



# TPL series TPL121000TFR



## 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 12 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】

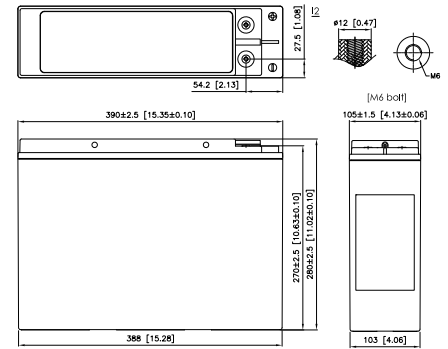
14.4 ~ 15.0 VDC/Unit at 25°C (77°F)

#### 【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	100AH @10HR-rate to 1.80V per cell @25°C (77°F)		
Weight	Approx. 34.80 Kg (76.70 lbs)		
Maximum Discharge Current	800A (5sec)		
Internal Resistance	Approx. 4.00 mΩ		
Short Circuit Current	2132A		
Maximum Charge Current	30A		
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 / 5.1±1.0 N·m		
Container Material	Flame Retardant ABS (UL 94-V0)		
Dimensions	Length (L)	390.0±2.5 mm	15.35±0.10 inch
	Width (W)	105.0±1.5 mm	4.13±0.06 inch
	Overall Height (H)	280.0±2.5 mm	11.02±0.10 inch



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

F.V/Time	15MIN	30MIN	60MIN	90MIN	2HR	3HR	4HR	5HR	6HR	8HR	10HR	20HR
1.67V	203	123	72.6	52.9	41.9	29.8	23.4	19.4	16.6	12.9	10.7	5.55
1.70V	198	122	72.2	52.7	41.5	29.7	23.3	19.3	16.5	12.8	10.6	5.51
1.75V	184	117	71.1	52.0	41.2	29.4	23.1	19.2	16.4	12.7	10.5	5.47
1.80V	164	111	68.7	50.8	40.2	28.7	22.6	18.8	16.0	12.5	10.4	5.37
1.83V	148	105	65.9	49.2	38.9	27.9	22.0	18.3	15.7	12.3	10.1	5.24
1.85V	138	101	64.0	48.1	38.1	27.3	21.6	18.0	15.4	12.1	9.91	5.15

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

F.V/Time	15MIN	30MIN	60MIN	90MIN	2HR	3HR	4HR	5HR	6HR	8HR	10HR	20HR
1.67V	2117	1370	843	619	488	344	270	223	192	152	127	66.6
1.70V	2069	1361	837	615	487	342	268	222	190	149	124	65.6
1.75V	1944	1327	828	611	482	341	265	221	189	148	123	65.3
1.80V	1753	1261	798	598	472	334	262	217	187	147	122	65.0
1.83V	1611	1211	768	581	457	326	256	213	183	145	121	63.6
1.85V	1516	1177	748	569	447	320	252	210	181	144	120	62.6

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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### Sales Offices

希世比能源科技股份有限公司  
CSB Energy Technology Co., Ltd.

#### BUSINESS HEADQUARTERS

Tel: +886-2-2880-5600  
Fax: +886-2-2888-3300

#### USA OFFICE

Tel: +1-817-244-7777 / 1-(800)3-CSB-USA (272872)  
Fax: +1-817-244-4445

#### SHENZHEN OFFICE (CHINA)

Tel: +86-755-8831-6488/6775/6075  
Fax: +86-755-8831-6548

#### EUROPE (EMEA) OFFICE

Tel: +31(0)180-418-140  
Fax: +31(0)180-418-327

#### SHANGHAI OFFICE (CHINA)

Tel: +86-21-5046-1622/0833/0094  
Fax: +86-21-5046-1046

Recognized under UL 1989,  
and certified by ISO 9001, 14001, 45001, 50001.



#### TAIPEI OFFICE

Tel: +886-2-2880-5600  
Fax: +866-2-2888-3300

#### BEIJING OFFICE (CHINA)

Tel: +86-10-6597-8065/8165/8265  
Fax: +86-10-6597-8565