



# TPL 121350

## 12V 135.0Ah

TPL 121350 is a general purpose battery with 10 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	12
Capacity <sup>25°C(77°F)</sup>	135Ah @ 8hr-rate to 1.75V per cell
Dimensions	Height : 321.3mm(12.6inch)
	Length : 557mm(21.9inch)
	Width : 124.8mm(4.90inch)
Weight	Approx. 56kg(123.2 lbs)
Internal Resistance	Approx. 4.0mΩ
Flame Retardant Container / Cover UL - Laboratories Rating	UL94-V0(PP)/L.O.I higher than 28 .
Float Charging <sup>25°C(77°F)</sup>	2.275±0.025V Temperature coefficient -3.3mV/°C(1.8mV/°F)
Maximum Discharge Current in 5 seconds	800A
Maximum Charge Current(C/5)	40.5A
Service Temperature Range	Discharge: -20°C~50°C(-4°F~122°F)
	Charge: -20°C~50°C(-4°F~122°F)
	Storage: -20°C~40°C(-4°F~104°F)
Terminal Type	Thread copper alloy insert terminal to accept 1/4"-20bolt
Terminal Hardware Initial Torque	110-in-lbs.(12.4 N-m)

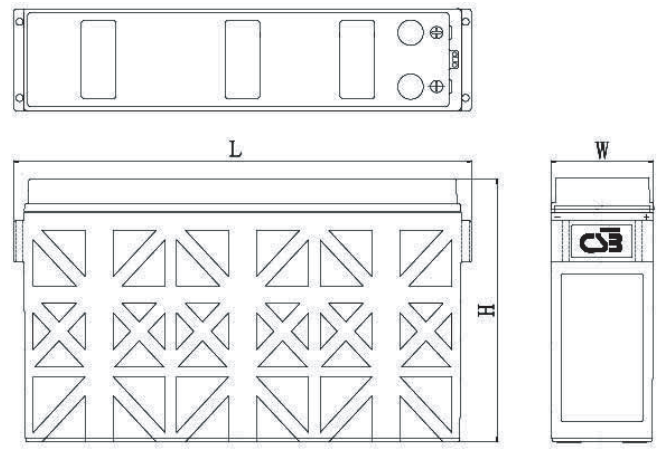
MH14533(N)

ISO 9001  
No.:041005117

ISO 14001  
NO. UM 1-12-0045

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

### Dimensions



### TPL121350

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

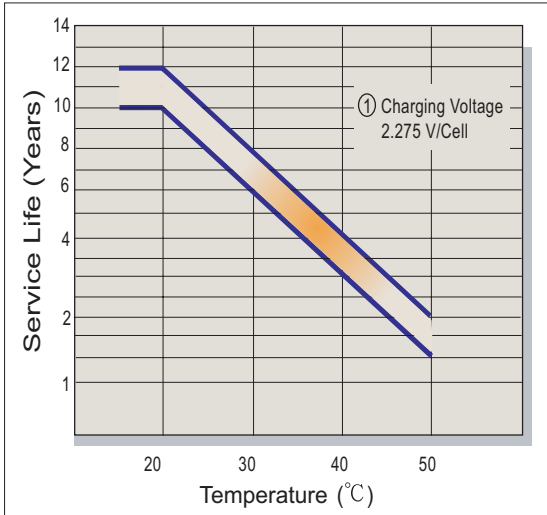
F.V/Time	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	6HR	7HR	8HR	10HR	20HR
1.67V	250.43	159.05	93.23	54.17	39.91	32.15	26.66	22.78	19.83	17.55	14.34	7.51
1.70V	240.13	155.93	92.39	53.58	39.49	31.73	26.33	22.44	19.58	17.21	14.18	7.43
1.75V	222.41	148.58	90.70	52.73	38.39	30.80	25.31	21.60	18.90	16.88	13.84	7.26
1.80V	200.22	139.56	86.91	51.30	37.21	29.36	24.47	21.09	18.31	16.28	13.42	7.09
1.83V	182.42	131.37	83.28	49.87	35.86	28.52	23.79	20.50	17.80	15.78	12.99	6.92
1.85V	171.53	126.06	80.41	48.68	35.02	27.93	23.20	20.00	17.47	15.53	12.83	6.75
1.90V	141.83	106.06	69.44	43.28	31.89	25.31	21.09	17.97	15.86	14.18	11.73	6.24

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

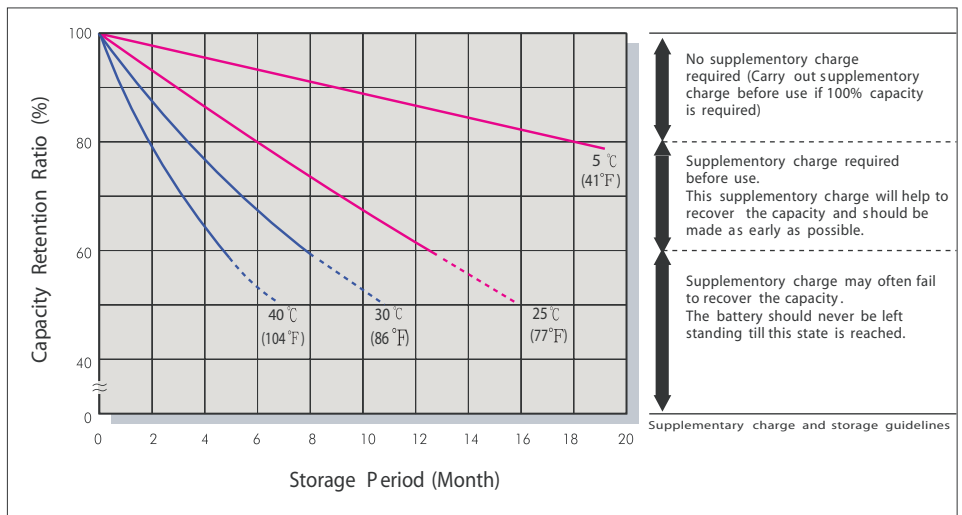
F.V/Time	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	6HR	7HR	8HR	10HR	20HR
1.67V	2,658.26	1,717.71	1,021.85	601.81	447.38	361.81	300.89	257.34	224.16	198.49	162.37	85.23
1.70V	2,569.40	1,699.58	1,020.92	600.61	446.41	360.08	299.45	255.52	223.06	196.22	161.74	84.94
1.75V	2,424.30	1,643.34	1,018.14	599.33	439.96	354.32	291.73	249.26	218.30	194.91	159.96	84.10
1.80V	2,224.47	1,566.52	990.73	592.52	432.19	342.37	285.80	246.59	214.22	190.61	157.10	83.21
1.83V	2,050.39	1,489.76	960.61	581.18	420.09	335.24	280.05	241.53	209.90	186.10	153.39	81.85
1.85V	1,944.34	1,440.82	932.75	570.82	412.66	330.11	274.61	236.86	206.97	184.05	152.17	80.26
1.90V	1,631.10	1,232.94	817.66	514.87	381.13	303.12	252.91	215.66	190.43	170.24	140.97	75.17

• All mentioned values are average values.

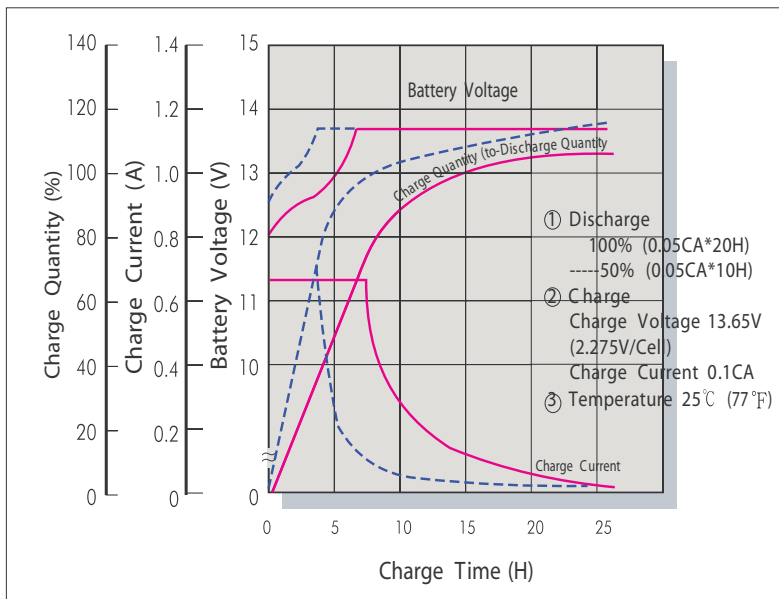
## Trickle (or Float) Service Life



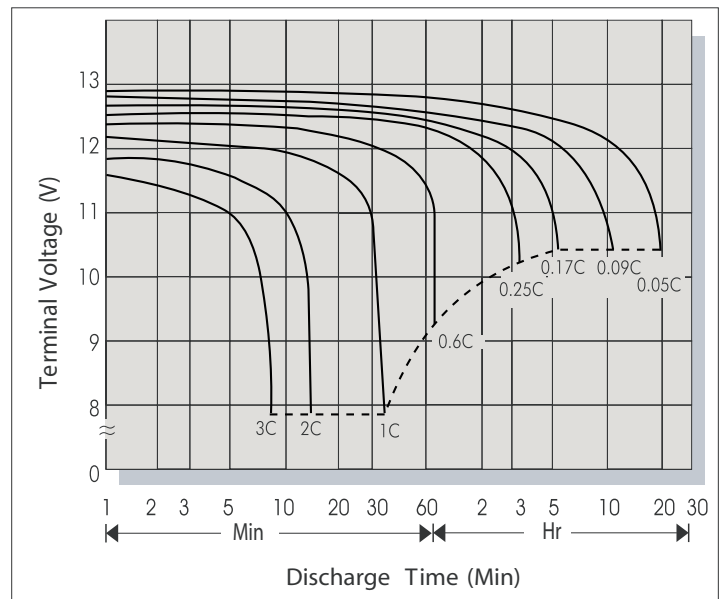
## Capacity Retention Characteristic



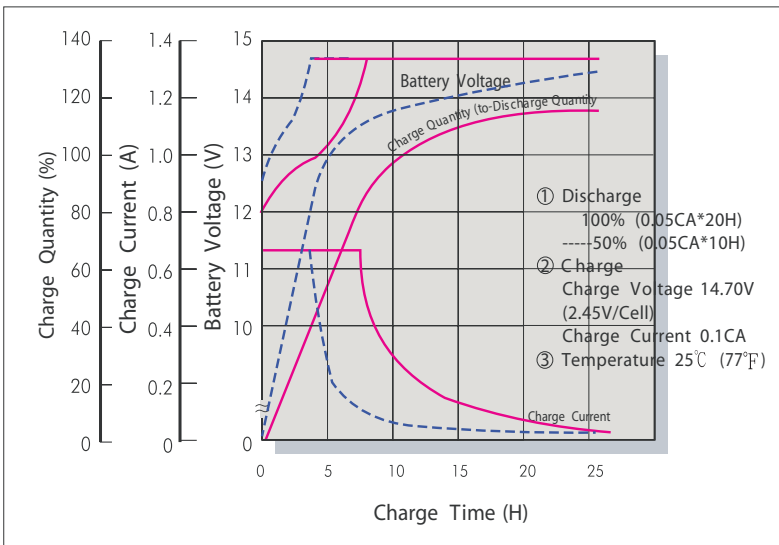
## Battery Voltage and Charge Time for Standby Use



## Terminal Voltage (V) and Discharge Time (25°C/77°F)



## Battery Voltage and Charge Time for Cycle Use



## Discharge Current VS. Discharge Voltage

Final Discharge Voltage V/Cell	1.75	1.70	1.55	1.30
Discharge Current (A)	0.2C >(A)	0.2C <(A)<0.5C	0.5C <(A)<1.0C	(A)>1.0C

## 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	0.3CA
Standby	25°C(77°F)	2.275	2.25~2.30	

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