



GPL 12120

12V 12Ah

GPL 12120 is a general purpose battery up to 8 years expected life under normal float charge. 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. 4.1 kg (9.04 lbs)
Maximum Discharge Current	150A/180A(5sec)
Internal Resistance	Approx. 14 mΩ
Operating Temperature Range	Discharge: -15°C~50°C (5°F~122°F) Charge: -15 °C~40°C (5°F~104°F) Storage: -15°C~40°C (5°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	3.6A
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	F1/F2-Faston Tab187/250
Container Material	ABS(UL 94-HB/File E50263)*Flammability resistance of (UL 94-V0/File E88637) can be available upon request.



MH14533(N)



ISO9001

No :041005117



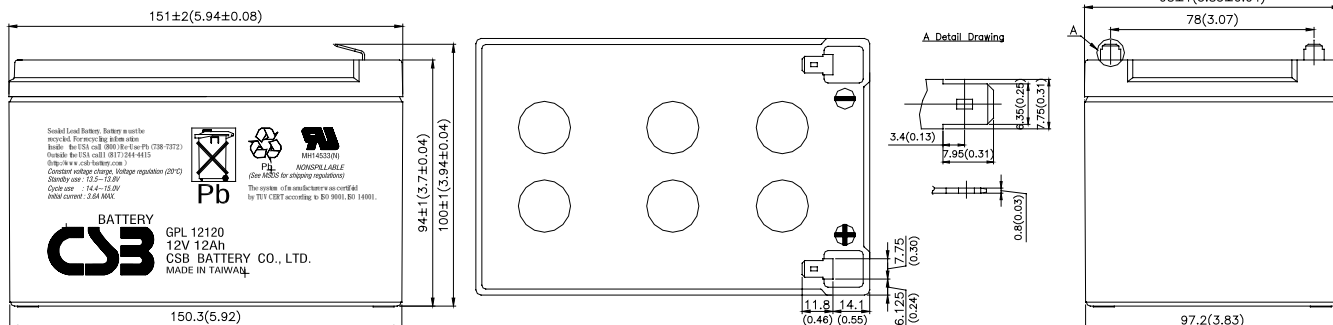
ISO 14001

NO.UM 1-12-0045

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

Dimensions

unit: (MM)



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

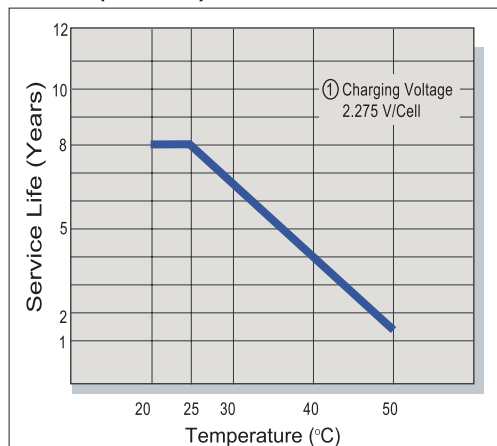
F.V/Time	5MIN	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	40.8	27.8	20.2	12.1	7.70	4.58	3.27	2.56	2.15	1.50	1.23	0.625
1.67V	38.1	26.5	19.5	11.8	7.57	4.48	3.22	2.52	2.12	1.48	1.22	0.615
1.70V	36.8	25.9	19.3	11.6	7.46	4.43	3.19	2.51	2.11	1.47	1.21	0.611
1.75V	34.8	24.7	18.6	11.4	7.33	4.34	3.15	2.48	2.08	1.44	1.18	0.600
1.80V	32.8	23.4	17.9	11.1	7.16	4.26	3.10	2.44	2.04	1.42	1.16	0.586
1.85V	30.6	21.9	17.1	10.8	7.01	4.17	3.05	2.38	2.00	1.39	1.13	0.575

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

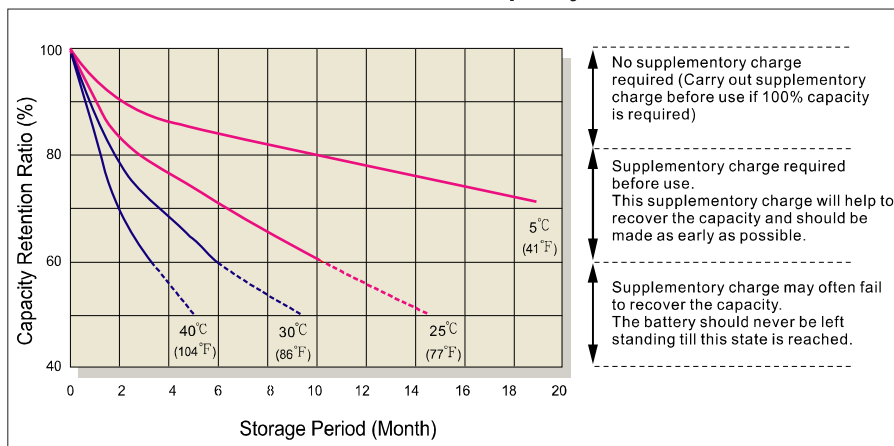
F.V/Time	5MIN	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	436	345	270	163	90.2	51.4	38.2	30.1	25.6	17.9	14.5	7.45
1.67V	412	319	250	153	87.5	50.5	37.6	29.7	25.2	17.5	14.4	7.35
1.70V	400	308	241	149	86.1	50.0	37.2	29.5	25.0	17.4	14.3	7.28
1.75V	381	289	224	141	84.4	49.5	36.7	29.0	24.5	17.1	14.2	7.15
1.80V	363	270	208	134	82.0	48.8	36.0	28.5	24.0	16.9	13.9	7.01
1.85V	346	251	195	127	79.8	48.2	35.2	27.9	23.5	16.6	13.6	6.88

• All mentioned values are average values.

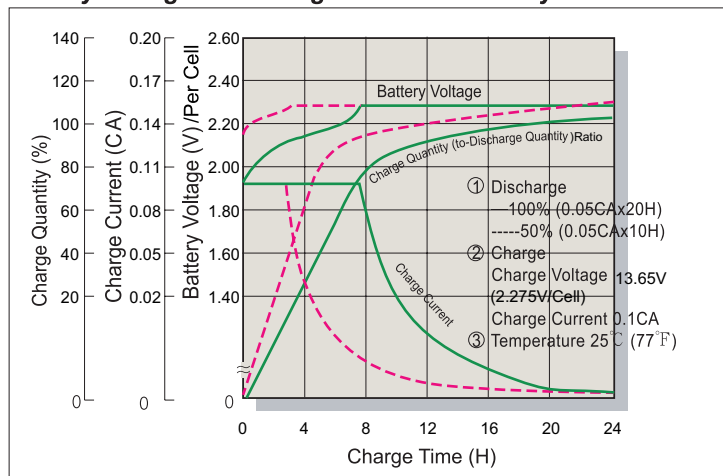
Trickle (or Float) Service Life



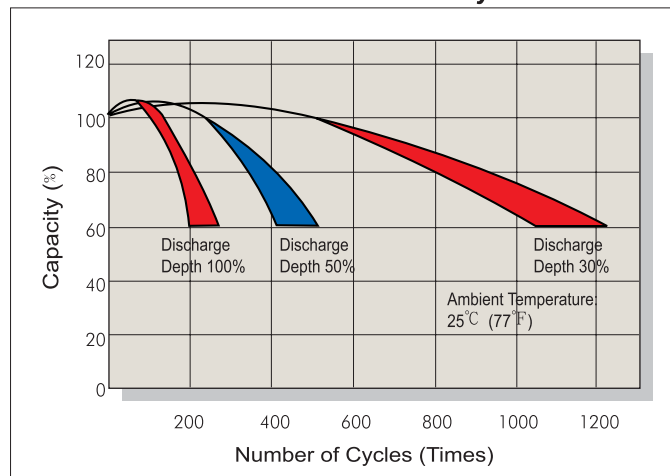
Capacity Retention Characteristic



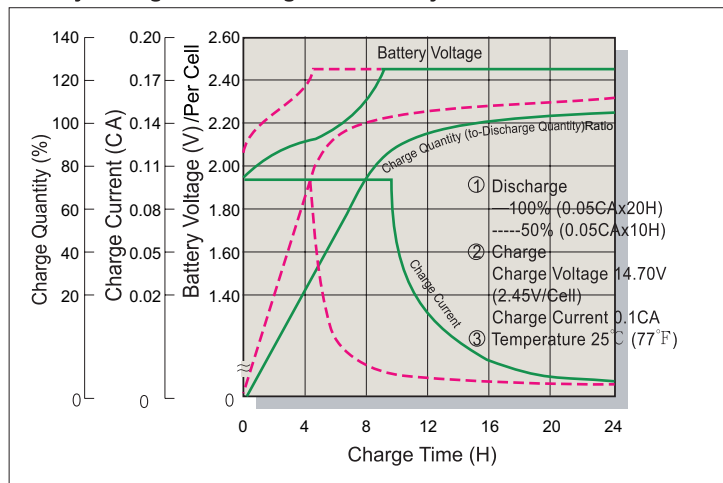
Battery Voltage and Charge Time for Standby Use



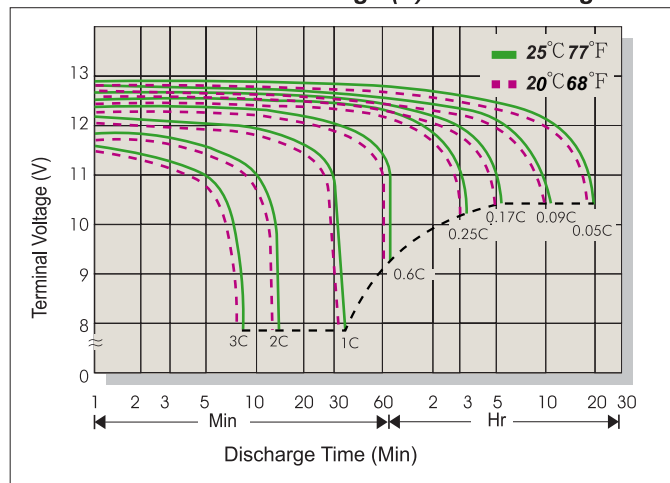
Cycle Service Life



Battery Voltage and Charge Time for Cycle Use



Terminal Voltage (V) and Discharge Time



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	0.3C
Standby	25°C (77°F)	2.275	2.25~2.30	

Discharge Current VS. Discharge Voltage

Final Discharge Voltage V/Cell	1.75	1.70	1.60	1.30
Discharge Current(A)	0.2C>(A)	0.2C<(A)<0.5C	0.5C<(A)<1.0C	(A)>1.0C

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