



# GP series GP 645



## Valve Regulated Lead Acid Battery

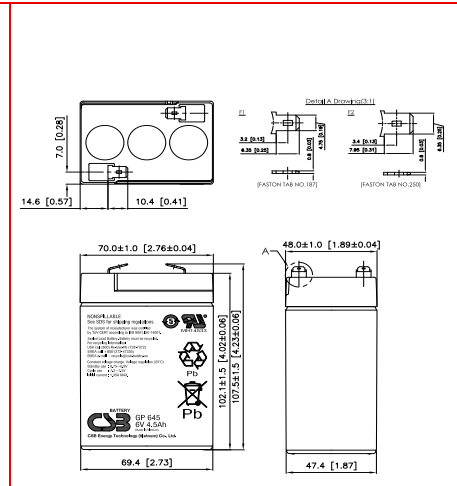
Maintenance-Free Sealed Lead Acid Battery.  
Absorbent Glass Mat (AGM) technology for efficient gas recombination of up to 99%.

### General Design for Standby Power Applications

<b>【Design Life】</b> Up to 5 Years in Standby Service at 25°C Eurobat (20°C) : 3-5 YEARS STANDARD COMMERCIAL	<b>【Float Charging Voltage】</b> 6.75 ~ 6.90 VDC/Unit at 25°C (77°F)
<b>【Operating Temperature Range】</b> 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)	<b>【Equalization Charging Voltage】</b> 7.2 ~ 7.5 VDC/Unit at 25°C (77°F)
	<b>【Self Discharge】</b> 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	6V (3 cells per unit)	
Nominal Capacity	4.5 Ah @20hr-rate to 1.75V per cell @25°C (77°F)	
Weight	Approx. 0.84 Kg (1.85 lbs)	
Maximum Discharge Current	60/90 (5sec)	
Internal Resistance	Approx. 18.5mΩ	
Short Circuit Current	137A	
Maximum Charge Current	1.35A	
Terminal types	F1/F2 terminal -Faston Tab 187/250	
Terminal tightening torque	--	
Container Material	ABS (UL 94-HB) & Flame Retardant (94-V0) available upon request	
Dimensions	Length (L)	70.0±1.0 mm      2.76±0.04 inch
	Width (W)	48.0±1.0 mm      1.89±0.04 inch
	Container Height (h)	102.1±1.5 mm      4.02±0.06 inch
	Overall Height (H)	107.5±1.5 mm      4.23±0.06 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	18.7	12.3	9.08	5.37	3.11	2.26	1.80	1.26	0.810	0.535	0.439	0.234
1.67V	17.6	11.8	8.88	5.31	3.09	2.25	1.79	1.25	0.808	0.533	0.438	0.233
1.70V	17.0	11.6	8.79	5.28	3.08	2.23	1.78	1.24	0.807	0.532	0.437	0.232
1.75V	16.1	11.2	8.62	5.21	3.06	2.22	1.77	1.23	0.804	0.531	0.435	0.229
1.80V	15.0	10.7	8.42	5.13	3.03	2.21	1.76	1.22	0.801	0.529	0.431	0.225
1.85V	13.8	10.3	8.21	5.04	3.00	2.18	1.74	1.21	0.798	0.528	0.428	0.221

### 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	111	72.4	54.8	32.9	19.3	14.0	11.1	8.05	5.33	3.55	2.90	1.60
1.67V	103	69.7	53.3	32.7	19.2	13.9	11.0	7.98	5.29	3.54	2.89	1.59
1.70V	100	68.6	52.5	32.4	19.1	13.8	10.9	7.95	5.24	3.52	2.88	1.58
1.75V	93.9	66.4	51.2	32.3	19.0	13.7	10.8	7.87	5.21	3.51	2.87	1.57
1.80V	88.5	64.1	50.0	31.8	18.8	13.5	10.7	7.85	5.16	3.48	2.85	1.56
1.85V	82.7	61.1	48.3	30.5	18.3	13.3	10.6	7.74	5.10	3.44	2.81	1.54

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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# GP series GP 672



## 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 5 Years in Standby Service at 25°C  
Eurobat (20°C) : 3-5 YEARS STANDARD COMMERCIAL

#### 【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】

6.75 ~ 6.90 VDC/Unit at 25°C (77°F)

#### 【Equalization Charging Voltage】

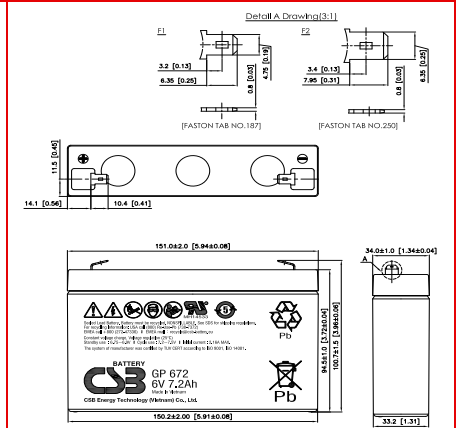
7.2 ~ 7.5 VDC/Unit at 25°C (77°F)

#### 【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	6V (3 cells per unit)		
Nominal Capacity	7.2 Ah @20hr-rate to 1.75V per cell @25°C (77°F)		
Weight	Approx. 1.22 Kg (2.68 lbs)		
Maximum Discharge Current	100/130A (5sec)		
Internal Resistance	Approx. 12.3mΩ		
Short Circuit Current	259A		
Maximum Charge Current	2.16A		
Terminal types	F1/F2 terminal -Faston Tab 187/250		
Terminal tightening torque	--		
Container Material	ABS (UL 94-HB) & Flame Retardant (94-V0) available upon request		
Dimensions	Length (L)	151.0±2.0 mm	5.94±0.08 inch
	Width (W)	34.0±1.0 mm	1.34±0.04 inch
	Container Height (h)	94.5±1.0 mm	3.72±0.04 inch
	Overall Height (H)	100.7±1.5 mm	3.96±0.06 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	35.6	22.0	16.5	9.6	5.51	3.92	3.08	2.13	1.34	0.92	0.77	0.45
1.67V	33.1	21.0	15.9	9.4	5.41	3.85	3.02	2.08	1.31	0.90	0.76	0.44
1.70V	31.9	20.5	15.6	9.2	5.37	3.82	3.00	2.06	1.30	0.89	0.75	0.43
1.75V	29.6	19.6	15.1	9.0	5.30	3.77	2.96	2.02	1.27	0.88	0.74	0.42
1.80V	27.2	18.6	14.4	8.8	5.23	3.71	2.91	1.98	1.25	0.87	0.73	0.41
1.85V	24.5	17.4	13.7	8.4	5.14	3.66	2.87	1.95	1.22	0.86	0.71	0.40

### 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	180	123	91.4	53.9	32.2	23.5	18.8	13.3	8.62	5.87	4.90	2.68
1.67V	170	118	88.7	52.9	31.8	23.2	18.5	13.2	8.50	5.80	4.84	2.63
1.70V	165	115	87.2	52.4	31.6	23.1	18.4	13.1	8.45	5.76	4.77	2.61
1.75V	157	111	85.0	51.6	31.2	22.8	18.2	13.0	8.36	5.70	4.73	2.57
1.80V	147	106	82.3	50.6	30.9	22.5	18.0	12.8	8.27	5.65	4.70	2.53
1.85V	138	101	79.2	49.5	30.4	22.1	17.7	12.6	8.16	5.60	4.64	2.49

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# GP series GP 1245



## 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 5 Years in Standby Service at 25°C  
Eurobat (20°C) : 3-5 YEARS STANDARD COMMERCIAL

#### 【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】

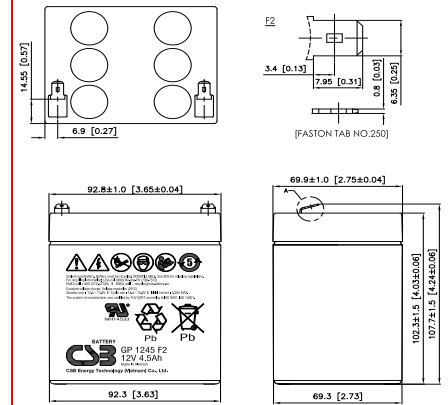
14.4 ~ 15.0 VDC/Unit at 25°C (77°F)

#### 【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	4.5Ah @20hr-rate to 1.75V per cell @25°C (77°F)		
Weight	Approx. 1.66 Kg (3.66 lbs)		
Maximum Discharge Current	60/90A (5sec)		
Internal Resistance	Approx. 37.7mΩ		
Short Circuit Current	160A		
Maximum Charge Current	1.35A		
Terminal types	F1/F2 terminal -Faston Tab 187/250		
Terminal tightening torque	--		
Container Material	ABS (UL 94-HB) & Flame Retardant (94-V0) available upon request		
Dimensions	Length (L)	92.8±1.0 mm	3.65±0.04 inch
	Width (W)	69.9±1.0 mm	2.75±0.04 inch
	Container Height (h)	102.3±1.5 mm	4.03±0.06 inch
	Overall Height (H)	107.7±1.5 mm	4.24±0.06 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	18.7	12.3	9.08	5.37	3.11	2.26	1.80	1.26	0.810	0.535	0.439	0.234
1.67V	17.6	11.8	8.88	5.31	3.09	2.25	1.79	1.24	0.808	0.533	0.438	0.233
1.70V	17.0	11.6	8.79	5.28	3.08	2.23	1.78	1.24	0.807	0.532	0.437	0.232
1.75V	16.1	11.2	8.62	5.21	3.06	2.22	1.77	1.23	0.804	0.531	0.435	0.229
1.80V	15.0	10.7	8.42	5.13	3.03	2.21	1.76	1.22	0.801	0.529	0.431	0.225
1.85V	13.8	10.3	8.21	5.04	3.00	2.18	1.74	1.21	0.798	0.528	0.428	0.221

### 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	221	145	110	65.9	38.6	27.9	22.2	16.1	10.7	7.09	5.79	3.19
1.67V	206	139	107	65.4	38.4	27.7	22.0	16.0	10.6	7.08	5.78	3.17
1.70V	199	137	105	64.9	38.1	27.6	21.9	15.9	10.5	7.04	5.76	3.16
1.75V	188	133	102	64.7	38.0	27.5	21.8	15.8	10.4	7.02	5.74	3.16
1.80V	177	128	100	63.6	37.7	27.2	21.5	15.7	10.3	6.96	5.71	3.13
1.85V	165	122	96.6	60.9	36.7	26.7	21.3	15.5	10.2	6.89	5.63	3.09

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# GP series GP 1272



## 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 5 Years in Standby Service at 25°C  
Eurobat (20°C) : 3-5 YEARS STANDARD COMMERCIAL

#### 【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】

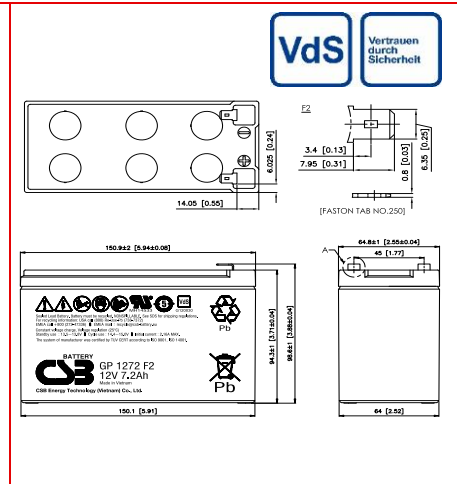
14.4 ~ 15.0 VDC/Unit at 25°C (77°F)

#### 【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	7.2Ah @20hr-rate to 1.75V per cell @25°C (77°F)		
Weight	Approx. 2.40 Kg (5.29 lbs)		
Maximum Discharge Current	100/130A (5sec)		
Internal Resistance	Approx. 23.0mΩ		
Short Circuit Current	276A		
Maximum Charge Current	2.16A		
Terminal types	F1/F2 terminal -Faston Tab 187/250		
Terminal tightening torque	--		
Container Material	ABS (UL 94-HB) & Flame Retardant (94-V0) available upon request		
Dimensions	Length (L)	150.9±2.0 mm	5.94±0.08 inch
	Width (W)	64.8±1.0 mm	2.55±0.04 inch
	Container Height (h)	94.3±1.0 mm	3.71±0.04 inch
	Overall Height (H)	98.6±1.0 mm	3.88±0.04 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	34.3	21.1	15.4	8.89	5.15	3.74	2.97	2.15	1.42	0.940	0.774	0.416
1.67V	32.8	20.8	15.3	8.87	5.14	3.73	2.96	2.14	1.41	0.937	0.771	0.415
1.70V	31.9	20.5	15.1	8.83	5.13	3.72	2.95	2.13	1.40	0.936	0.770	0.414
1.75V	30.0	19.8	14.8	8.72	5.09	3.71	2.94	2.12	1.39	0.932	0.767	0.412
1.80V	27.6	18.6	14.2	8.49	4.99	3.66	2.91	2.10	1.38	0.921	0.758	0.407
1.85V	24.4	16.9	13.1	8.06	4.80	3.54	2.81	2.04	1.33	0.892	0.734	0.393

### 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	362	233	174	104	60.4	44.1	35.1	25.4	17.1	11.5	9.45	5.04
1.67V	352	230	172	103	60.2	44.0	35.0	25.3	17.0	11.4	9.43	5.03
1.70V	345	227	171	102	60.1	43.9	34.9	25.2	16.9	11.3	9.42	5.02
1.75V	329	219	168	101	59.8	43.8	34.8	25.1	16.8	11.2	9.39	5.01
1.80V	304	207	162	100	58.9	43.3	34.5	25.0	16.7	11.1	9.31	4.95
1.85V	273	192	151	95.5	56.9	42.0	33.5	24.4	16.3	11.0	9.06	4.80

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Absorbent Glass Mat (AGM) technology for efficient gas recombination of up to 99%.

### General Design for Standby Power Applications

#### 【Design Life】

Up to 5 Years in Standby Service at 25°C  
Eurobat (20°C) : 3-5 YEARS STANDARD COMMERCIAL

#### 【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】

6.75 ~ 6.90 VDC/Unit at 25°C (77°F)

#### 【Equalization Charging Voltage】

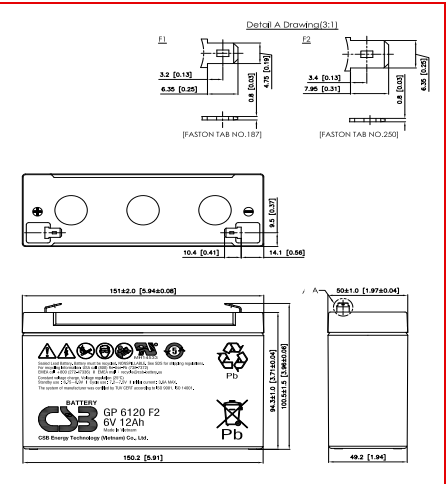
7.2 ~ 7.5 VDC/Unit at 25°C (77°F)

#### 【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	6V (3 cells per unit)	
Nominal Capacity	12 Ah @20hr-rate to 1.75V per cell @25°C (77°F)	
Weight	Approx. 1.85 Kg (4.08 lbs)	
Maximum Discharge Current	150/180A (5sec)	
Internal Resistance	Approx. 8.9mΩ	
Short Circuit Current	427A	
Maximum Charge Current	3.60A	
Terminal types	F1/F2 terminal -Faston Tab 187/250	
Terminal tightening torque	--	
Container Material	ABS (UL 94-HB) & Flame Retardant (94-V0) available upon request	
Dimensions	Length (L)	151.0±2.0 mm      5.94±0.08 inch
	Width (W)	50.0±1.0 mm      1.97±0.04 inch
	Container Height (h)	94.3±1.0 mm      3.71±0.04 inch
	Overall Height (H)	100.5±1.5 mm      3.96±0.06 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	51.2	33.2	23.9	13.9	8.14	5.90	4.69	3.37	2.24	1.45	1.19	0.640
1.67V	48.2	32.0	23.6	13.7	8.12	5.84	4.62	3.35	2.21	1.44	1.18	0.623
1.70V	46.3	31.6	23.3	13.6	8.08	5.82	4.61	3.32	2.18	1.43	1.17	0.610
1.75V	43.3	30.0	22.6	13.4	8.03	5.77	4.57	3.26	2.13	1.40	1.15	0.600
1.80V	38.8	28.0	21.5	13.0	7.81	5.64	4.48	3.17	2.06	1.37	1.14	0.584
1.85V	34.2	25.3	19.8	12.3	7.51	5.41	4.29	3.03	1.97	1.32	1.09	0.568

### 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	269	173	134	79.8	48.9	35.3	28.0	19.8	12.7	8.36	6.91	3.85
1.67V	257	171	132	79.6	48.8	35.1	27.8	19.7	12.6	8.30	6.85	3.81
1.70V	250	168	131	78.8	48.5	35.0	27.7	19.5	12.5	8.25	6.80	3.80
1.75V	231	163	128	78.1	48.1	34.6	27.5	19.3	12.2	8.12	6.69	3.77
1.80V	209	153	121	76.3	47.4	34.0	26.8	18.9	12.0	7.91	6.52	3.71
1.85V	185	140	111	72.2	45.8	33.1	26.3	18.1	11.7	7.73	6.36	3.61

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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# GP series GP 12120



## 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 5 Years in Standby Service at 25°C  
Eurobat (20°C) : 3-5 YEARS STANDARD COMMERCIAL

#### 【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】

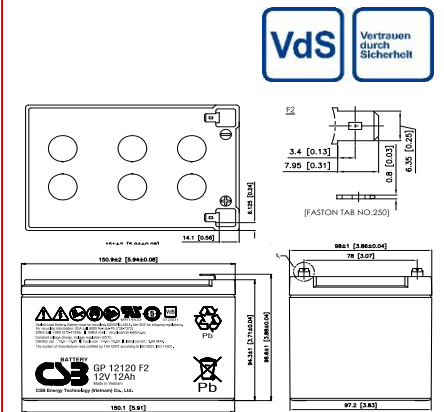
14.4 ~ 15.0 VDC/Unit at 25°C (77°F)

#### 【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	12 Ah @20hr-rate to 1.75V per cell @25°C (77°F)		
Weight	Approx. 3.67 Kg (8.09 lbs)		
Maximum Discharge Current	150/180A (5sec)		
Internal Resistance	Approx. 16.7mΩ		
Short Circuit Current	378A		
Maximum Charge Current	3.60A		
Terminal types	F1/F2 terminal -Faston Tab 187/250		
Terminal tightening torque	--		
Container Material	ABS (UL 94-HB) & Flame Retardant (94-V0) available upon request		
Dimensions	Length (L)	151.0±2.0 mm	5.94±0.08 inch
	Width (W)	98.0±1.0 mm	3.86±0.04 inch
	Container Height (h)	94.1±1.0 mm	3.70±0.04 inch
	Overall Height (H)	100.3±1.5 mm	3.95±0.06 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	51.2	33.2	23.9	13.9	8.14	5.90	4.69	3.37	2.24	1.45	1.19	0.63
1.67V	48.2	32.0	23.6	13.7	8.12	5.84	4.62	3.35	2.21	1.44	1.18	0.62
1.70V	46.3	31.6	23.3	13.6	8.08	5.82	4.61	3.32	2.18	1.43	1.17	0.61
1.75V	43.3	30.0	22.6	13.4	8.03	5.77	4.57	3.26	2.13	1.40	1.15	0.60
1.80V	38.8	28.0	21.5	13.0	7.81	5.64	4.48	3.17	2.06	1.37	1.14	0.59
1.85V	34.2	25.3	19.8	12.3	7.51	5.41	4.29	3.03	1.97	1.32	1.09	0.57

### 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	539	347	268	160	97.9	70.6	55.9	39.6	25.3	16.7	13.8	7.70
1.67V	515	342	265	159	97.7	70.2	55.6	39.3	25.2	16.6	13.7	7.63
1.70V	499	336	262	158	97.0	69.9	55.4	39.0	25.0	16.5	13.6	7.61
1.75V	462	326	256	156	96.1	69.3	54.9	38.5	24.4	16.2	13.4	7.54
1.80V	418	307	243	153	94.8	68.0	53.7	37.7	24.1	15.8	13.1	7.42
1.85V	369	280	221	144.0	91.6	66.2	52.6	36.3	23.3	15.5	12.7	7.23

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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# GP series GP 12170



## Valve Regulated Lead Acid Battery

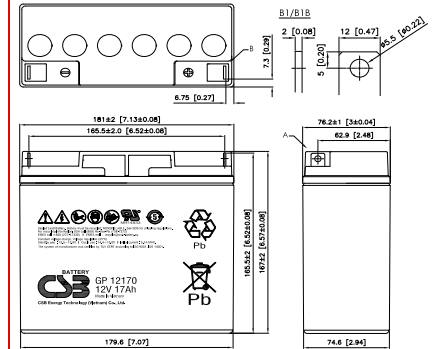
Maintenance-Free Sealed Lead Acid Battery.  
Absorbent Glass Mat (AGM) technology for efficient gas recombination of up to 99%.

### General Design for Standby Power Applications

<b>【Design Life】</b> Up to 5 Years in Standby Service at 25°C Eurobat (20°C) : 3-5 YEARS STANDARD COMMERCIAL <b>【Operating Temperature Range】</b> 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)	<b>【Float Charging Voltage】</b> 13.5 ~ 13.8 VDC/Unit at 25°C (77°F) <b>【Equalization Charging Voltage】</b> 14.4 ~ 15.0 VDC/Unit at 25°C (77°F) <b>【Self Discharge】</b> 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).
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### Specification Design according with IEC 61056-1/2:2012

Nominal Voltage	12V (6 cells per unit)	
Nominal Capacity	17 Ah @20hr-rate to 1.75V per cell @25°C (77°F)	
Weight	Approx. 5.50 Kg (12.12 lbs)	
Maximum Discharge Current	230A (5sec)	
Internal Resistance	Approx. 14.0mΩ	
Short Circuit Current	532A	
Maximum Charge Current	5.10A	
Terminal types	B1/B3/B1B terminal to accept M5 bolt	
Terminal tightening torque	30.4±6.1 Kgf·cm / 26.4±5.3 Lbf·in / 3.0±0.6 N·m	
Container Material	ABS (UL 94-HB) & Flame Retardant (94-V0) available upon request	
Dimensions	Length (L)	181.0±2.0 mm      7.13±0.08 inch
	Width (W)	76.2±1.0 mm      3.00±0.04 inch
	Container Height (h)	167.0±2.0 mm      6.57±0.08 inch
	Overall Height (H)	167.0±2.0 mm      6.57±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	80.2	50.9	38.5	23.4	13.8	10.1	8.03	5.72	3.63	2.37	1.93	1.00
1.67V	71.2	47.5	36.5	22.9	13.7	10.0	7.99	5.69	3.61	2.35	1.90	0.95
1.70V	67.4	45.8	35.6	22.7	13.6	9.99	7.97	5.67	3.60	2.34	1.89	0.94
1.75V	61.0	43.1	34.1	22.3	13.4	9.86	7.92	5.64	3.59	2.32	1.86	0.91
1.80V	54.5	40.2	32.7	21.8	13.3	9.79	7.87	5.61	3.58	2.30	1.83	0.88
1.85V	48.0	37.3	31.0	21.2	13.1	9.68	7.80	5.56	3.56	2.27	1.80	0.85

### 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	890	583	449	281	166	121	96.4	68.6	43.6	28.4	23.1	12.0
1.67V	790	544	423	275	164	120	96.0	68.5	43.4	28.3	22.8	11.5
1.70V	748	527	413	272	163	119	95.8	68.4	43.3	28.2	22.7	11.3
1.75V	677	493	395	267	161	119	95.3	67.9	43.2	27.9	22.4	10.9
1.80V	605	460	377	261	160	118	94.6	67.3	43.0	27.6	22.0	10.5
1.85V	533	427	361	254	158	116	93.8	66.8	42.9	27.3	21.7	10.1

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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# GP series GP 12260



## 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 5 Years in Standby Service at 25°C  
Eurobat (20°C) : 3-5 YEARS STANDARD COMMERCIAL

#### 【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】

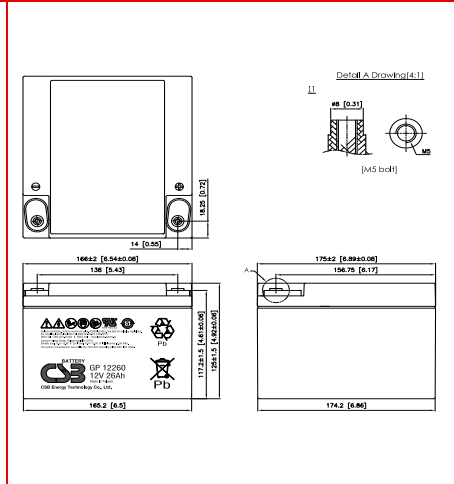
14.4 ~ 15.0 VDC/Unit at 25°C (77°F)

#### 【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	26 Ah @20hr-rate to 1.75V per cell @25°C (77°F)		
Weight	Approx. 8.45 Kg (18.62 lbs)		
Maximum Discharge Current	350A (5sec)		
Internal Resistance	Approx. 9.9mΩ		
Short Circuit Current	635A		
Maximum Charge Current	7.8A		
Terminal types	I1 thread lead alloy terminal to accept M5 bolt		
Terminal tightening torque	30.4±6.1 Kg·cm / 26.4±5.3 Lbf·in / 3.0±0.6 N·m		
Container Material	ABS (UL 94-HB) & Flame Retardant (94-V0) available upon request		
Dimensions	Length (L)	166.0±2.0 mm	6.54±0.08 inch
	Width (W)	175.0±2.0 mm	6.89±0.08 inch
	Container Height (h)	125.0±1.5 mm	4.92±0.06 inch
	Overall Height (H)	125.0±1.5 mm	4.92±0.06 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	106	69.0	52.8	32.7	19.6	14.3	11.5	8.14	5.24	3.46	2.82	1.47
1.67V	99.0	65.9	51.1	32.3	19.5	14.2	11.4	8.13	5.23	3.43	2.79	1.42
1.70V	95.7	64.6	50.4	32.2	19.4	14.1	11.3	8.12	5.22	3.42	2.78	1.41
1.75V	89.7	62.0	49.0	31.6	19.3	14.0	11.2	8.11	5.21	3.38	2.74	1.37
1.80V	83.3	59.4	47.5	31.1	19.2	13.9	11.1	8.10	5.19	3.35	2.70	1.33
1.85V	76.7	56.5	45.8	30.5	19.1	13.8	11.0	8.09	5.17	3.31	2.66	1.29

### 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	1270	828	634	392	235	172	138	97.7	62.9	41.5	33.8	17.6
1.67V	1181	790	610	385	234	171	137	97.6	62.8	41.2	33.5	17.1
1.70V	1139	772	602	382	233	170	136	97.5	62.7	41.0	33.3	16.9
1.75V	1071	744	586	378	232	169	135	97.4	62.6	40.6	32.9	16.5
1.80V	999	713	570	373	231	168	134	97.3	62.3	40.2	32.4	16.0
1.85V	920	678	550	367.0	230	167	133	97.2	62.1	39.8	32.0	15.6

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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# GP series GP 12340



## Valve Regulated Lead Acid Battery

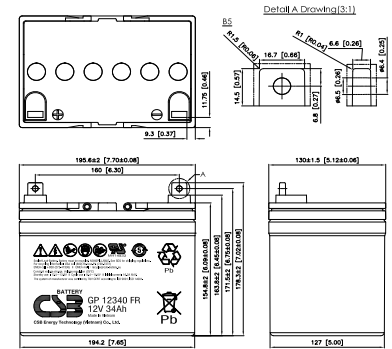
Maintenance-Free Sealed Lead Acid Battery.  
Absorbent Glass Mat (AGM) technology for efficient gas recombination of up to 99%.

### General Design for Standby Power Applications

<b>【Design Life】</b> Up to 5 Years in Standby Service at 25°C Eurobat (20°C) : 3-5 YEARS STANDARD COMMERCIAL <b>【Operating Temperature Range】</b> 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)	<b>【Float Charging Voltage】</b> 13.5 ~ 13.8 VDC/Unit at 25°C (77°F) <b>【Equalization Charging Voltage】</b> 14.4 ~ 15.0 VDC/Unit at 25°C (77°F) <b>【Self Discharge】</b> 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).
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### Specification Design according with IEC 61056-1/2:2012

Nominal Voltage	12V (6 cells per unit)	
Nominal Capacity	34 Ah @20hr-rate to 1.75V per cell @25°C (77°F)	
Weight	Approx. 10.48 Kg (23.10 lbs)	
Maximum Discharge Current	380A (5sec)	
Internal Resistance	Approx. 9.5mΩ	
Short Circuit Current	915A	
Maximum Charge Current	10.20A	
Terminal types	B5 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)	195.6±2.0 mm      7.70±0.08 inch
	Width (W)	130.0±1.5 mm      5.12±0.08 inch
	Container Height (h)	154.8±2.0 mm      6.09±0.08 inch
	Overall Height (H)	178.3±2.0 mm      7.02±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	148	101	75.0	43.2	24.9	18.0	14.3	10.3	6.66	4.40	3.60	1.91
1.67V	134	95.5	72.8	42.6	24.7	17.9	14.2	10.2	6.62	4.37	3.58	1.90
1.70V	127	91.9	71.4	42.2	24.5	17.8	14.1	10.1	6.60	4.36	3.57	1.89
1.75V	112	84.2	67.9	41.1	24.1	17.6	14.0	10.0	6.54	4.33	3.55	1.88
1.80V	99.9	75.6	62.4	39.3	23.4	17.1	13.7	9.91	6.43	4.26	3.49	1.86
1.85V	84.3	68.4	55.5	36.8	22.1	16.3	13.1	9.52	6.18	4.10	3.36	1.79

### 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	1458	1057	822	517	302	217	172	123	79.4	52.6	43.1	23.0
1.67V	1339	1014	804	511	299	216	171	122	79.1	52.4	43.0	22.9
1.70V	1284	986	792	506	297	215	170	121	79.0	52.3	42.8	22.8
1.75V	1198	925	757	494	293	213	169	120	78.4	52.0	42.6	22.7
1.80V	1088	852	702	475	285	209	167	119	77.4	51.3	42.1	22.5
1.85V	950	786	639	448	268	199	161	115	74.8	49.7	40.8	21.8

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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# GP series GP 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 5 Years in Standby Service at 25°C  
Eurobat (20°C) : 3-5 YEARS STANDARD COMMERCIAL

#### 【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】

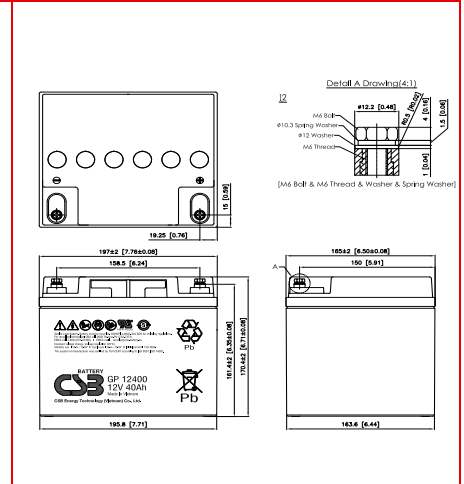
14.4 ~ 15.0 VDC/Unit at 25°C (77°F)

#### 【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	1012A		
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	172	118	87.8	51.7	30.4	22.3	17.7	12.8	8.31	5.53	4.54	2.43
1.67V	157	112	85.7	51.1	30.2	22.2	17.6	12.7	8.27	5.50	4.52	2.42
1.70V	149	109	84.2	50.7	30.0	22.1	17.5	12.6	8.24	5.49	4.51	2.41
1.75V	134	101	80.7	49.5	29.6	21.9	17.4	12.5	8.19	5.45	4.48	2.40
1.80V	121	91.4	75.1	47.3	28.7	21.5	17.1	12.4	8.07	5.37	4.41	2.36
1.85V	103	81.4	66.2	43.8	27.2	20.6	16.4	11.9	7.79	5.19	4.26	2.28

### 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	1703	1231	955	581	347	257	204	148	98.0	65.4	53.9	29.1
1.67V	1596	1185	939	576	345	256	203	147	97.5	65.2	53.7	29.0
1.70V	1542	1155	925	572	344	255	202	146	97.3	65.1	53.6	28.9
1.75V	1450	1092	886	561	340	254	201	145	96.9	64.8	53.4	28.8
1.80V	1332	1013	826	540	332	250	199	144	95.9	64.1	52.8	28.5
1.85V	1123	926	741	506.8	317	241	192	140	93.3	62.3	51.3	27.6

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