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# GP 12200 ▶ 12V 20Ah

GP 12200 is a general purpose battery up to 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

CellsPerUnit	6
Voltage PerUnit	12
Capacity	20 Ah@20hr-rateto1.75Vpercell @25°C (77°F)
Weight	Approx.6.4 kg(14.11 lbs)
Maximum DischargeCurrent	230A(5sec)
Internal Resistance	Approx.13 m?
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)
FloatCharging Voltage	13.5 to 13.8 VDC/unit Average at 25°C (77°F)
RecommendedMaximum Charging CurrentLimit	6 A
Equalization andCycleService	14.4 to 15.0 VDC/unit Average at 25°C (77°F)
SelfDischarge	CSBBatteries canbestoredformorethan6months at 25°C (77°F).Pleasecharge batteries beforeusing. For hightemperatures thertimeinterval willbeshorter.
Terminal	I1-Thread lead alloy recessed terminal to accept M5 bolt
Container Material	ABS(UL 94-HB/File E50263)*Flammability resistance of (UL 94-V0/File E88637) can be available upon request.

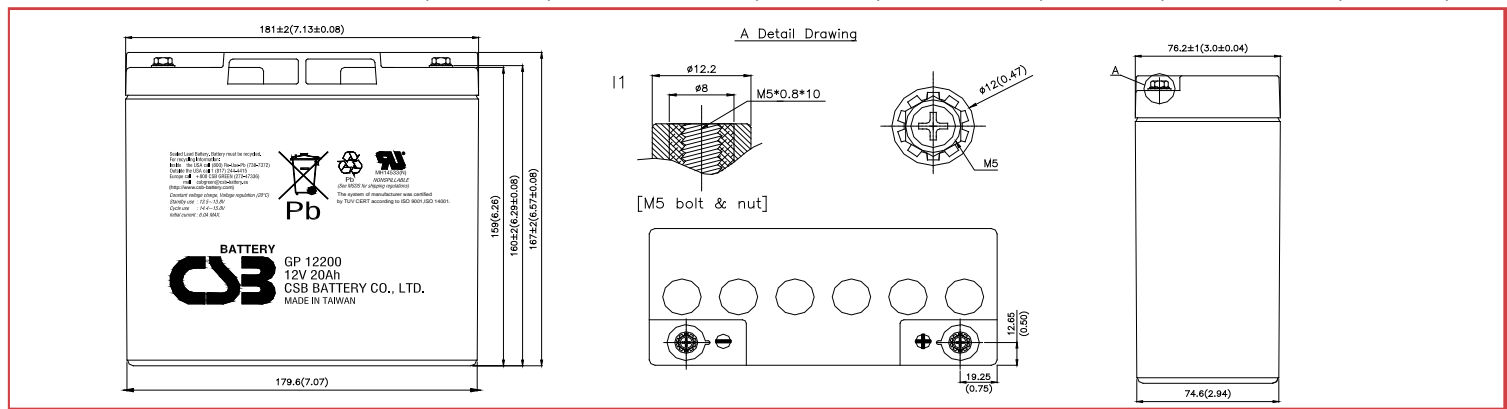


CSB-manufactured VRLA batteriesare UL-recognizedcomponents underUL924and UL1989.

CSBisalsocertifiedby ISO9001and ISO14001.

## ► Dimensions :

Overall Height (H)	Container height (h)	Length (L)	Width (W)	
Unit: mm (inch)	167±2 (6.57±0.08)	160±2 (6.29±0.08)	181±2 (7.13±0.08)	76.2±1 (3.0±0.04)



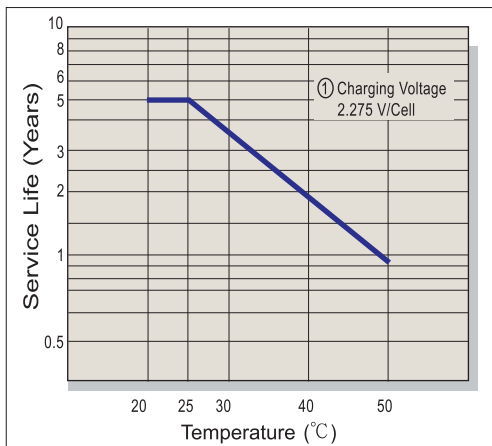
## Constant Current Discharge Characteristics Unit:A (25°C,77°F)

F.V/Time	5MIN	10MIN	15MIN	30MIN	60MIN	90MIN	2HR	3HR	5HR	8HR	10HR	20HR
1.60V	87.5	55.5	42.3	25.5	15.1	11.0	8.75	6.23	3.97	2.62	2.10	1.09
1.67V	77.7	51.8	39.7	24.9	15.0	10.9	8.69	6.22	3.94	2.60	2.07	1.04
1.70V	73.5	50.2	38.7	24.7	14.9	10.9	8.67	6.20	3.93	2.60	2.05	1.03
1.75V	66.4	47.0	37.1	24.2	14.8	10.7	8.54	6.17	3.92	2.59	2.03	1.00
1.80V	59.3	43.8	35.2	23.8	14.5	10.6	8.42	6.12	3.91	2.58	2.00	0.96
1.85V	52.2	40.5	33.7	23.2	14.3	10.4	8.29	6.07	3.90	2.57	1.96	0.92

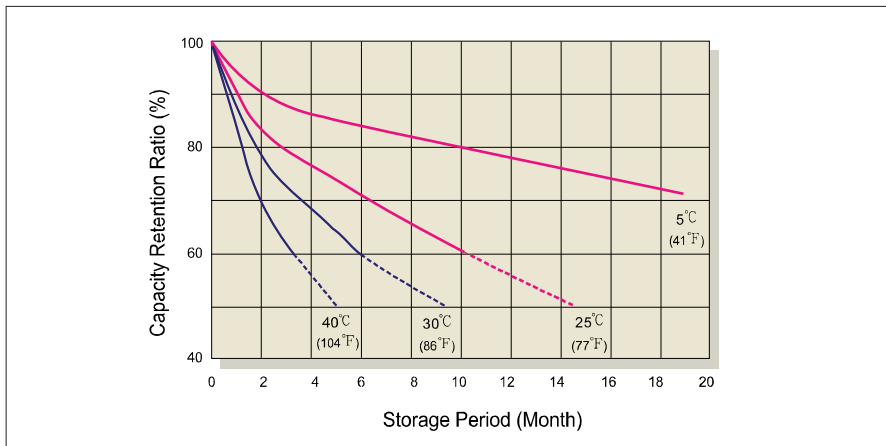
## Constant Power Discharge Characteristics Unit:W (25°C,77°F)

F.V/Time	5MIN	10MIN	15MIN	30MIN	60MIN	90MIN	2HR	3HR	5HR	8HR	10HR	20HR
1.60V	1050	666	507	306	181	132	105	74.7	47.6	31.4	25.2	13.1
1.67V	932	621	481	301	179	130	104	74.6	47.3	31.3	24.9	12.5
1.70V	882	602	466	299	178	129	103	74.3	47.2	31.2	24.8	12.3
1.75V	797	564	446	292	176	128	102	74.0	47.1	31.1	24.4	11.9
1.80V	712	525	421	285	174	126	101	73.4	46.9	31.0	24.0	11.5
1.85V	627	487	404	278	171	125	100	72.8	46.8	30.9	23.6	11.1

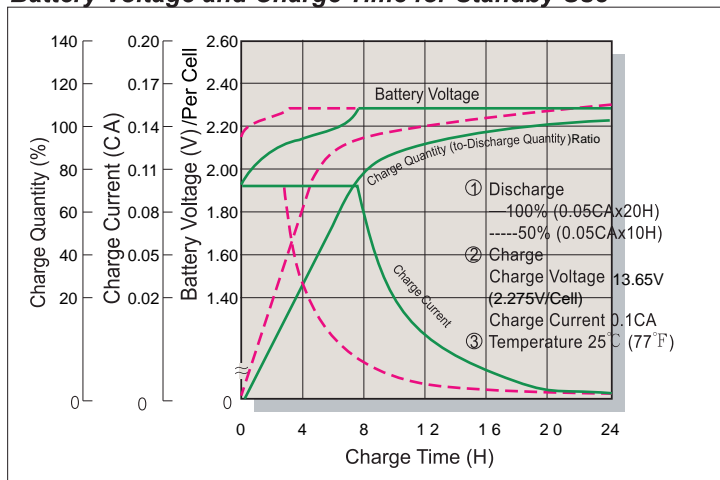
### Trickle (or Float) Service Life



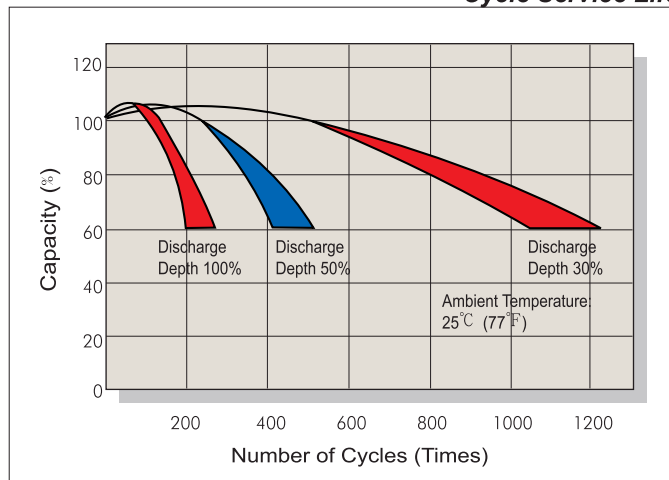
### Capacity Retention Characteristic



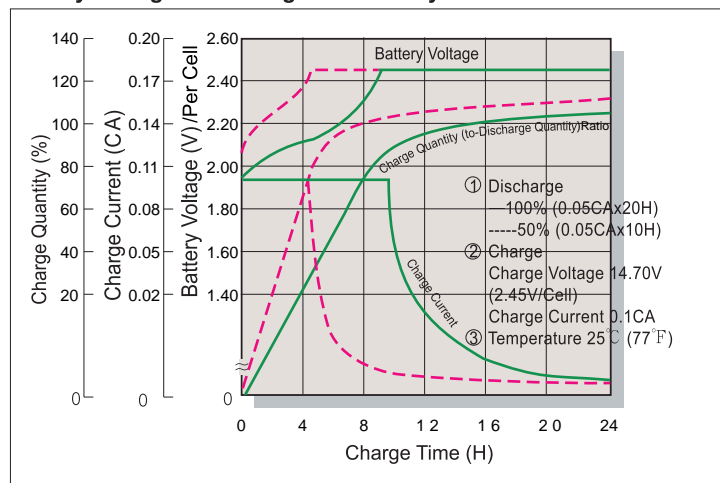
### Battery Voltage and Charge Time for Standby Use



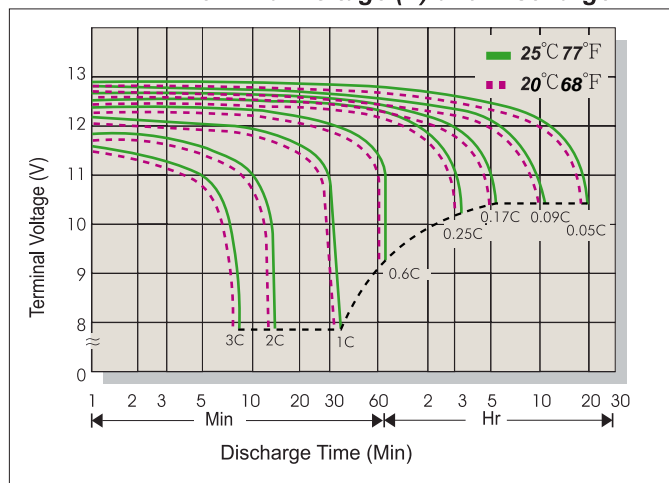
### Cycle Service Life



### 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	> 1.0C

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