



# GPL series GPL 12520



## Valve Regulated Lead Acid Battery

Maintenance-Free Sealed Lead Acid Battery.  
Absorbent Glass Mat (AGM) technology for efficient gas recombination of up to 99%.

### General Design for Standby Power Applications

#### 【Design Life】

Up to 10 Years in Standby Service at 25°C  
Eurobat (20°C) : >12 YEARS VERY LONG LIFE

#### 【Operating Temperature Range】

Nominal Operating Temperature : 25°C (77°F)  
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)

#### 【Float Charging Voltage】

13.5 ~ 13.8 VDC/Unit at 25°C (77°F)

#### 【Equalization Charging Voltage】

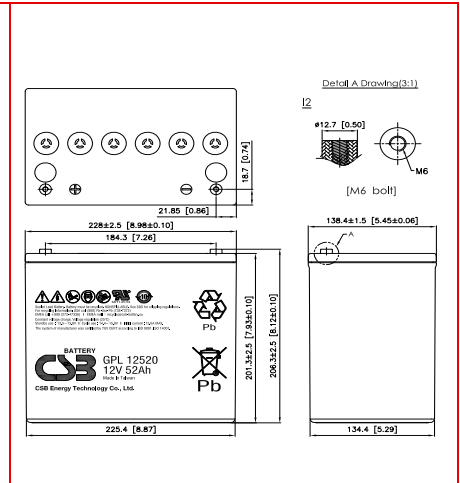
14.4 ~ 15.0 VDC/Unit at 25°C (77°F)

#### 【Self Discharge】

Less than 10% after 90 days, can be stored up to 6 months at 25°C (77°F);  
Fully recharging is required before usage, and charged sooner if stored at higher temperature than 25°C (77°F).

### Specification Design according with IEC 60896-21/22:2004

Nominal Voltage	12V (6 cells per unit)	
Nominal Capacity	52 Ah @20hr-rate to 1.75V per cell @25°C (77°F)	
Weight	Approx. 17.80 Kg (39.23 lbs)	
Maximum Discharge Current	500A (5sec)	
Internal Resistance	Approx. 5.1mΩ	
Short Circuit Current	1485A	
Maximum Charge Current	15.60A	
Terminal types	I2 thread lead alloy terminal to accept M6 bolt	
Terminal tightening torque	51.7±10.3 Kgf-cm / 44.9±9.0 Lbf-in / 5.10±1.0 N-m	
Container Material	PP (UL 94-HB) & Flame Retardant (94-V0) available upon request	
Dimensions	Length (L)	228.0±2.5 mm 8.98±0.10 inch
	Width (W)	138.4±1.5 mm 5.45±0.06 inch
	Container Height (h)	201.3±2.5 mm 7.93±0.10 inch
	Overall Height (H)	206.3±2.5 mm 8.12±0.10 inch



### 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	225	155	116	67.2	38.5	27.7	21.7	15.2	9.66	6.35	5.17	2.66
1.67V	208	144	110	64.7	38.1	27.4	21.4	15.0	9.57	6.31	5.15	2.65
1.70V	195	138	108	63.6	37.8	27.3	21.3	14.9	9.53	6.28	5.14	2.64
1.75V	177	128	103	61.2	37.0	26.7	20.7	14.7	9.44	6.17	5.08	2.60
1.80V	159	119	95.7	58.7	35.7	26.0	20.3	14.3	9.22	6.04	4.94	2.56
1.85V	142	110	89.3	55.6	33.3	24.8	19.0	13.5	8.71	5.74	4.69	2.43

### 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	2392	1684	1290	770	447	325	250	176	114	74.7	61.6	31.7
1.67V	2176	1589	1235	748	445	323	247	175	113	74.4	61.2	31.6
1.70V	2081	1540	1208	737	443	322	246	174	112	74.2	60.7	31.4
1.75V	1914	1449	1160	710	434	315	242	171	111	73.9	60.3	31.3
1.80V	1747	1359	1093	683	419	308	235	169	110	72.4	59.5	30.7
1.85V	1584	1258	1031	649	395	295	223	161	105	69.6	56.7	29.4

Please refer to the official site for the latest rating confirmation. URL: [www.csb-battery.com](http://www.csb-battery.com)

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Recognized under UL 1989,  
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