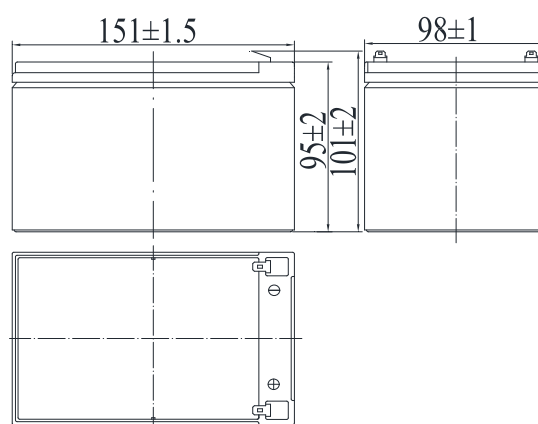


Specifications

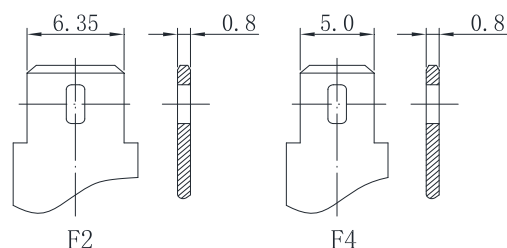
Nominal Voltage		12 V
Capacity (25°C)	20HR(10.5V)	12.9Ah
	10HR(10.5V)	12Ah
	1HR(9.60V)	8.4Ah
Dimension	Length	151±1.5mm (5.94inch)
	Width	98±1mm (3.86inch)
	Height	95±2mm (3.74inch)
	Total Height	101±2mm (3.98inch)
Approx. Weight		3.45kg (7.61lbs)±5%
Terminal type		F2/F4
Internal resistance (Fully charged, 25°C)		Approx.20m Ω
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)
Float charging voltage(25°C)		13.60 to 13.80V Temperature compensation: -18mV/°C
Cyclic charging voltage(25°C)		14.60 to 14.80V Temperature compensation: -30mV/°C
Maximum charging current		3.6A
Maximum discharge current		180A(5 sec.)
Designed floating life(20°C)		5 years



Dimensions



Terminal



Constant Current Discharge Characteristics (A, 25°C)

F.V/TIME	5min	10min	15min	30min	60min	2h	3h	4h	5h	10h	20h
9.60V	49.4	31.2	24.3	13.8	8.47	4.63	3.21	2.66	2.25	1.22	0.67
9.90V	47.8	30.3	23.8	13.5	8.35	4.59	3.17	2.64	2.23	1.22	0.65
10.2V	45.9	29.1	23.0	13.1	8.13	4.56	3.15	2.62	2.23	1.22	0.65
10.5V	43.9	27.9	22.1	12.8	7.95	4.49	3.14	2.61	2.21	1.20	0.65
10.8V	41.5	26.2	21.1	12.3	7.71	4.37	3.05	2.50	2.14	1.18	0.63

Constant Power Discharge Characteristics (Watt, 25°C)

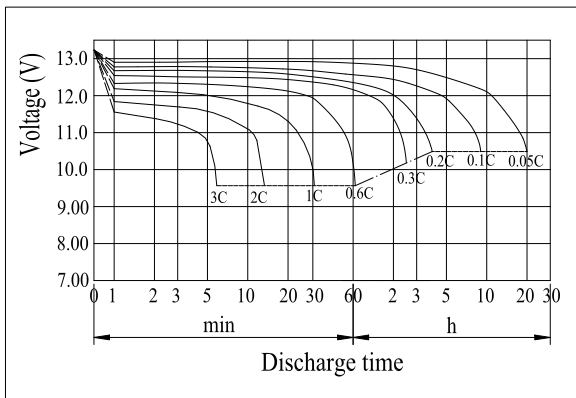
F.V/TIME	5min	10min	15min	30min	60min	2h	3h	4h	5h	10h	20h
9.60V	550	353	279	158	98.1	54.2	38.1	31.5	26.9	14.7	7.87
9.90V	533	341	271	154	96.5	53.8	37.9	31.4	26.7	14.6	7.85
10.2V	513	329	262	150	94.1	53.3	37.5	31.2	26.6	14.6	7.82
10.5V	490	314	254	146	92.2	52.6	37.4	31.0	26.4	14.5	7.75
10.8V	463	297	240	141	89.3	51.3	36.2	30.2	25.7	14.2	7.61

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

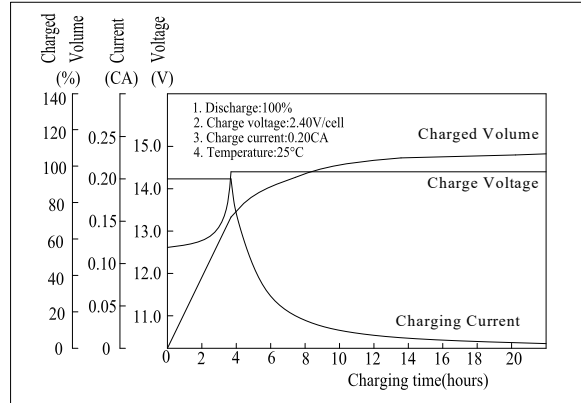
Construction

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

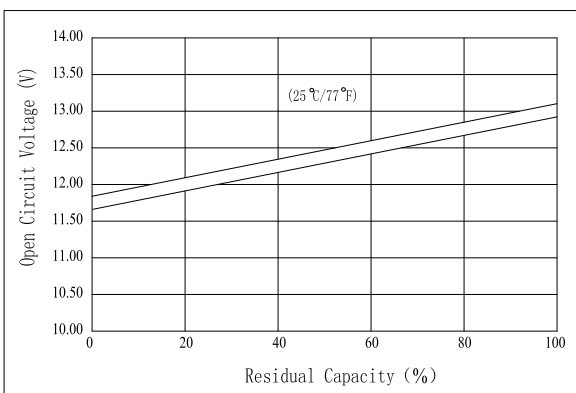
Discharge Characteristics(25°C)



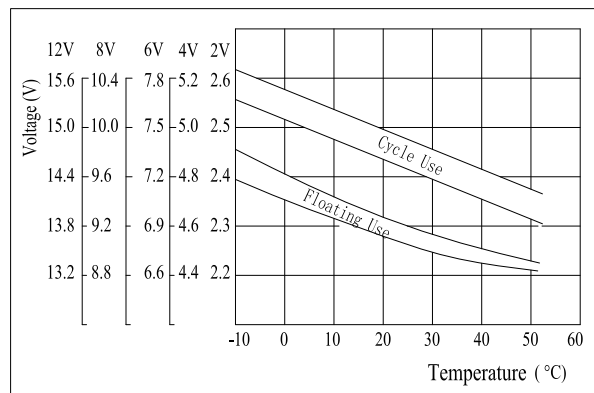
Charging Characteristics(25°C)



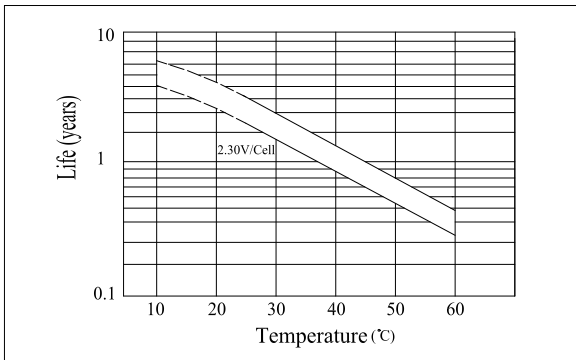
The Relationship for Open Circuit Voltage and Residual Capacity (25°C)



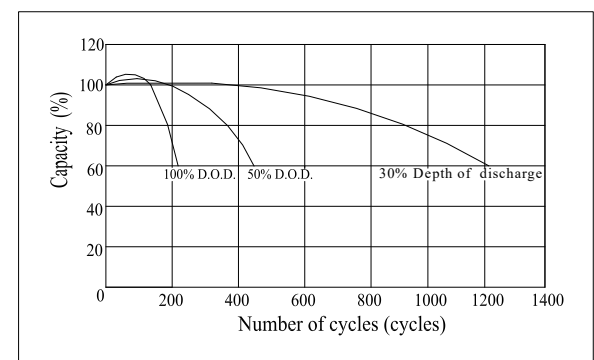
The Relationship for Charging Voltage and Temperature



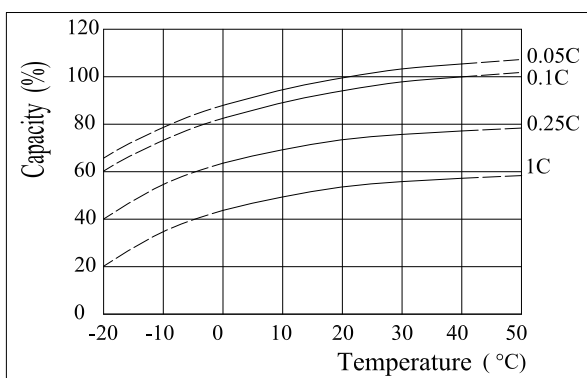
Floating Life on Temperature



Cycle Life on D.O.D(25°C)



Effect of Temperature on Capacity



Self-discharge Characteristics

