



GP 12120

12V 12.0Ah

GP 12120 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.



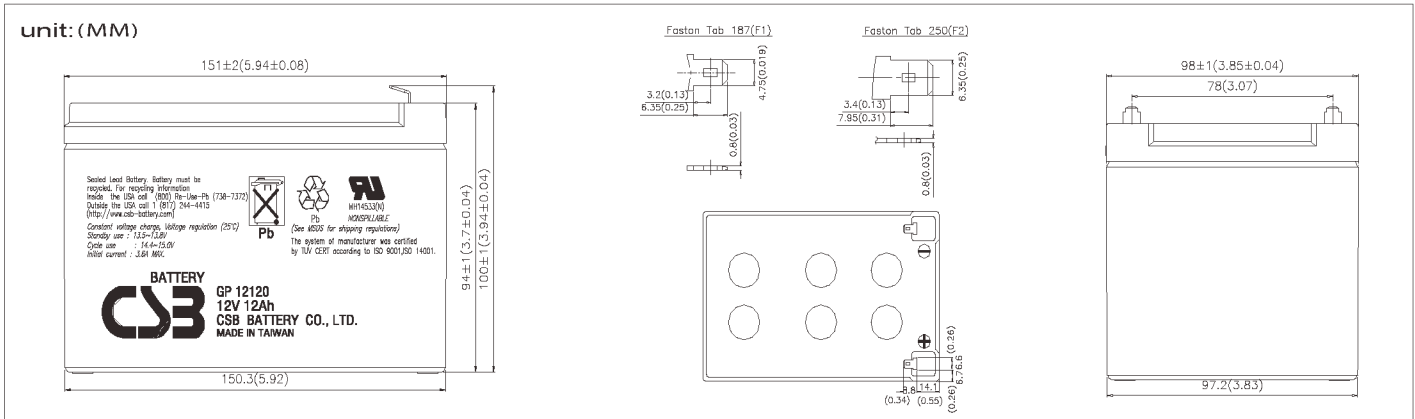
Specification

Cells Per Unit	6
Voltage Per Unit	12
Capacity	12Ah @ 20hr-rate to 1.75V per cell @25°C(77°F)
Weight	Approx. 3.92kg(8.64 lbs)
Maximum Discharge Current	150A/180A(5sec)
Internal Resistance	Approx. 20mΩ
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 Current Limit	3.60A
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	Faston Tab 187/250
Container Material	-ABS (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)

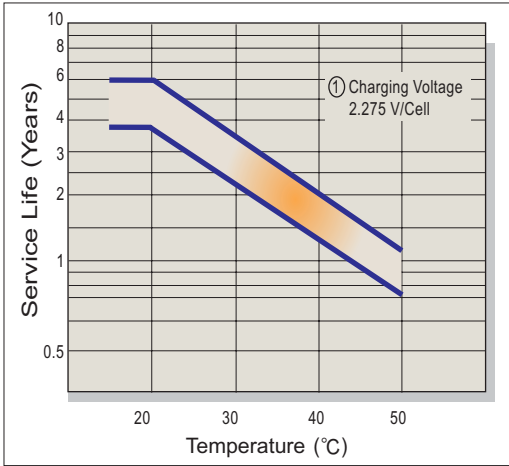
F.V/Time	5MIN	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	48.2	31.4	24.1	14.8	8.83	5.12	3.66	2.89	2.33	1.53	1.23	0.630
1.67V	44.7	30.0	23.4	14.7	8.72	5.06	3.65	2.88	2.32	1.52	1.22	0.609
1.70V	43.2	29.4	23.1	14.6	8.67	5.03	3.64	2.88	2.31	1.52	1.21	0.600
1.75V	40.1	28.0	22.3	14.3	8.50	4.93	3.62	2.86	2.30	1.51	1.20	0.585
1.80V	37.0	26.7	21.4	14.1	8.33	4.83	3.60	2.84	2.28	1.50	1.18	0.570
1.85V	33.9	25.3	20.6	13.8	8.16	4.73	3.58	2.82	2.27	1.49	1.17	0.555

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

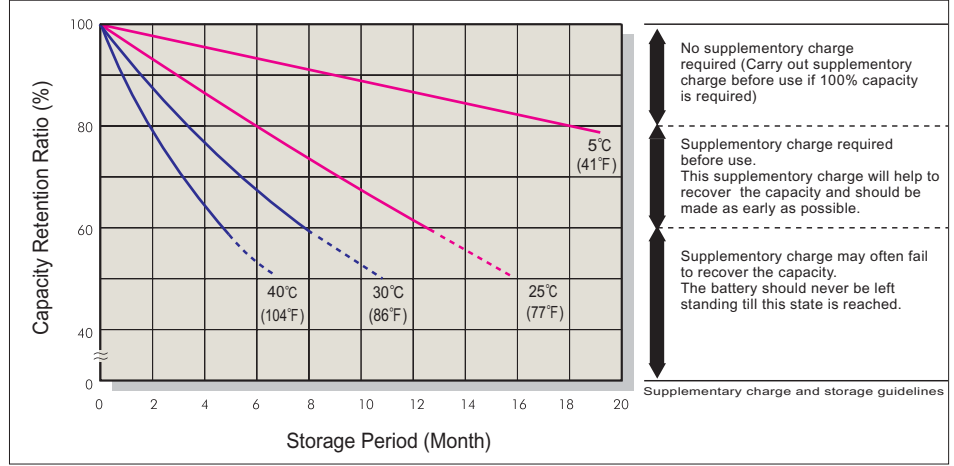
F.V/Time	5MIN	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	578	377	289	178	106	61.7	43.9	34.1	27.9	18.1	14.7	7.50
1.67V	536	360	281	176	105	61.6	43.8	34.0	27.8	18.0	14.6	7.30
1.70V	518	353	277	175	104	61.5	43.7	34.0	27.7	18.0	14.5	7.21
1.75V	481	337	267	172	102	61.2	43.5	33.8	27.5	17.8	14.3	7.02
1.80V	444	320	257	169	100	60.9	43.2	33.6	27.3	17.6	14.1	6.83
1.85V	407	304	247	166	98.0	60.6	43.0	33.4	27.1	17.4	13.9	6.64

* All mentioned values are average values

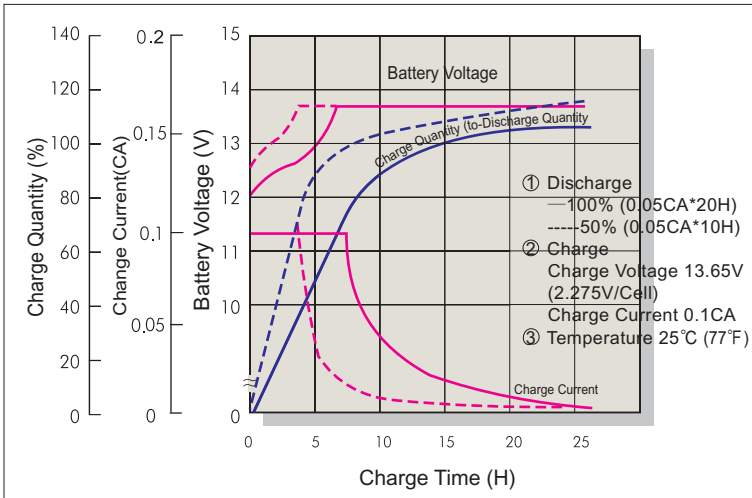
Trickle (or Float) Service Life



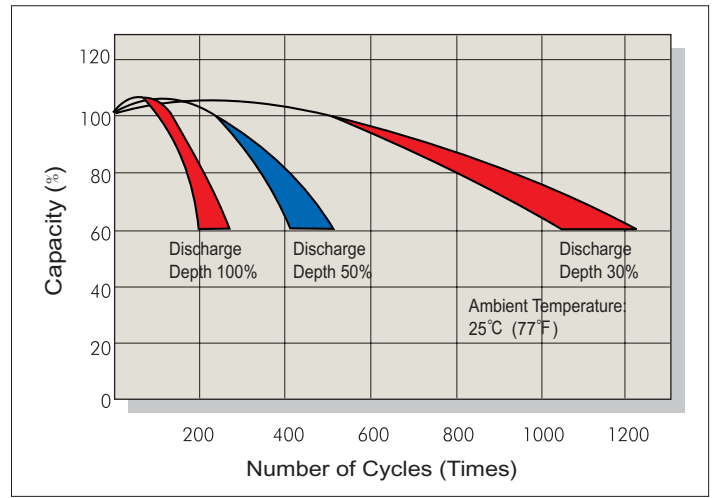
Capacity Retention Characteristic



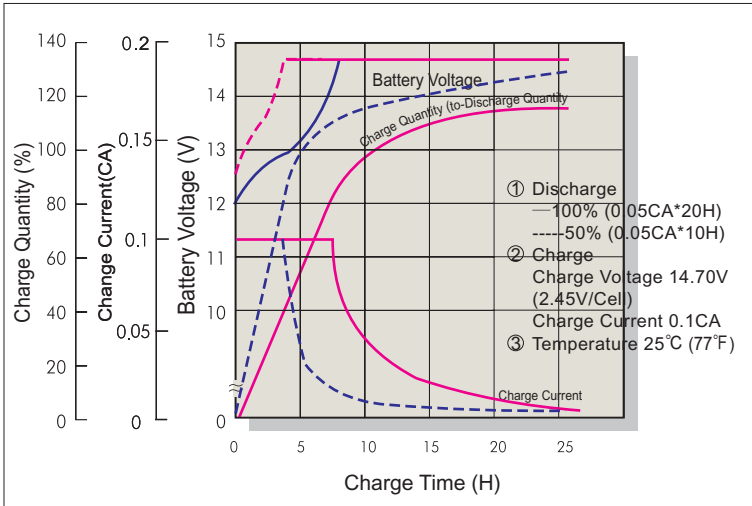
Battery Voltage and Charge Time for Standby Use



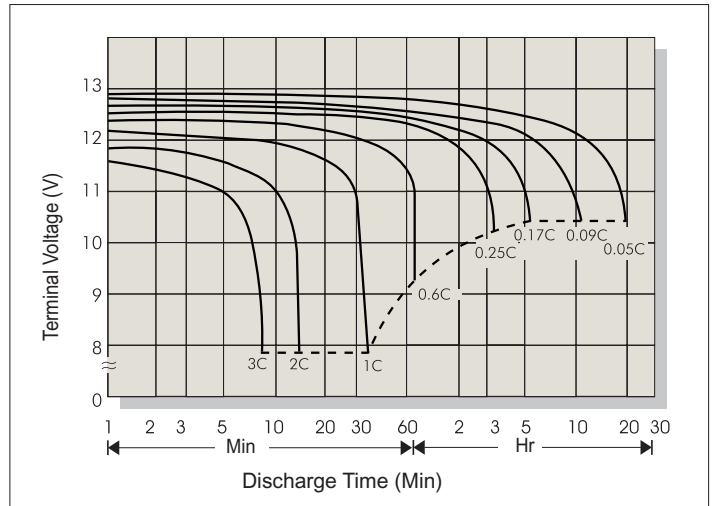
Cycle Service Life



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