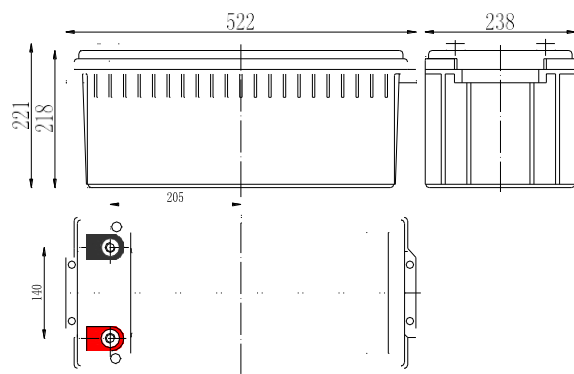


## Specifications

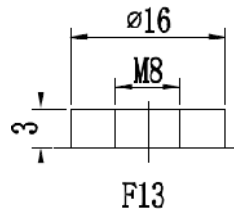
Nominal Voltage		12 V
Capacity (25°C)	10HR(10.8V)	200 Ah
	5HR(10.5V)	170Ah
	1HR(9.60V)	120Ah
Dimension	Length	522 ± 2mm (20.55inch)
	Width	238 ± 2mm (9.37inch)
	Height	218 ± 2mm (8.58inch)
	Total Height	221 ± 2mm (8.70inch)
Approx. Weight		59.5kg (131.2lbs) 4%
Terminal type		F13
Internal resistance (Fully charged, 25°C)		Approx. 3.3mΩ
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 ~ 122 )
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		60A
Maximum discharge current		1600A(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	380	316	192	120	73.1	51.6	40.8	34.7	24.5	20.4	10.8
9.90V	369	308	189	118	72.6	51.3	40.6	34.5	24.3	20.3	10.8
10.2V	353	297	183	115	72.0	51.0	40.3	34.2	24.2	20.3	10.7
10.5V	338	287	178	113	70.9	50.6	40.0	34.0	24.0	20.1	10.7
10.8V	319	272	172	109	69.1	49.1	38.8	33.0	23.3	20.0	10.6

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

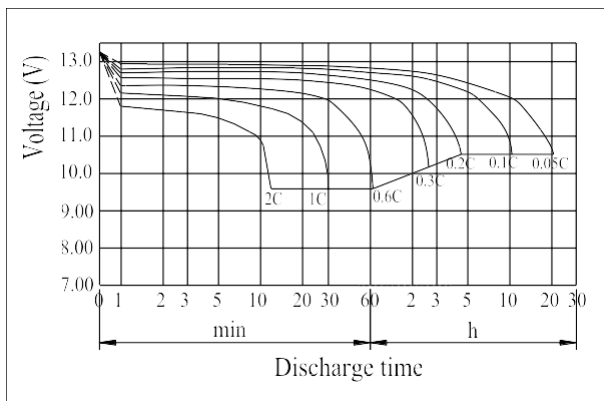
F.V/TIME	10min	15min	30min	60min	2h	3h	4h	5h	8h	10h	20h
9.60V	4104	3470	2159	1368	846	607	480	410	291	243	129
9.90V	3981	3386	2116	1347	841	603	477	408	289	243	129
10.2V	3817	3261	2051	1313	834	599	474	405	287	242	129
10.5V	3653	3150	2001	1287	821	595	470	402	285	240	128
10.8V	3447	2984	1928	1248	800	577	456	390	277	239	127

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

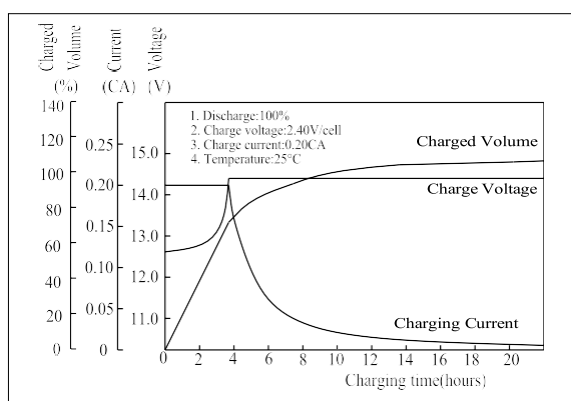
## Construction

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

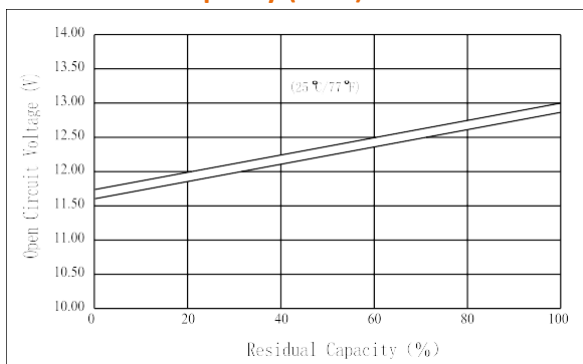
**Discharge Characteristics (25°C)**



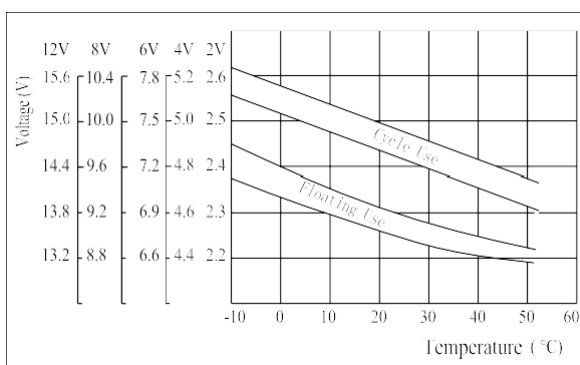
**Charging Characteristics (25°C)**



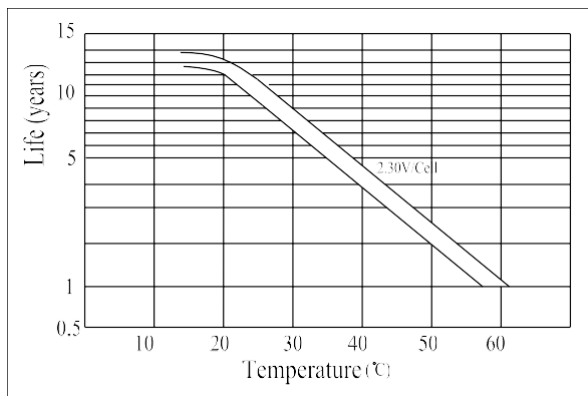
**The Relationship for Open Circuit Voltage and Residual Capacity (25°C)**



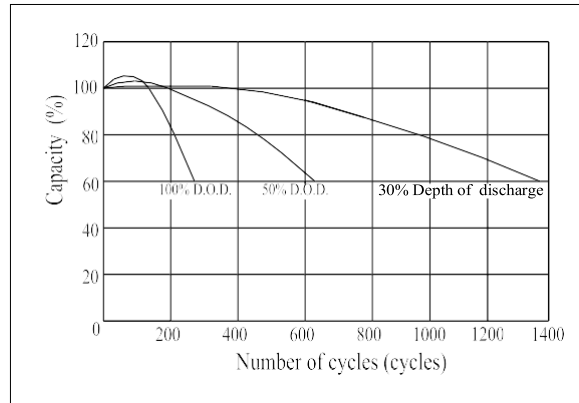
**The Relationship for Charging Voltage and Temperature**



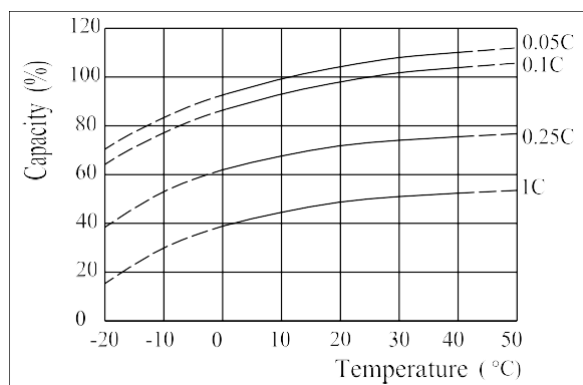
**Floating Life on Temperature**



**Cycle Life on D.O.D.(25°C)**



**Effect of Temperature on Capacity**



**Self-discharge Characteristics**

