



# TPL series TPL121800FR



## Valve Regulated Lead Acid Battery

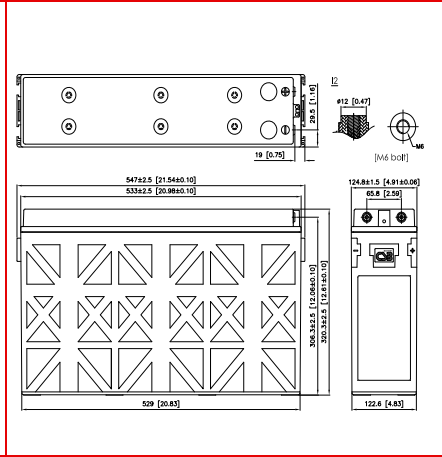
Maintenance-Free Sealed Lead Acid Battery.  
Absorbent Glass Mat (AGM) technology for efficient gas recombination of up to 99%.

### General Design for Standby Power Applications

<b>【Design Life】</b> Up to 12 Years in Standby Service at 25°C Eurobat (20°C) : >12 YEARS VERY LONG LIFE <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 60896-21/22:2004

Nominal Voltage	12V (6 cells per unit)		
Nominal Capacity	180AH @10HR-rate to 1.80V per cell @25°C (77°F)		
Weight	Approx. 55.10 Kg (121.44 lbs)		
Maximum Discharge Current	800A (5sec)		
Internal Resistance	Approx. 3.90 mΩ		
Short Circuit Current	2575A		
Maximum Charge Current	54A		
Terminal types	I2 thread lead alloy terminal to accept M6 bolt		
Terminal tightening torque	51.7±10.3 Kg·cm / 44.9±9.0 Lbf·in / 5.1±1.0 N·m		
Container Material	Flame Retardant ABS (UL 94-V0)		
Dimensions	Length (L)	547.0±2.5 mm	21.54±0.10 inch
	Width (W)	124.8±1.5 mm	4.94±0.06 inch
	Overall Height (H)	320.3±2.5 mm	12.72±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	307	205	124	90.1	71.1	51.1	39.8	32.7	28.0	22.0	18.2	9.70
1.70V	292	201	123	89.2	70.7	50.9	39.6	32.6	27.9	21.9	18.1	9.67
1.75V	266	190	119	87.7	69.7	50.4	39.2	32.3	27.7	21.8	18.0	9.59
1.80V	238	177	114	84.6	67.6	49.2	38.4	31.7	27.2	21.4	18.0	9.44
1.83V	221	167	109	81.8	65.6	47.9	37.4	31.0	26.6	21.0	17.4	9.28
1.85V	205	158	105	79.2	63.9	46.7	36.6	30.4	26.1	20.6	17.0	9.11

### 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	3208	2217	1386	1023	816	589	466	387	333	261	217	116
1.70V	3096	2206	1382	1013	809	588	465	386	332	260	216	115
1.75V	2879	2106	1354	1004	803	583	462	383	330	259	215	114
1.80V	2624	1968	1302	975	782	569	454	377	324	255	211	113
1.83V	2455	1865	1253	946	765	561	445	370	318	250	208	111
1.85V	2341	1770	1209	920	747	550	436	363	313	247	205	110

Please refer to the official site for the latest rating confirmation. URL: [www.csb-battery.com](http://www.csb-battery.com) Issued: 230310

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



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