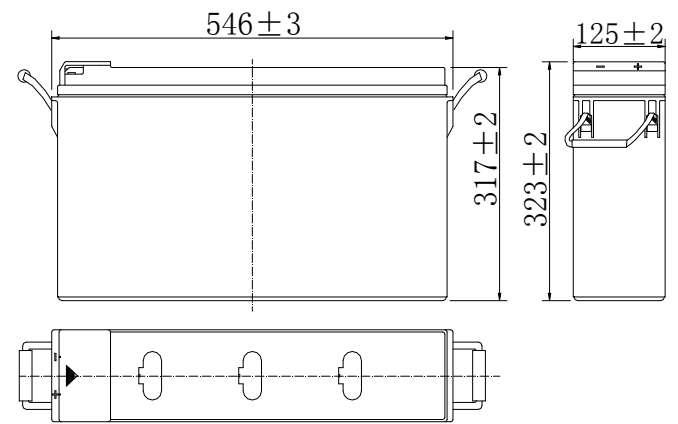
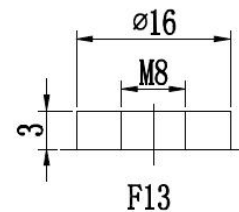


Specifications

Nominal Voltage		12 V
Capacity (25°C)	10HR(10.8V)	180 Ah
	5HR(10.5V)	158Ah
	1HR(9.60V)	108Ah
Dimension	Length	546 ± 3mm (21.50inch)
	Width	125 ± 2mm (4.92inch)
	Height	317 ± 2mm (12.48inch)
	Total Height	323 ± 2mm (12.72inch)
Approx. Weight		56kg (123.5lbs) ± 4%
Terminal type		F13
Internal resistance (Fully charged, 25°C)		Approx. 4m Ω
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)		14.50 to 15.00V Temperature compensation: -30mV/°C
Maximum charging current		54A
Maximum discharge current		1400A(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	381	293	175	108	65.8	46.8	37.8	32.3	22.2	18.3	9.71
9.90V	369	286	172	106	65.4	46.5	37.6	32.1	22.1	18.3	9.69
10.2V	354	276	167	104	64.8	46.2	37.3	31.9	21.9	18.2	9.66
10.5V	339	266	163	101	63.8	45.9	37.1	31.7	21.8	18.1	9.61
10.8V	320	252	157	98.3	62.2	44.5	36.0	30.7	21.1	18.0	9.54

Constant Power Discharge Characteristics (Watt, 25°C)

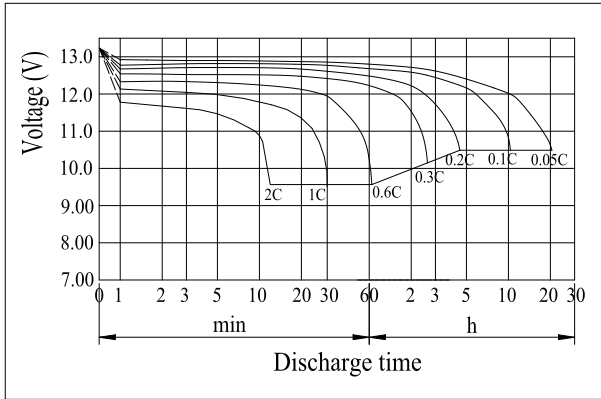
F.V/TIME	10min	15min	30min	60min	2h	3h	4h	5h	8h	10h	20h
9.60V	4111	3221	1969	1230	762	551	445	382	264	219	117
9.90V	3987	3143	1929	1212	757	547	442	380	262	218	116
10.2V	3823	3027	1870	1181	750	544	439	377	261	218	116
10.5V	3659	2924	1825	1156	739	540	436	374	259	216	115
10.8V	3453	2770	1758	1121	720	524	423	363	251	215	114

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

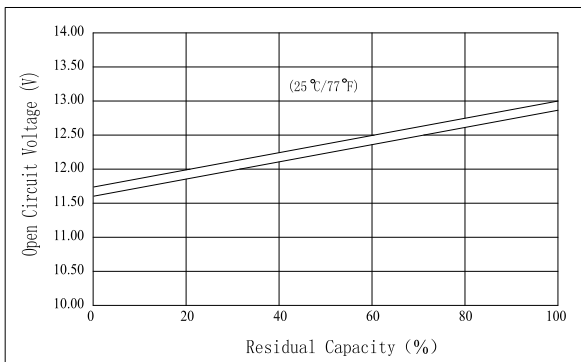
Construction

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

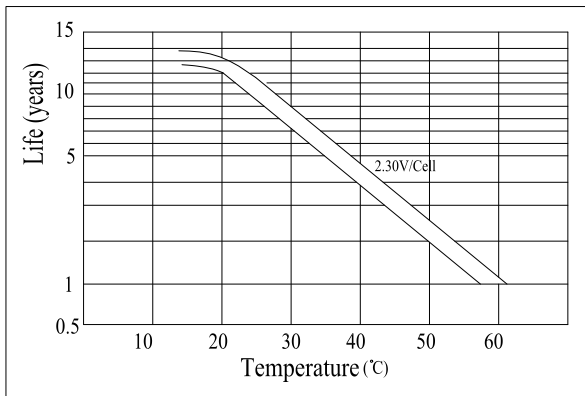
Discharge Characteristics(25°C)



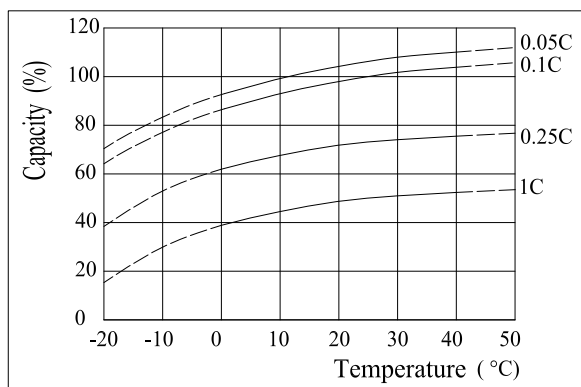
The Relationship for Open Circuit Voltage and Residual Capacity (25°C)



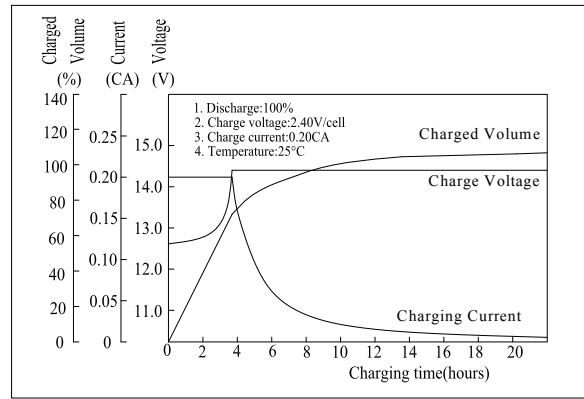
Floating Life on Temperature



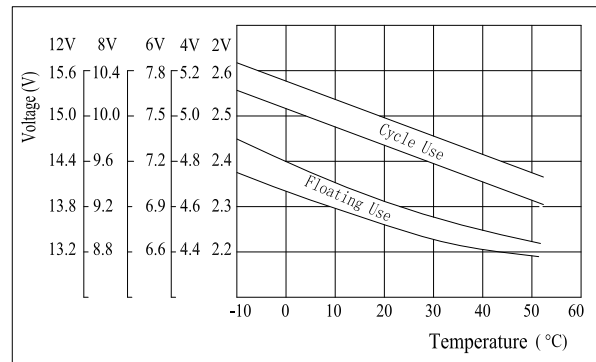
Effect of Temperature on Capacity



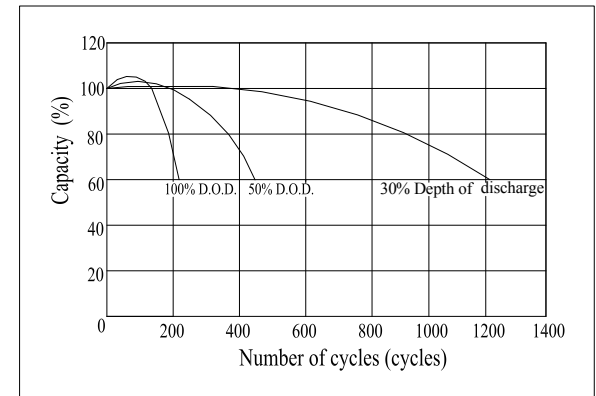
Charging Characteristics(25°C)



The Relationship for Charging Voltage and Temperature



Cycle Life on D.O.D(25°C)



Self-discharge Characteristics

