



# GP 12650

## 12V 65.0Ah

GP 12650 is a general purpose battery with 3-5 years in standby service or more than 260 cycles at 100% discharge in cycle service. As with all CSB batteries, all are rechargeable, highly efficient, leak proof and maintenance free.

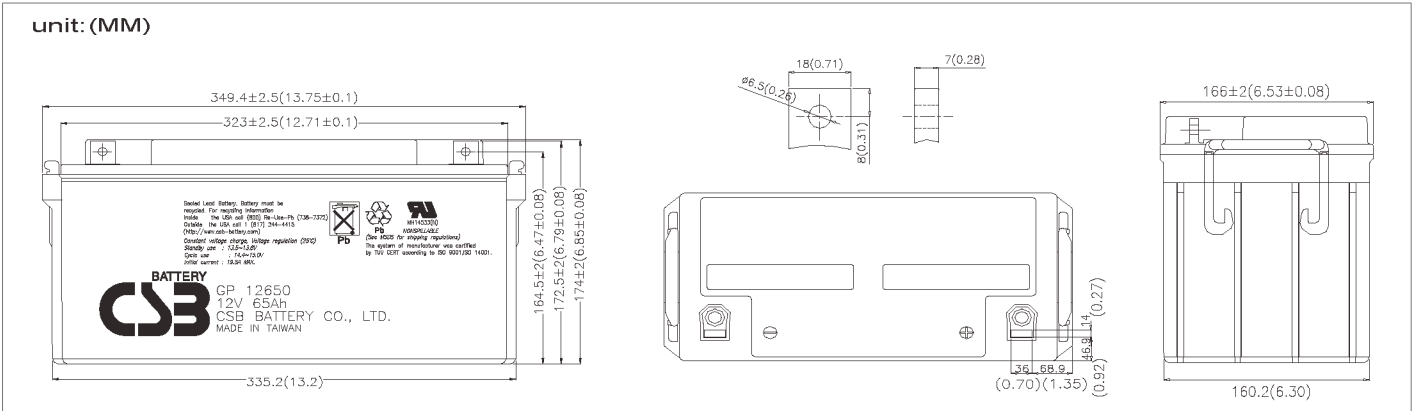


### Specification

Cells Per Unit	6
Voltage Per Unit	12
Capacity	65Ah @ 20hr-rate to 1.75V per cell @25°C(77°F)
Weight	Approx. 22.0kg(48.6 lbs)
Maximum Discharge Current	500A(5sec)
Internal Resistance	Approx. 8mΩ
Operating Temperature Range	Discharge: -20°C ~50°C (-4°F~122°F) Charge: 0°C ~40°C (32°F~104°F) Storage: -20°C ~40°C (-4°F~104°F)
Nominal Operating Temperature Range	25°C±3°C (77°F±5°F)
Float Charging Voltage	13.5 to 13.8 VDC/unit Average at 25°C(77°F)
Recommended Maximum Charging	19.5A
Current Limit	
Equalization and Cycle Service	14.4 to 15.0 VDC/unit Average at 25°C(77°F)
Self Discharge	CSB Batteries can be stored for more than 6 months at 25°C (77°F). Please charge batteries before using. For higher temperatures the time interval will be shorter.
Terminal	Bolt & Nut
Container Material	Polypropylene(UL94-HB)*Flammability resistance of UL94-V2 can be available upon request.

CSB-manufactured batteries are UL-recognized components under UL924 and UL1989. CSB is also certified by ISO 9001 and ISO 14001.

### Dimensions



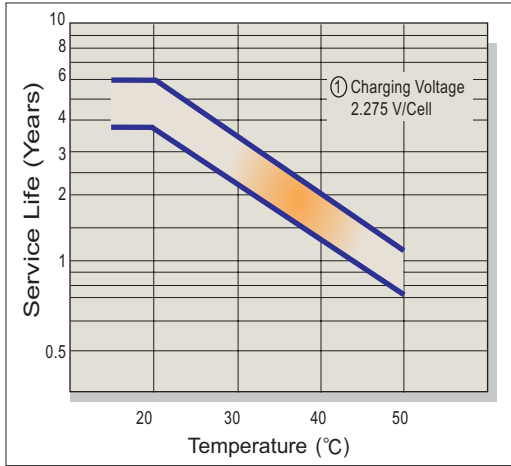
### Constant Current Discharge Characteristics Unit:A(25°C,77°F)

F.V/Time	5MIN	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	271	173	132	79.9	47.2	27.3	19.4	15.1	12.4	8.08	6.58	3.41
1.67V	242	162	125	78.3	47.1	27.2	19.3	15.0	12.3	8.00	6.48	3.26
1.70V	229	157	123	77.6	47.0	27.2	19.3	15.0	12.3	7.96	6.43	3.20
1.75V	208	147	117	75.5	46.5	27.1	19.2	15.0	12.2	7.86	6.32	3.09
1.80V	186	137	111	73.4	45.9	27.0	19.1	14.9	12.1	7.76	6.21	2.98
1.85V	164	127	105	71.3	45.4	26.9	19.0	14.9	12.0	7.66	6.10	2.87

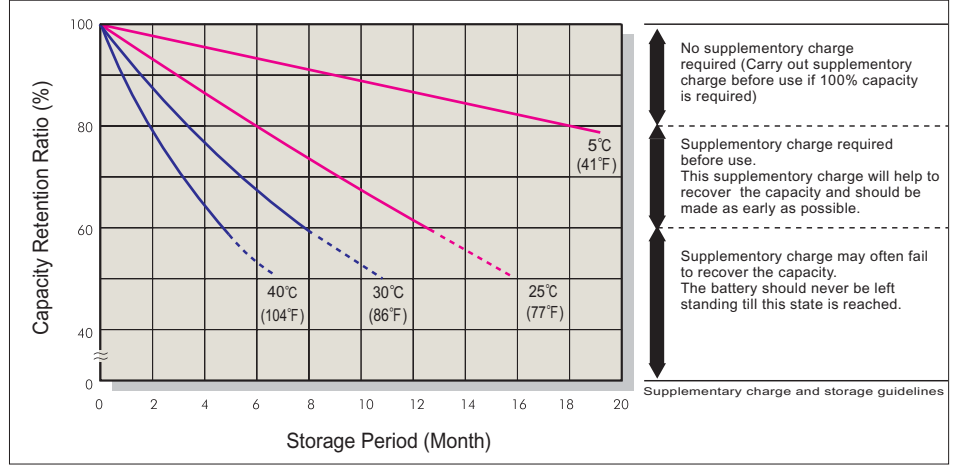
### Constant Power Discharge Characteristics Unit:Watt(25°C,77°F)

F.V/Time	5MIN	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	3250	2080	1580	959	566	327	232	181	148	97.0	79.0	40.9
1.67V	2900	1940	1503	939	565	326	231	180	147	96.0	77.7	39.2
1.70V	2750	1880	1470	931	564	326	231	180	147	95.5	77.1	38.4
1.75V	2490	1760	1400	906	558	325	230	180	146	94.3	75.8	37.1
1.80V	2230	1640	1330	881	551	324	229	179	145	93.1	74.5	35.7
1.85V	1970	1520	1260	856	545	323	228	179	144	91.9	73.2	34.4

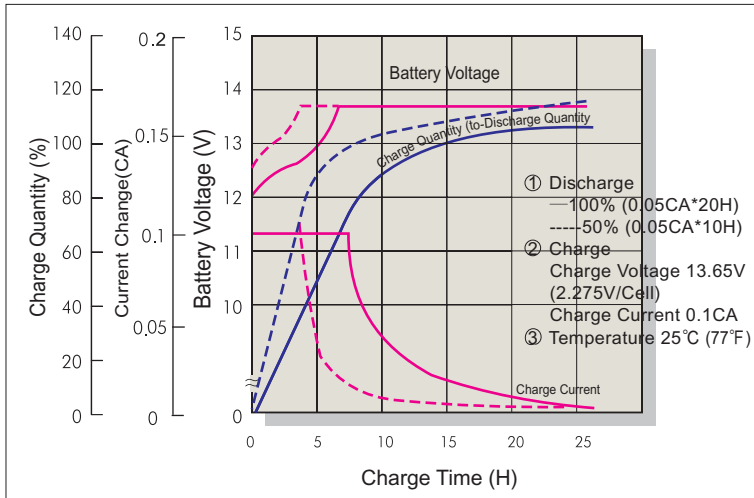
### Trickle (or Float) Service Life



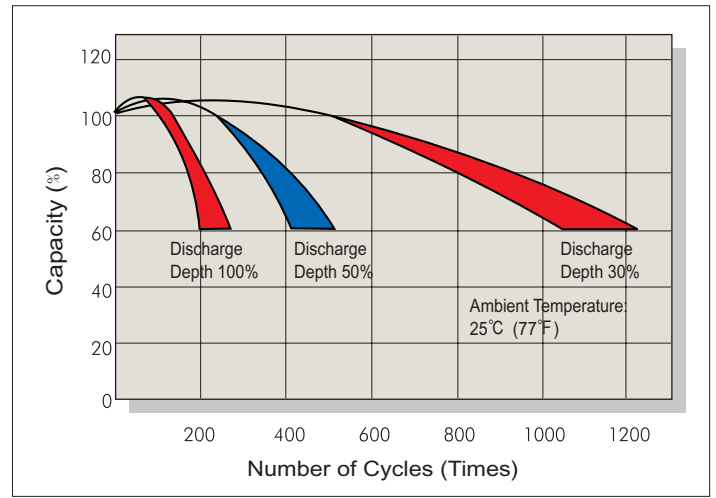
### Capacity Retention Characteristic



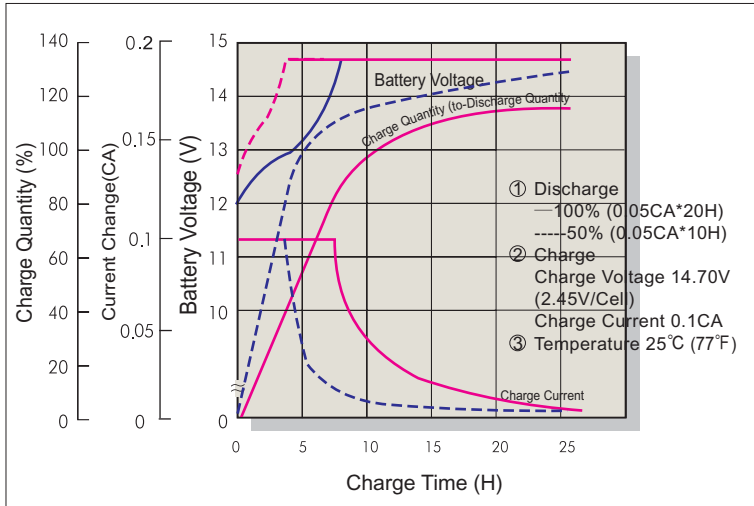
### Battery Voltage and Charge Time for Standby Use



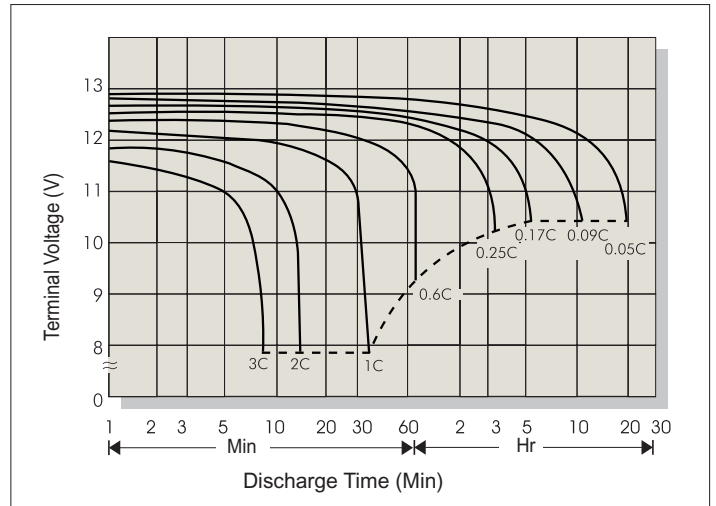
### Cycle Service Life



### Battery Voltage and Charge Time for Cycle Use



### Terminal Voltage (V) and Discharge Time (25°C 77°F)



### Charging Procedures

Application	Charge Voltage (V/Cell)			Max. Charge Current
	Temperature	Set Point	Allowable Range	
Cycle Use	25°C (77°F)	2.45	2.40~2.50	0.3CA
Standby	25°C (77°F)	2.275	2.25~2.30	

### Discharge Current VS. Discharge Voltage

Discharge Current (A)	0.2C>(A)	0.2C<(A)<0.5C	0.5C<(A)<1.0C	(A)>1.0C
Final Discharge Voltage V/Cell	1.75	1.70	1.55	1.30