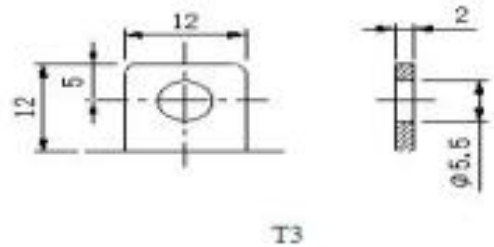


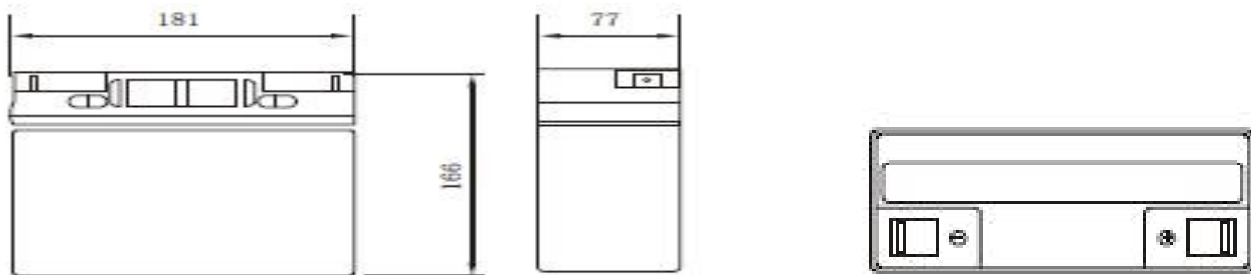
VRLA Battery

- completely sealed and maintenance-free, low self-discharge
- 100% precise quality testing, stable quality and high reliable performance
- Unique grid alloy formula and updated manufacturing technique
- Floating & standby use: up to 5 years
- Cycle use 1: More than 240 cycles at 100% DOD
- Cycle use 2: More than 1200 cycles at 30% DOD



Construction:

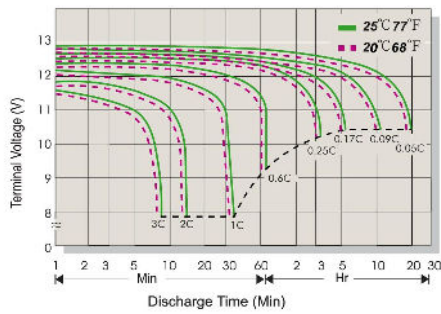
- ComponentRaw material
- PositiveLead dioxide
- NegativeLead
- ContainerABS
- CoverABS
- SealantEpoxy
- Safety valveRubber
- TerminalCopper
- SeparatorFiber glass
- ElectrolyteSulfuric acid



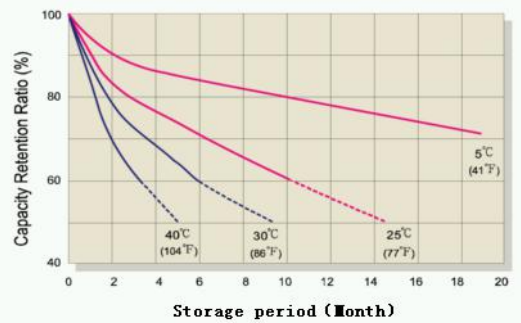
Specification:

Battery Model	NP 20-12 12V20AH			
Designer Floating Life	Up to 5 Years			
Capacity (25°C)	20HR(1.0A,10.50V)	10HR(1.9A,10.50V)	1HR(10A,9.6V)	27min(20A,9.6V)
	20AH	19AH	10AH	9.0AH
Dimensions	Length	Width	Height	Total Height
	181mm (7.15inch)	77mm (3.0inch)	166mm (6.6inch)	166mm (6.6inch)
Approx. Weight	5.65Kg (12.46 lbs)			
Internal Resistance	Full charged at 25°C: ≤12mΩ			
Self Discharge	2% of capacity declined per month at (25°C)			
Capacity Affected by Temp.(20HR)	40°C	25°C	0°C	-15°C
	102%	100%	80%	55%
Charge Voltage(25°C)	Cycle use		Float use	
	14.4-15.0V(-18mV/°C), max. Current: 6.0A		13.5-13.8V (-18mV/°C)	

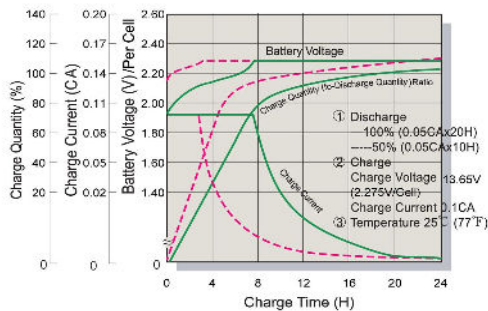
Terminal Voltage (V) and Discharge Time



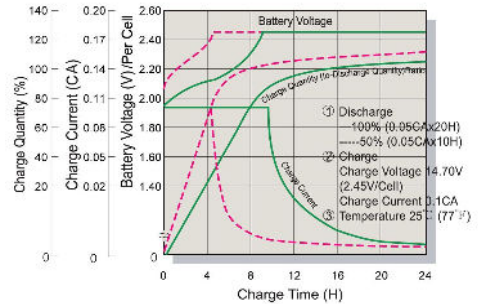
Capacity Retention Characteristic



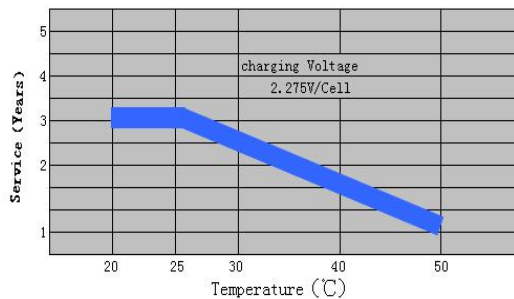
Battery Voltage and Charge Time for Standby Use



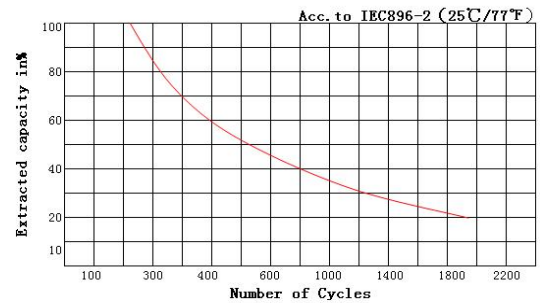
Battery Voltage and Charge Time for Cycle Use



Tickle(or Float) Service Life



Cycle Service Life



Constant Current Discharge(CC,Unit:A) at 25°C(77°F)

F.V/Time	5Min	10Min	15Min	27Min	1Hr	2Hr	3Hr	4Hr	5Hr	8Hr	10Hr	20Hr
9.6V	68.2	44.1	32.8	20.0	10.0	6.6	5.12	4.3	3.5	2.10	1.92	1.02
10.2V	63.1	428.4	30.3	19.0	9.64	6.3	5.10	4.2	3.5	2.07	1.90	1.02
10.5V	58.1	39.9	28.5	18.4	9.33	6.2	5.00	4.0	3.4	2.05	1.90	1.00
10.8V	56.1	39.3	26.3	17.9	9.02	6.0	4.96	3.8	3.3	2.03	1.88	0.98

Constant Power Discharge (CP,Unit:W) at 25°C(77°F)

F.V/Time	5Min	10Min	15Min	27Min	1Hr	2Hr	3Hr	4Hr	5Hr	8Hr	10Hr	20Hr
9.6V	702	454	334	212	115	69.8	51.2	40.5	35.9	22.6	18.6	10.4
10.2V	663	449	319	210	113	69.3	50.7	40.3	35.1	22.4	18.4	10.2
10.5V	621	428	305	209	112	68.9	50.6	397.8	34.9	22.3	18.3	10.0
10.8V	611	415	289	206	109	67.9	50.4	397.5	33.7	22.1	18.1	9.87