



TPL 121500

12V 150Ah

TPL121500 is a front terminal battery up to 12 years expected life under normal float charge. As with all CSB batteries, all are rechargeable, highly efficient, leak proof and maintenance free.



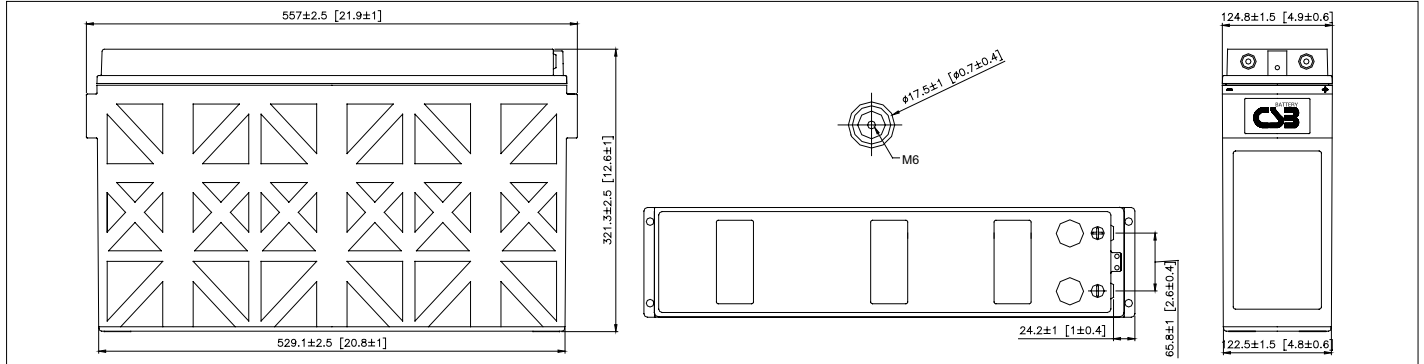
Specification

Nominal Voltage(V)	12
Capacity 25°C (77°F)	150Ah @ 8hr-rate to 1.75V per cell
Dimensions (mm)	Height : 321.3 mm(12.65 inch)
	Length : 557 mm(21.92 inch)
	Width : 124.8 mm(4.91 inch)
	Approx. 56 kg(123.46 lbs)
Weight	Approx. 4.1m Ω
Internal Resistance. Approx (m Ω)	PPE(UL 94-V0/File E161759)/L.O.I higher than 28 .
FlameRetardantContainer/	2.275 \pm 0.025V/cell Temperature coefficient -3.3mV/ $^{\circ}\text{C}$ (1.8mV/ $^{\circ}\text{F}$)
Cover UL - Laboratories Rating	800A
Float Charging 25°C (77°F)	45A
Maximum Discharge Current in 5 seconds	Discharge: -20 $^{\circ}\text{C}$ ~50 $^{\circ}\text{C}$ (-4 $^{\circ}\text{F}$ ~122 $^{\circ}\text{F}$)
Maximum Charge Current(C/5)	Charge: -20 $^{\circ}\text{C}$ ~50 $^{\circ}\text{C}$ (-4 $^{\circ}\text{F}$ ~122 $^{\circ}\text{F}$)
Service Temperature Range	Storage: -20 $^{\circ}\text{C}$ ~40 $^{\circ}\text{C}$ (-4 $^{\circ}\text{F}$ ~104 $^{\circ}\text{F}$)
Terminal Type	I2-Thread lead alloy recessed terminal to accept M6 bolt
Terminal Hardware Initial Torque	110-in-lbs.(12.4 N-m)



CSB-manufactured batteries are UL-recognized components under UL924 and UL1989. CSB is also certified by ISO 9001 and ISO 14001.

Dimensions



TPL121500

Constant Current Discharge Characteristics Unit: Amperes (25 $^{\circ}\text{C}$, 77 $^{\circ}\text{F}$)

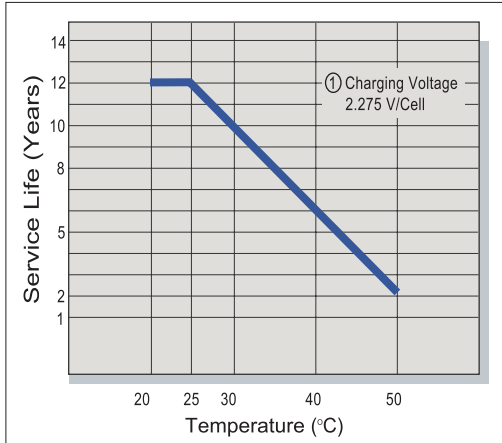
F.V/Time	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	6HR	7HR	8HR	10HR	20HR
1.67V	278	177	104	60.2	44.3	35.7	29.6	25.3	22.0	19.5	15.9	8.34
1.70V	263	170	100	59.5	43.9	35.3	29.3	24.9	21.8	19.1	15.8	8.25
1.75V	238	158	95.5	57.9	42.7	34.2	28.1	24.0	21.0	18.8	15.4	8.06
1.80V	211	146	90.2	55.6	41.3	32.6	27.2	23.4	20.3	18.1	15.0	7.88
1.83V	195	138	85.0	53.3	39.8	31.7	26.4	22.8	19.8	17.5	14.4	7.69
1.85V	184	133	82.9	52.1	38.9	31.0	25.8	22.2	19.4	17.3	14.3	7.50
1.90V	158	118	77.2	48.1	35.4	28.1	23.4	20.0	17.6	15.8	13.0	6.94

Constant Power Discharge Characteristics Unit: Watts (25 $^{\circ}\text{C}$, 77 $^{\circ}\text{F}$)

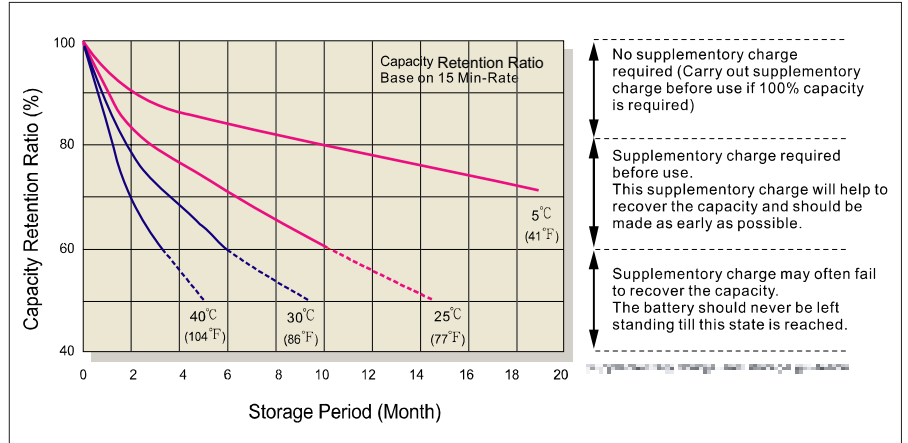
F.V/Time	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	6HR	7HR	8HR	10HR	20HR
1.67V	2,954	1,909	1,135	669	497	402	334	286	249	221	180	94.7
1.70V	2,821	1,855	1,122	667	496	400	333	284	248	218	179	94.4
1.75V	2,575	1,747	1,084	666	489	394	324	277	243	217	178	93.4
1.80V	2,322	1,627	1,033	646	480	380	318	274	238	212	175	92.5
1.83V	2,164	1,545	1,002	628	467	372	311	268	233	207	170	90.9
1.85V	2,057	1,495	977	618	459	367	305	263	230	204	169	89.2
1.90V	1,812	1,370	909	572	423	337	281	240	212	189	157	83.5

• All mentioned values are average values.

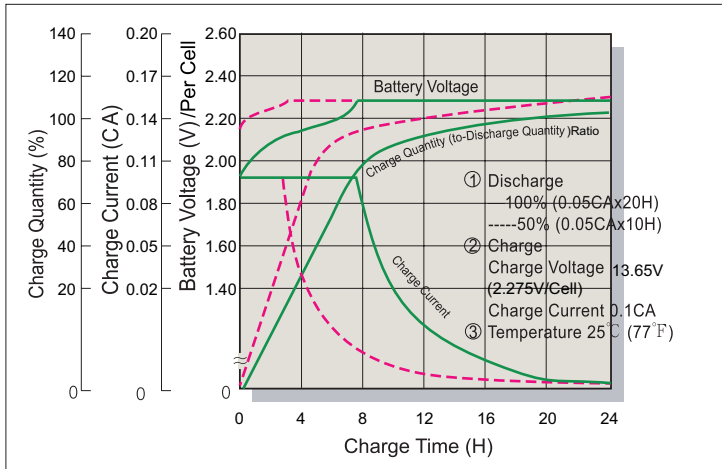
Trickle (or Float) Service Life



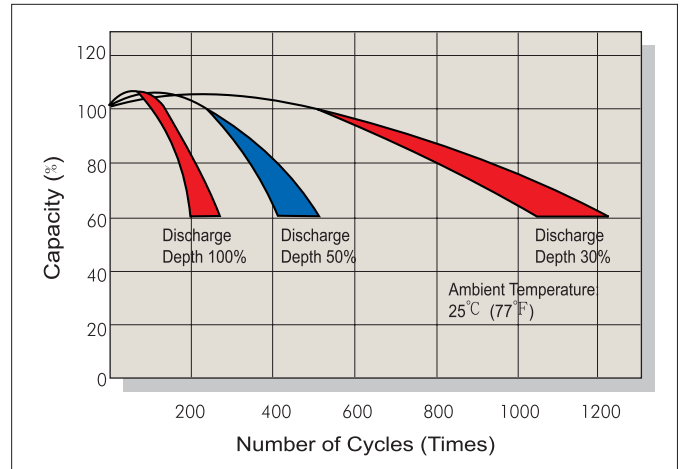
Capacity Retention Characteristic



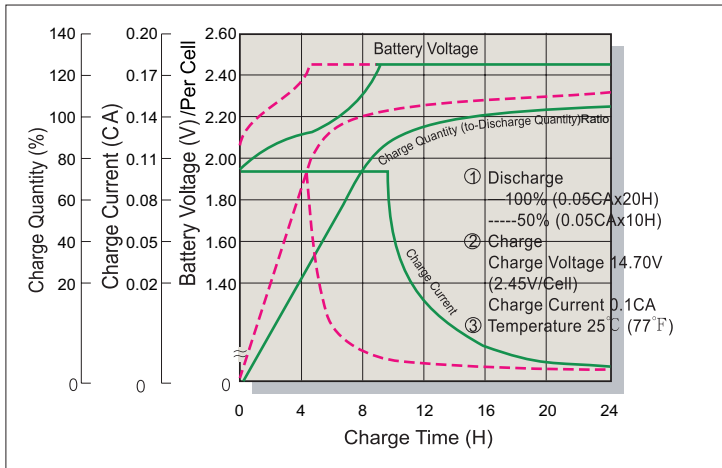
Battery Voltage and Charge Time for Standby Use



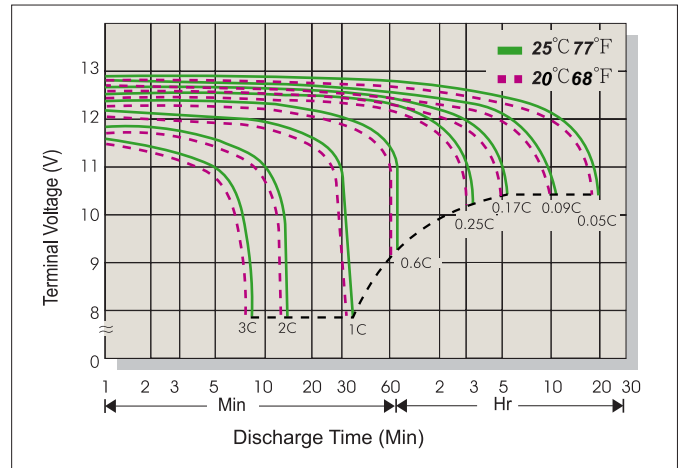
Cycle Service Life



Battery Voltage and Charge Time for Cycle Use



Terminal Voltage (V) and Discharge Time



Charging Procedures

Application	Charge Voltage(V/Cell)			Max. Charge Current
	Temperature	Set Point	Allowable Range	
Cycle Use	25°C (77°F)	2.45	2.40~2.50	0.3C
Standby	25°C (77°F)	2.275	2.25~2.30	

Discharge Current VS. Discharge Voltage

Final Discharge Voltage V/Cell	1.75	1.70	1.60	1.30
Discharge Current(A)	0.2C>(A)	0.2C<(A)<0.5C	0.5C<(A)<1.0C	(A)>1.0C

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