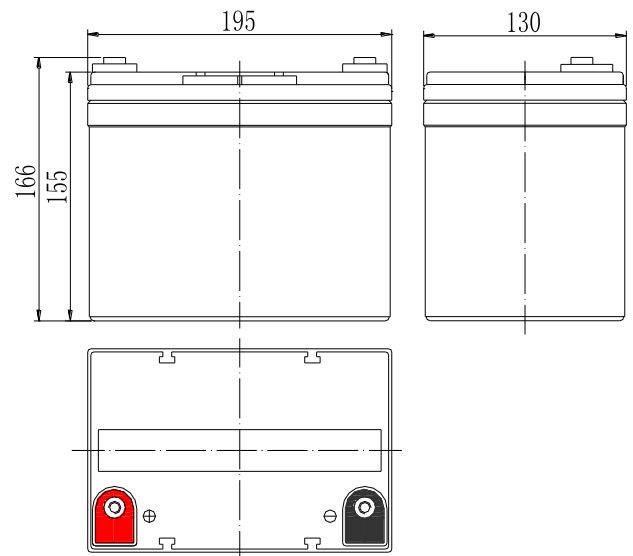
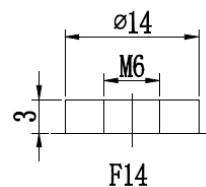


**Specifications**

Nominal Voltage		12 V
Capacity (25°C)	10HR(10.8V)	33 Ah
	5HR(10.5V)	28Ah
	1HR(9.60V)	19.8Ah
Dimension	Length	195 ± 2mm (7.68inch)
	Width	130 ± 1mm (5.12inch)
	Height	155 ± 2mm (6.10inch)
	Total Height	166 ± 2mm (6.54inch)
Approx. Weight		10kg (22.1lbs) ± 4%
Terminal type		F14
Internal resistance (Fully charged, 25°C)		Approx. 11mΩ
Capacity affected by temperature (10HR)	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)
Float charging voltage(25°C)		13.50 to 13.80V Temperature compensation: -18mV/°C
Cyclic charging voltage(25°C)		14.40 to 14.70V Temperature compensation: -30mV/°C
Maximum charging current		9.9A
Maximum discharge current		330A(5 sec.)
Designed floating life(20°C)		12 years

**Dimensions**

**Terminal**

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

F.V/TIME	10min	15min	30min	60min	2h	3h	4h	5h	8h	10h	20h
9.60V	62.7	52.1	31.7	19.8	12.1	8.52	6.73	5.72	4.04	3.36	1.78
9.90V	60.8	50.9	31.1	19.5	12.0	8.47	6.69	5.69	4.02	3.35	1.78
10.2V	58.3	49.0	30.2	19.0	11.9	8.41	6.65	5.65	3.99	3.34	1.77
10.5V	55.8	47.3	29.4	18.6	11.7	8.35	6.60	5.61	3.96	3.32	1.76
10.8V	52.7	44.8	28.3	18.1	11.4	8.10	6.40	5.44	3.84	3.30	1.75

**Constant Power Discharge Characteristics (Watt, 25°C)**

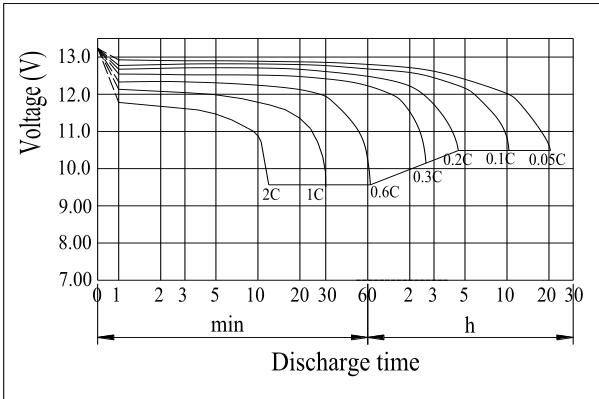
F.V/TIME	10min	15min	30min	60min	2h	3h	4h	5h	8h	10h	20h
9.60V	677	572	356	226	140	100	79.2	67.6	48.0	40.1	21.4
9.90V	657	559	349	222	139	100	78.7	67.2	47.7	40.0	21.3
10.2V	630	538	338	217	138	98.9	78.2	66.8	47.4	39.9	21.3
10.5V	603	520	330	212	136	98.2	77.6	66.3	47.0	39.7	21.1
10.8V	569	492	318	206	132	95.2	75.3	64.3	45.6	39.4	21.0

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

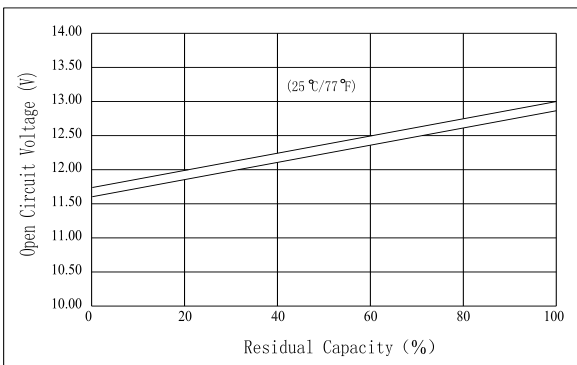
**Construction**

Component	Positive plate	Negative plate	Container	Cover	Separator	Electrolyte	Safety valve	Terminal
Raw material	Lead dioxide	Lead	ABS	ABS	AGM	Gel	Rubber	Copper

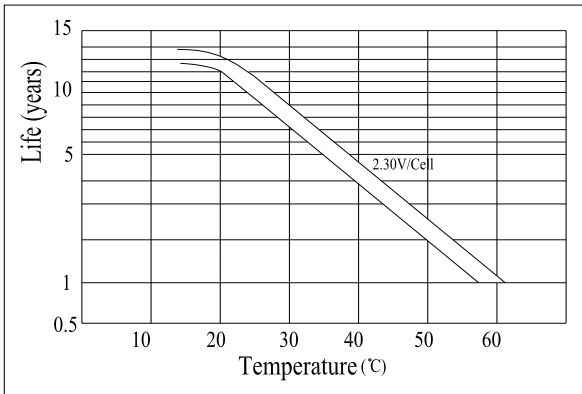
**Discharge Characteristics(25°C)**



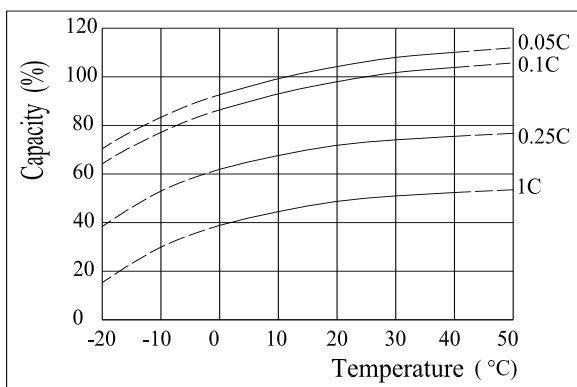
**The Relationship for Open Circuit Voltage and Residual Capacity (25°C)**



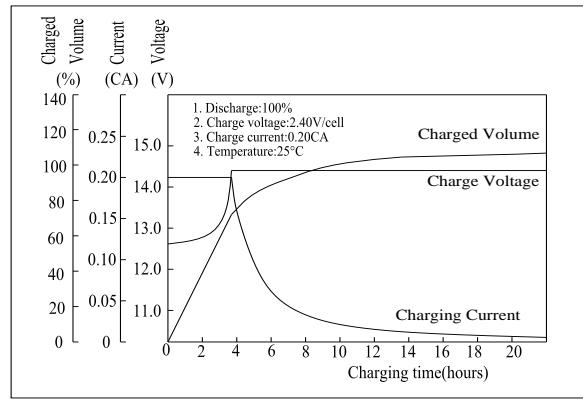
**Floating Life on Temperature**



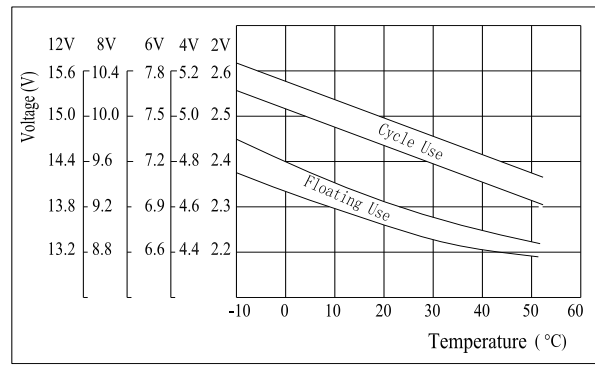
**Effect of Temperature on Capacity**



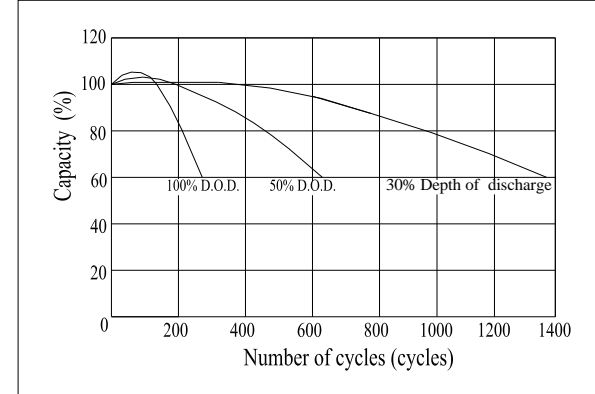
**Charging Characteristics(25°C)**



**The Relationship for Charging Voltage and Temperature**



**Cycle Life on D.O.D.(25°C)**



**Self-discharge Characteristics**

