

SL12-65 Deep Cycle battery provides superior high integrity and reliability. It is specially designed for frequent cycling charge and discharge. By using strong grids, thick plate and special active material are designed for repeated deep-discharge applications. It is designed for up to 10 years in standby service or more than 260 cycles at 100% discharge in cycle service.



Battery case: Flame-retardant



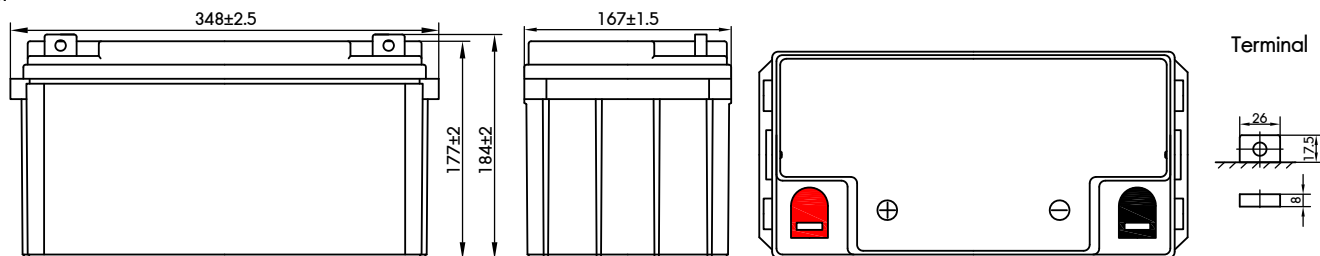
Specification

Cells Per Unit	6
Voltage Per Unit	12
Capacity	65Ah @10hr-rate to 1.8V per cell @25°C
Weight	Approx. 20.2 kg
Max. Discharge Current	650A (5sec)
Internal Resistance	Approx. 5mΩ
Operating Temperature Range	Discharge: -15°C~50°C Charge: -15°C~40°C Storage: -15°C~40°C
Nominal Operating Temperature Range	25°C±3°C
Float Charging Voltage	13.5 to 13.8VDC per unit @25°C
Recommended Max. Charging Current Limit	19.5A
Equalization and Cycle Service	14.4 to 14.8VDC per unit @25°C
Self Discharge	Battery can be stored for more than 6 months at 25°C, self-discharge rate less than 3% per month. Charging before use is recommended. For higher temperature, the time interval will be shorter.
Terminal	L terminal to accept M6 nut & bolt
Container Material	Flammability resistance of UL94-V0

Dimension

Dimension: 348 (L) x 167 (W) x 177 (H) x 184 (TH)

Unit: mm



Constant Current Discharge Characteristics : A (25°C)

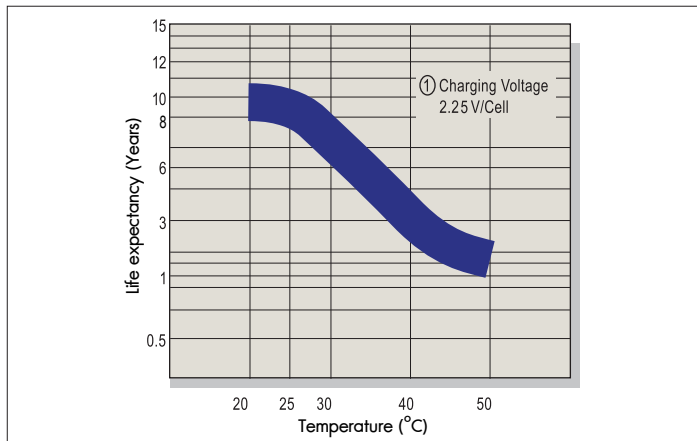
F.V/Time	5min	15min	30min	1h	3h	5h	10h	20h
1.60V	230	112	70.7	42.4	19.4	12.84	6.77	3.63
1.67V	218	110	69.3	41.9	19.2	12.65	6.74	3.62
1.70V	204	107	67.6	41.1	18.8	12.37	6.69	3.59
1.75V	189	103	65.4	39.9	18.2	11.98	6.62	3.56
1.80V	171	96	62.6	38.2	17.2	11.41	6.50	3.50
1.85V	148	84	58.7	35.4	15.7	10.57	6.30	3.39

Constant Current Discharge Characteristics : W/Cell (25°C)

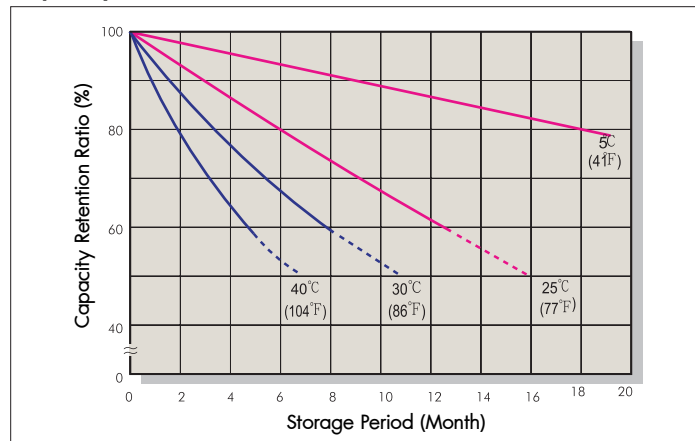
F.V/Time	5min	15min	30min	1h	3h	5h	10h	20h
1.60V	373	237	136.6	80.6	38.3	25.0	13.32	7.20
1.67V	356	225	134.1	79.7	37.7	24.8	13.26	7.19
1.70V	332	210	131.2	78.4	36.9	24.3	13.15	7.15
1.75V	300	192	127.3	76.8	35.7	23.6	12.97	7.06
1.80V	257	170	121.9	74.7	33.8	22.5	12.74	6.95
1.85V	200	143	114.2	70.3	31.3	21.0	12.46	6.76

All mentioned values are average values

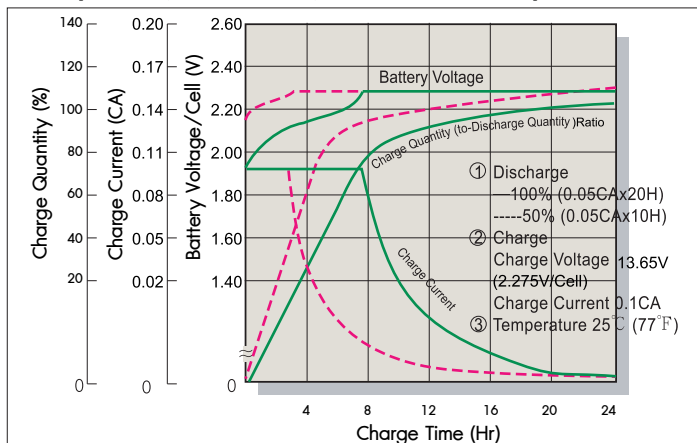
Trickle (or Float) Design Life



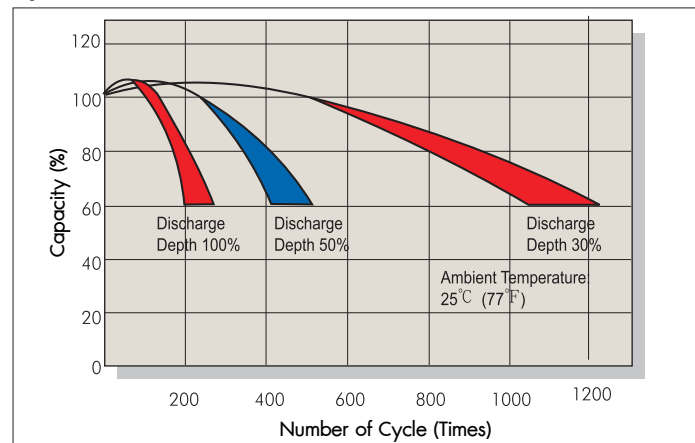
Capacity Retention Characteristic



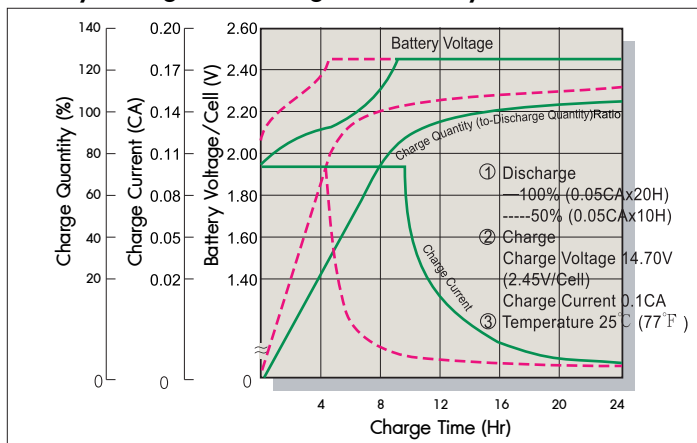
Battery Voltage and Charge Time for Standby Use



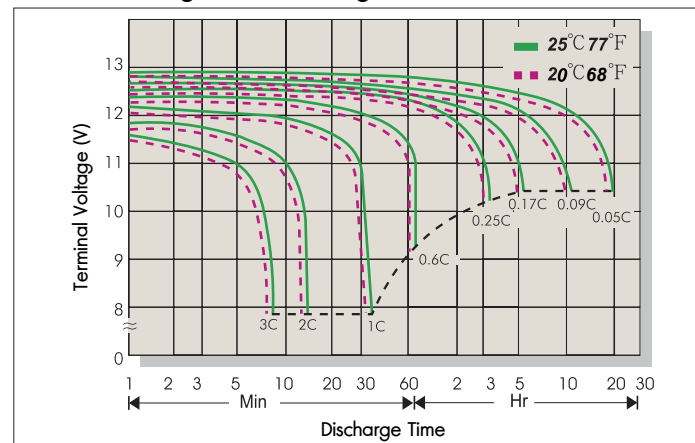
Cycle Service Life



Battery Voltage and Charge Time for Cycle Use



Terminal Voltage and Discharge Time



Charging Procedures

Application	Charge Voltage (V/cell)			Max. Charge Current
	Temperature	Set Point	Allowable Range	
Cycle Use	25°C	25°C	2.40~2.50	0.3C
Standby Use	25°C	25°C	2.25~2.30	

Discharge Current VS Discharge Voltage

Final Discharge Voltage (V/cell)	1.75	1.7	1.65	1.6
Discharge Current (A)	0.2C>0.5C	0.2C<0.5C	0.2C<0.5C	0.2C<0.5C

Effect of Temperature on Capacity (20HR)

Temperature	Dependency of Capacity (20HR)
40°C	102%
25°C	100%
0°C	85%
-15°C	65%

Self-discharge Characteristics

Charge Voltage (V/cell)	Preservation Rate
3 months	91%
6 months	82%
9 months	64%