

SV12120

FEATURES

- AGM maintenance-free lead-acid battery
- High-efficiency lead-calcium plates
- Construction of fiber-glass separators stabilizes temperature of electrolyte
- High-quality insulation of plates
- Safe system of internal pressure regulating valves
- Reduced self-discharge current
- Sealed construction
- Long cycle life both in float and cycle charge modes
- Quality of products is guaranteed by the control of the manufacturing process in accordance with the standards



SPECIFICATION

Nominal Voltage	12 V	
Nominal Capacity	12 A·h at 20Hr-rate to 1.75V/cell	
Approx. Weight	3.75 Kg	
Number of cells in battery	6	
Internal Resistance	15 mΩ (Fully Charged) at 25 °C	
Self-Discharge	Average 3% of capacity declined per month at 25 °C	
Operating Temp. Range	Discharge: -20 °C ~ 50 °C	
	Charge: -15 °C ~ 40 °C	
	Storage: -20 °C ~ 40 °C	
Max. Discharge Current	180 A (5 sec.)	
Capacity Affected by Temp.	40 °C	102%
	25 °C	100%
	0 °C	85%
	-15 °C	65%
Container Material	ABS plastic	

APPLICATION

**All Purpose
UPS
Signal Light
Alarm and Security System
DC Power Supply
Auto Control System**

APPLICABLE STANDARDS

**IEC61056-1/2
JIS C8702-2003
GB/T19639.1-2005**



CHARGE PROCEDURE

Application	Constant Voltage Charge (V/cell)			Max. Charge Current
	Temperature	Set Point	Allowable Range	
Cycle Use	25 °C	2.425	2.40~2.45	0.3C
Standby Use	25 °C	2.275	2.25~2.30	

DISCHARGE CURRENT VS. DISCHARGE VOLTAGE

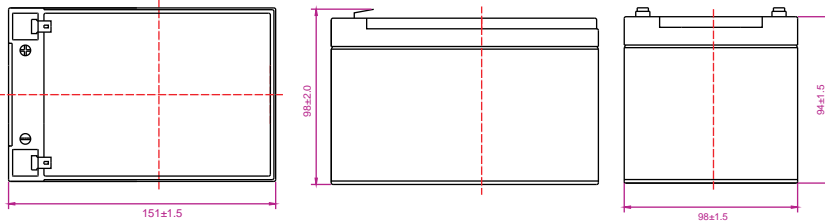
Final Discharge Voltage (V/cell)	1.75	1.70	1.60
Discharge Current (A)	0.2C > (A)	0.2C < (A) < 1C	(A) > 1C

Note: Temp. Compensation Coefficient of Charge Voltage,
Cycle use: -4mV/°C/cell, Standby Use: -3 mV/°C/cell

OUTER DIMENSION

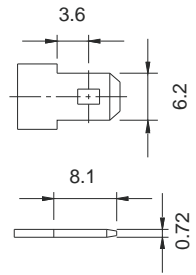
- Length
151 ± 1.5
- Width
98 ± 1.5
- Height
94 ± 1.5
- Total height
98 ± 2.0

Unit: mm

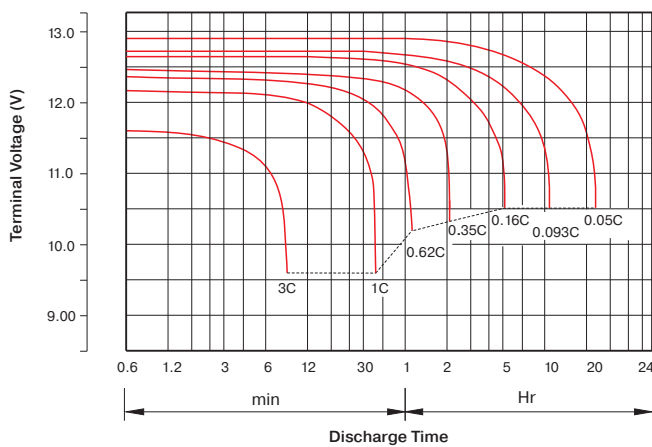


Terminal Type

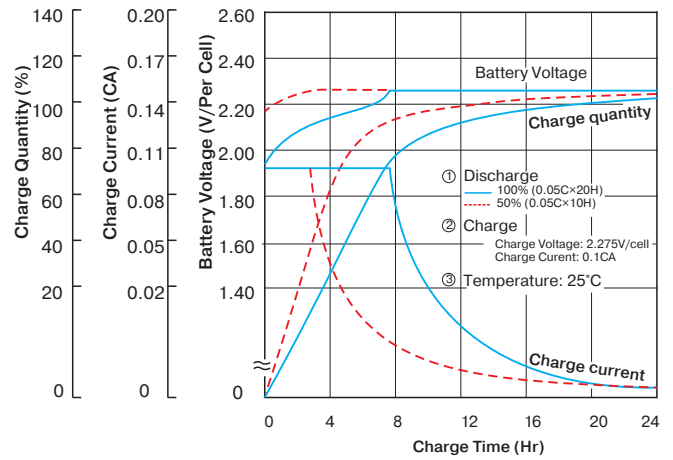
- Terminal F2



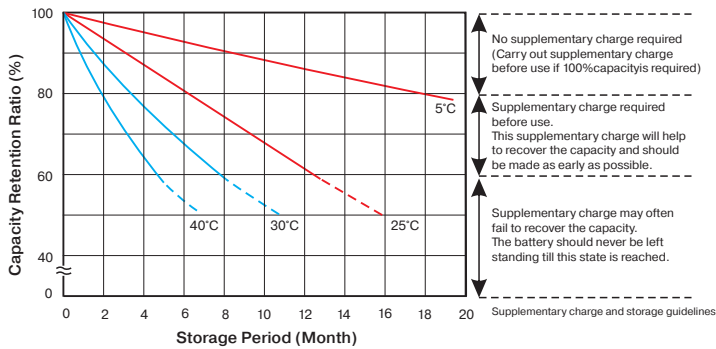
Discharge Characteristics at 25 °C



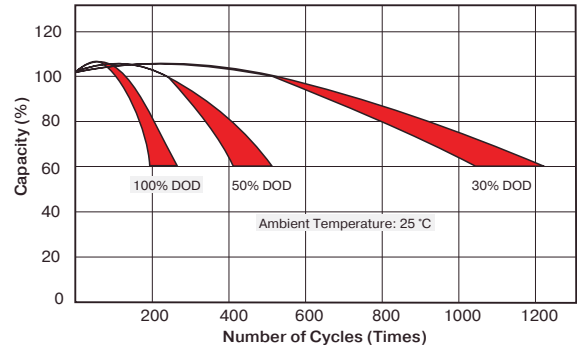
Charge characteristics (Standby use)



Capacity Retention Characteristics



Cycle Service Life



Constant Current (CC, Unit: A) & Constant Power (CP, Unit: W) Discharge Table at 25 °C

F.V. (V/cell)	Time Model	5 Min	10 Min	15 Min	30 Min	1 Hr	2 Hr	3 Hr	4 Hr	5 Hr	8 Hr	10 Hr	20 Hr
		1.60	CC(A)	46.8	30.68	22.75	14.95	7.8	4.55	3.35	2.69	2.28	1.51
	CP(W)	552	346.7	262.2	158.7	89.9	52.7	38.7	31.1	26.4	17.4	14.2	7.8
1.70	CC(A)	42.9	29.36	20.91	14.19	7.32	4.37	3.25	2.6	2.24	1.48	1.21	0.66
	CP(W)	519.5	328.3	246.5	157.6	84.5	50.5	37.6	30.1	25.9	17.1	14	7.6
1.75	CC(A)	39.05	27.43	19.50	13.76	7.09	4.28	3.20	2.47	2.23	1.46	1.2	0.65
	CP(W)	501.6	318.5	235.6	156	82	49.6	37	28.6	25.7	17	13.9	7.5
1.80	CC(A)	37.53	26.22	18.20	13.38	6.85	4.17	3.14	2.43	2.11	1.42	1.16	0.63
	CP(W)	439.8	308.8	227.0	155.5	79.6	48.5	36.6	28.2	24.6	16.3	13.5	7.4
1.85	CC(A)	34.71	24.70	16.90	13	6.61	4.06	2.98	2.38	2.02	1.39	1.14	0.62
	CP(W)	425.2	298.5	216.1	154.4	78.5	48.2	35.5	28.2	24.1	15.7	13.3	7.3

Note: The above data are average values, and can be obtained with 3 charge/discharge cycles.