

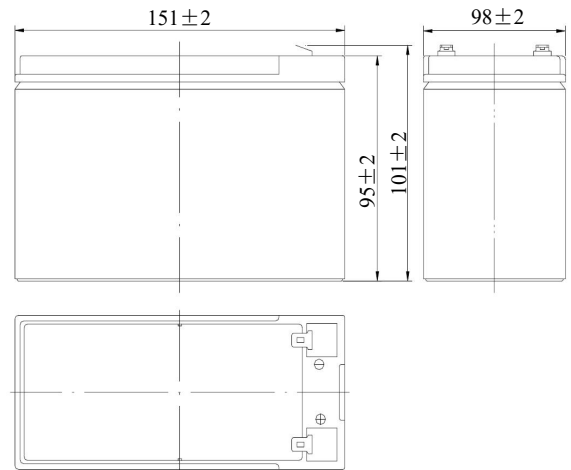
Specification

Nominal voltage	12V	
Capacity (25°C)	20HR(10.5V)	12Ah
	10HR(10.5V)	11Ah
	1HR(9.6V)	7.8Ah
Dimension	Length	151±2mm
	Width	98±2mm
	Height	95±2mm
	Total height	101±2mm
Approx. weight	3.78kg±4%	
Internal resistance (Fully charged,25°C)	Approx. 19mΩ	
Capacity affected by temperature(10HR)	40°C	102%
	25°C	100%
	0°C	85%
	-15°C	65%
Self-discharge(25°C)	3 months	Remaining capacity 91%
	6 months	Remaining capacity 82%
	12 months	Remaining capacity 65%
Nominal operating temperature	25±3°C	
Operating temperature range	Discharge	-15°C~50°C
	Charge	-10°C~50°C
	Storage	-20°C~50°C
Float charge voltage(25°C)	13.5V to 13.8V temperature compensation: -18mV/°C	
Cycle charge voltage(25°C)	14.5V to 14.9V temperature compensation: -30mV/°C	
Maximum charge current	3.6A	
Terminal & material	F1 / F2; Copper	
Maximum discharge current	180A(5s)	
Designed floating life(20°C)	10 years	

Feature: Absorbent Glass Mat technology
ABS container; Battery recognized by CE
Sealed and Maintenance-free Operation

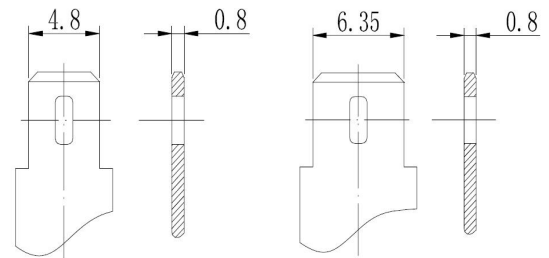


Dimension:



Terminal: F1 terminal

F2 terminal



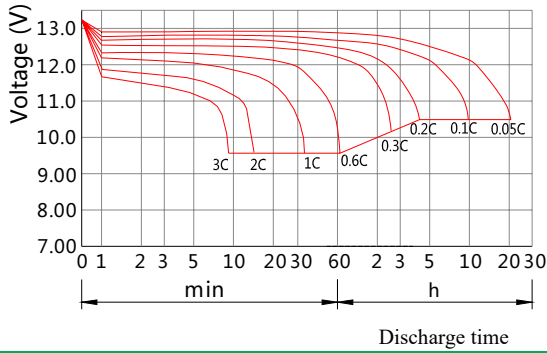
Constant Current discharge characteristics(A,25°C)

F.V/TIME	10min	15min	30min	60min	2h	3h	4h	5h	8h	10h	20h
9.60V	28.8	22.8	12.7	7.80	4.26	3.06	2.45	2.08	1.35	1.13	0.61
9.90V	27.9	22.3	12.5	7.68	4.24	3.04	2.43	2.07	1.34	1.13	0.61
10.2V	26.8	21.4	12.1	7.49	4.20	3.02	2.42	2.05	1.33	1.12	0.60
10.5V	25.6	20.7	11.8	7.34	4.14	3.00	2.40	2.04	1.32	1.12	0.60
10.8V	24.2	19.6	11.4	7.11	4.03	2.91	2.33	1.98	1.28	1.09	0.59

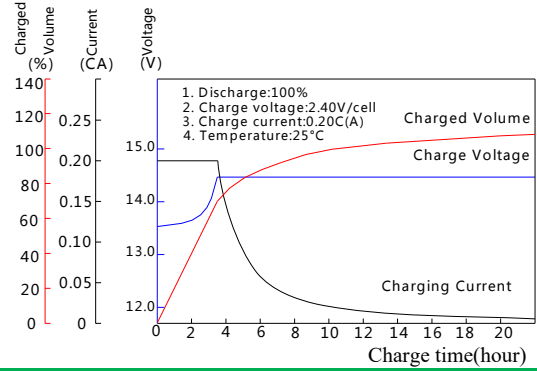
Constant Power discharge characteristics(W,25°C)

F.V/TIME	10min	15min	30min	60min	2h	3h	4h	5h	8h	10h	20h
9.60V	325	260	146	90.3	49.9	36.4	29.2	24.8	16.2	13.6	7.31
9.90V	315	254	143	89.0	49.6	36.1	29.0	24.7	16.1	13.5	7.28
10.2V	302	244	138	86.7	49.1	35.9	28.8	24.5	16.0	13.5	7.24
10.5V	289	236	135	85.0	48.4	35.6	28.6	24.4	15.8	13.4	7.20
10.8V	273	224	130	82.4	47.2	34.6	27.7	23.6	15.4	13.1	7.06

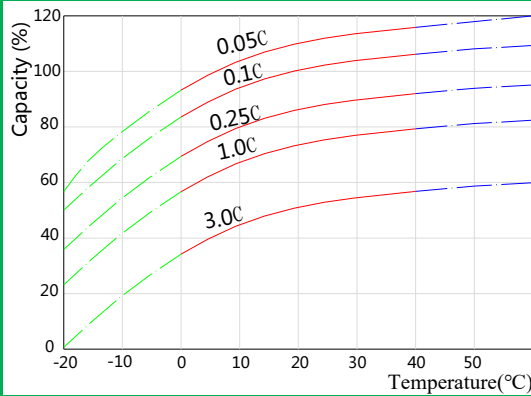
Discharge Characteristics(25°C)



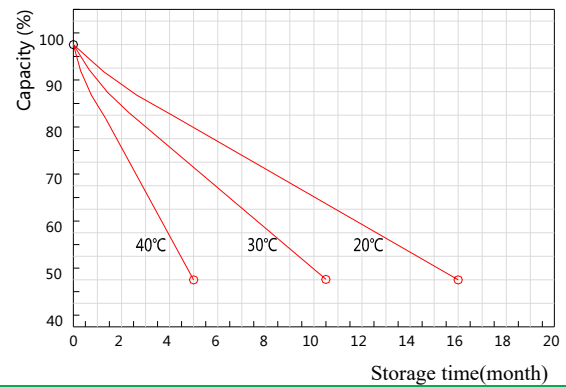
Charging Characteristics(25°C)



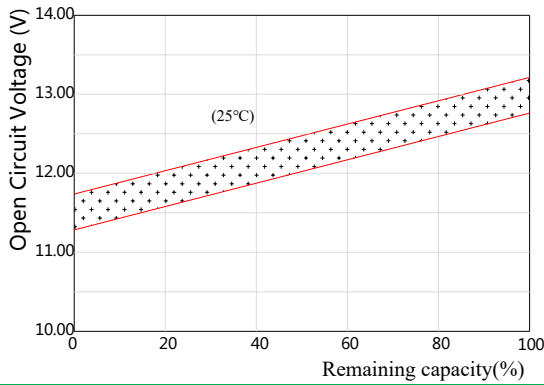
Effect of Temperature on Capacity



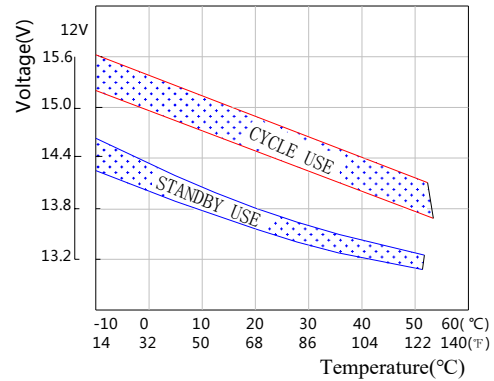
Self-discharge Characteristics



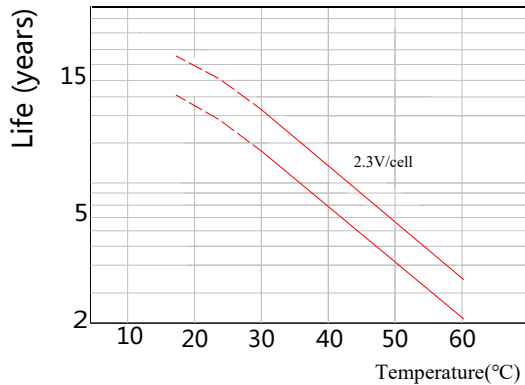
The Relationship of Open Circuit Voltage and Remaining Capacity (25°C)



The Relationship of Charge Voltage and Temperature



Floating Life on Temperature



Cycle Life on D.O.D(25°C)

