

SV121000



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	100 A·h at 20Hr-rate to 10.5V/cell		
Approx. weight	30.0 Kg		
Number of cells in battery	6		
Internal resistance	6.4 mΩ (full charged at 25 °C)		
Self-discharge	2 % 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	1000 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
Communication power supply
DC power supply
Auto control system**

APPLICABLE STANDARDS

**IIEC61056-1/2
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	2.45	2.35~2.50	0.3C
Standby use	25 °C	2.275	2.25~2.30	

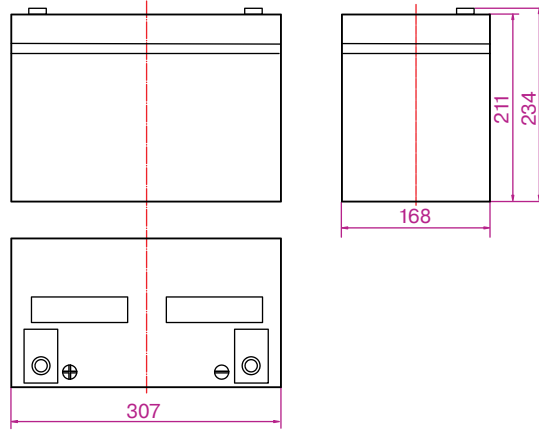
DISCHARGE CURRENT VS. DISCHARGE VOLTAGE

Final discharge voltage (V/cell)	1.75	1.70	1.60
Discharge current (A)	0.2C>(A)	0.2C<(A)<1C	(A)>1C

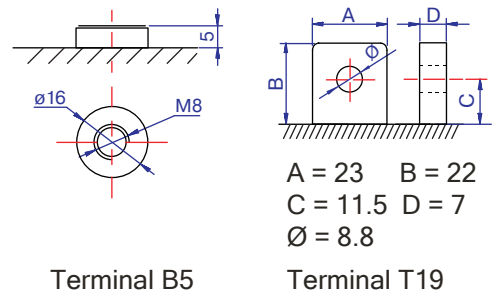
**Note: Temp. Compensation Coefficient of Charge Voltage,
Cycle use: -4mV/°C/cell, Standby Use: -3 mV/°C/cell**

OUTER DIMENSIONS

- Length 307
 - Width 168
 - Height 211
 - Total height 234
- Unit: mm



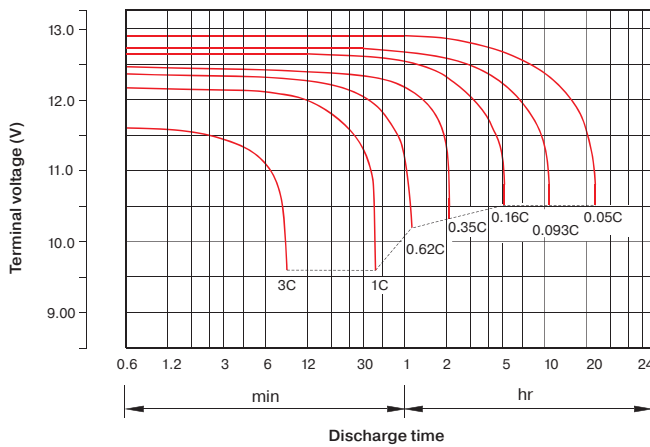
Terminal Type



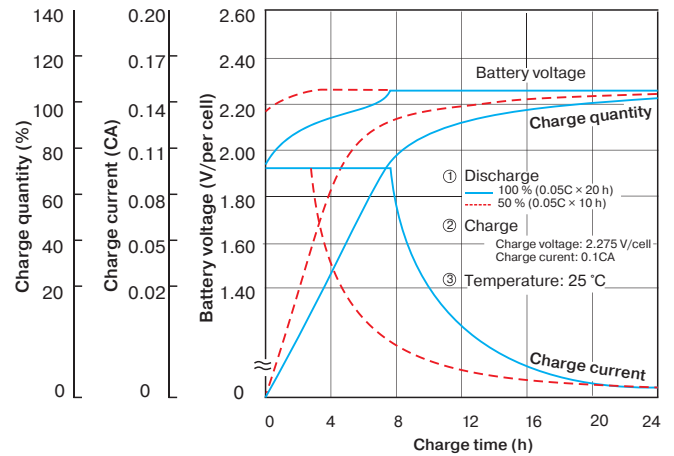
Terminal B5

Terminal T19

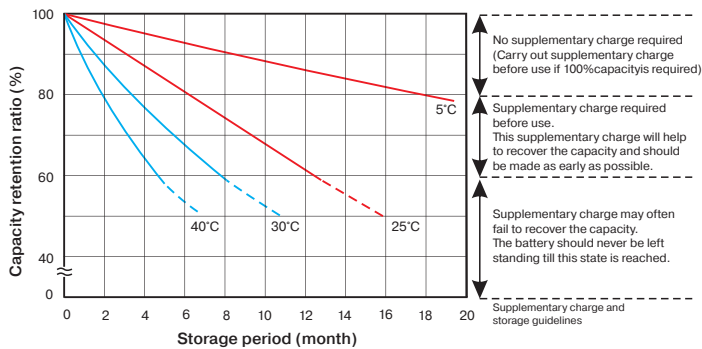
Discharge characteristics at 25 °C



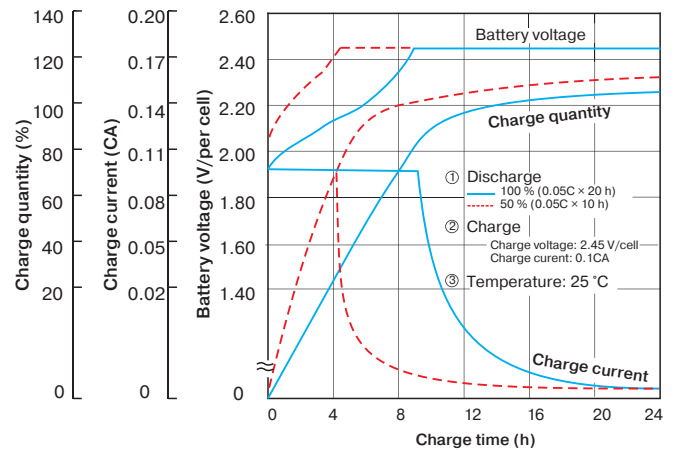
Voltage and battery charging time in floating use



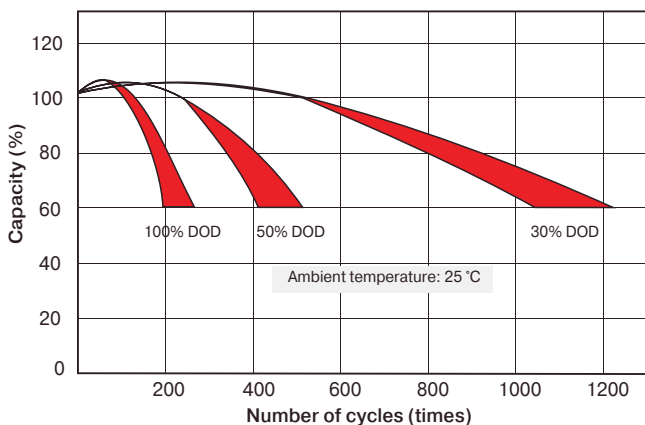
Capacity retention characteristics



Voltage and battery charging time in cyclic use



Battery life in cyclic operation



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 h	2 h	3 h	4 h	5 h	6 h	10 h	20 h
	1.67	CC(A)	319.1	198.7	172.5	101.4	58.9	34.0	25.4	20.39	16.79	15.45	10.30
CP(W)		3637.2	2265.6	1966.8	1155.6	670.8	387.6	289.2	232.50	191.40	176.16	117.42	58.74
1.70	CC(A)	288.6	190.1	165.0	98.6	56.7	33.1	24.7	20.20	16.63	15.30	10.20	5.10
	CP(W)	3289.8	2167.2	1881.0	1124.4	646.2	376.8	281.4	230.22	189.54	174.42	116.28	58.14
1.75	CC(A)	258.1	181.4	157.5	94.1	55.6	32.4	24.2	20.00	16.46	15.15	10.10	5.05
	CP(W)	2941.8	2068.2	1795.8	1072.8	634.2	369.6	276.0	228.00	187.68	172.74	115.14	57.60
1.80	CC(A)	234.6	172.8	150.0	90.5	53.5	31.5	23.5	19.80	16.30	15.00	10.00	5.00
	CP(W)	2674.2	1969.8	1710.0	1032.0	610.2	359.4	268.2	225.72	185.82	171.00	114.00	57.00
1.85	CC(A)	226.0	166.4	144.5	87.2	51.4	30.2	22.6	19.01	15.65	14.40	9.60	4.90
	CP(W)	2575.8	1897.2	1647.0	993.6	585.6	345.0	257.4	216.72	178.38	164.16	109.44	55.80

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