



# GPL series GPL 12400



## 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) : 10/12 YEARS 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】

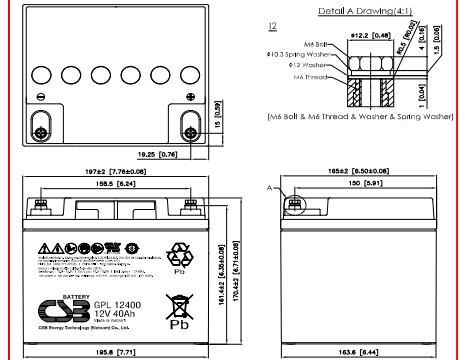
14.4 ~ 15.0 VDC/Unit at 25°C (77°F)

#### 【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 61056-1/2:2012

Nominal Voltage	12V (6 cells per unit)		
Nominal Capacity	40 Ah @20hr-rate to 1.75V per cell @25°C (77°F)		
Weight	Approx. 12.92 Kg (28.48 lbs)		
Maximum Discharge Current	400A (5sec)		
Internal Resistance	Approx. 8.5mΩ		
Short Circuit Current	1182A		
Maximum Charge Current	12.00A		
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	ABS (UL 94-HB) & Flame Retardant (94-V0) available upon request		
Dimensions	Length (L)	197.0±2.0 mm	7.76±0.08 inch
	Width (W)	165.0±2.0 mm	6.50±0.08 inch
	Container Height (h)	170.4±2.0 mm	6.71±0.08 inch
	Overall Height (H)	170.4±2.0 mm	6.71±0.08 inch



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

F.V/Time	5 MIN	10MIN	15MIN	30MIN	60MIN	90MIN	2HR	3HR	5HR	8HR	10HR	20HR
1.60V	166	111	83.7	49.0	28.6	20.8	16.5	11.9	7.68	5.12	4.21	2.25
1.67V	153	107	82.0	48.5	28.4	20.7	16.4	11.8	7.65	5.09	4.18	2.24
1.70V	144	103	80.7	48.1	28.2	20.7	16.3	11.7	7.62	5.08	4.17	2.23
1.75V	130	96.2	77.5	46.9	27.8	20.5	16.2	11.6	7.56	5.04	4.14	2.22
1.80V	117	87.3	71.0	44.8	27.0	20.0	15.9	11.4	7.41	4.95	4.06	2.18
1.85V	94.2	78.1	61.8	41.3	25.4	19.1	15.1	10.9	7.09	4.74	3.90	2.10

### 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	1661	1162	905	548	326	240	191	138	91.1	60.8	50.0	26.8
1.67V	1552	1122	888	544	324	239	190	137	90.8	60.6	49.8	26.7
1.70V	1497	1095	874	540	323	238	189	136	90.6	60.5	49.7	26.6
1.75V	1404	1038	837	530	319	237	188	135	90.0	60.1	49.4	26.5
1.80V	1226	967	776	511	311	233	185	134	88.5	59.1	48.5	26.1
1.85V	1011	853	689	478	295	222	177	129	85.1	56.8	46.7	25.1

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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