



TPL 121000R

12V 100Ah

TPL121000R 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.



Specifications

Nominal Voltage	12V
Rated Capacity	100Ah (10 hour rate) to 1.80V/cell @25°C(77°F)
Typical Weight	33kg
Internal Resistance	Approx 6.31mΩ
Temperature Ranges	Operation (maximum): -40°C to 55°C(-40°F to 131°F) Operation (recommended): 15°C to 25°C(59°F to 77°F) Storage: -20°C to 40°C(-4°F to 104°F)
Float Voltage	2.25V/cell@25°C(77°F)
Recommended Maximum Charging Current Limit	25A
Equalize and Cycle Service	2.35V~2.40V@25°C(77°F)
Self Discharge	The residual capacity is above 87% after 90 days storage(25°C/77°F)
Terminal	M6 Female
Terminal Hardware Torque	10 ± 1.0Nm
Container Material	ABS (V0 optional)

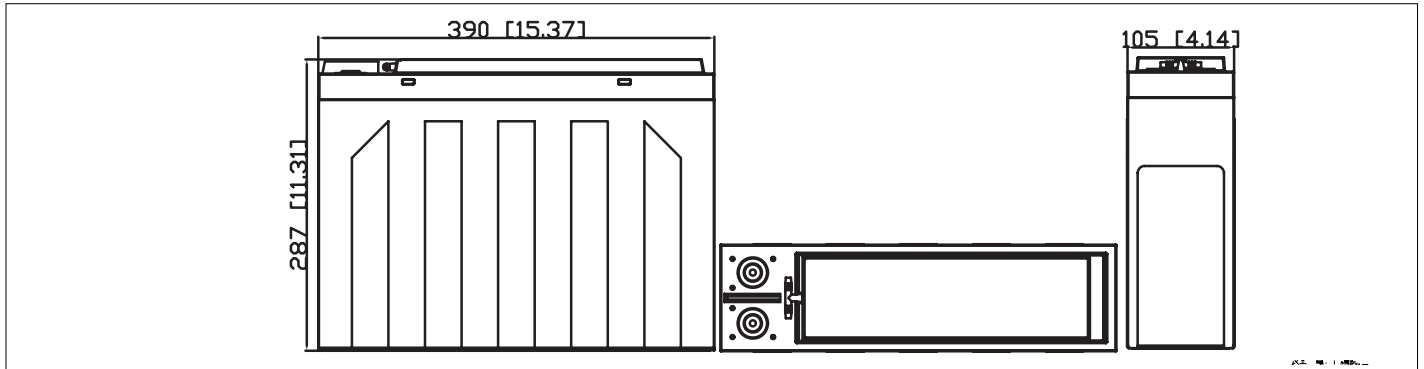
UL
MH14533(N)

TÜV CERT
ISO 9001
No. 041005117

RWTV
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 mm[inch]



TPL121000R

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

End voltage per cell	5MIN	15MIN	30MIN	45MIN	1HR	2HR	3HR	4HR	5HR	6HR	8HR	10HR	12HR	20HR	24HR
1.60V	361	194	118	85.3	68.9	39.5	28.7	22.5	19.0	16.3	12.5	10.3	8.68	5.44	4.54
1.67V	339	187	116	84.6	68.5	39.3	28.2	22.4	18.9	16.2	12.4	10.2	8.67	5.39	4.50
1.70V	336	184	114	84.0	68.0	39.0	28.0	22.3	18.6	16.0	12.4	10.2	8.58	5.38	4.50
1.75V	309	178	113	83.4	67.0	38.0	27.7	22.0	18.5	15.9	12.3	10.1	8.58	5.37	4.50
1.80V	277	166	108	80.0	65.3	37.7	27.5	21.9	18.1	15.6	12.2	10.0	8.51	5.31	4.49
1.83V	264	152	106	77.3	62.4	37.2	26.6	20.9	17.5	15.1	11.9	9.63	8.09	5.30	4.42
1.85V	247	148	98.6	74.3	60.5	35.8	25.9	20.7	17.1	14.7	11.5	9.55	8.00	5.20	4.38

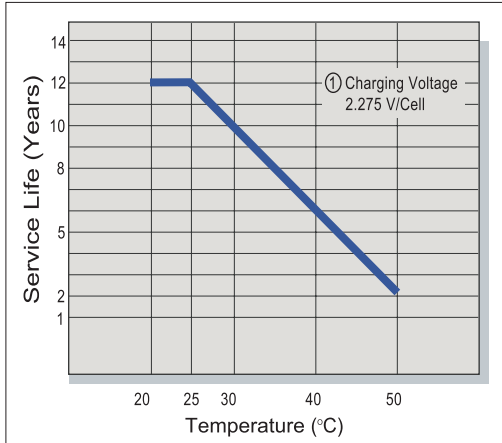
Constant Power Discharge Characteristics Unit: Watts(25 °C, 77 °F)

End voltage per cell	5MIN	15MIN	30MIN	45MIN	1HR	2HR	3HR	4HR	5HR	6HR	8HR	10HR	12HR	20HR	24HR
1.60V	604	341	213	160	130	74.6	54.5	43.2	36.4	31.4	24.3	20.0	16.8	10.8	9.02
1.67V	581	335	211	159	129	74.4	53.8	43.1	36.4	31.2	24.2	19.8	16.8	10.7	9.02
1.70V	578	331	211	159	129	74.1	53.8	42.9	35.9	31.0	24.0	19.6	16.7	10.7	9.00
1.75V	539	329	210	158	127	73.7	53.2	42.9	35.9	30.9	23.8	19.6	16.6	10.7	9.00
1.80V	495	311	205	155	126	73.5	53.1	42.8	35.3	30.6	23.7	19.6	16.6	10.7	8.98
1.83V	473	285	203	150	121	72.6	51.8	41.2	34.5	29.7	23.5	19.1	16.1	10.7	8.92
1.85V	442	278	188	144	117	70.2	50.4	40.7	33.7	29.1	22.8	18.9	15.9	10.5	8.85

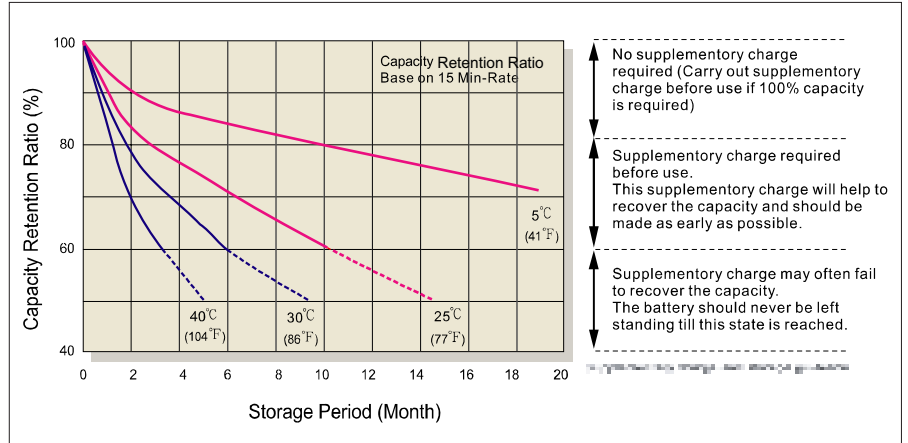
● All mentioned values are average values.

● Tolerance: X<6min(+15%~-15%), 6min ≤ X<10min(+12%~-12%), 10min ≤ X<60min(+8%~-8%), X ≥ 60min(+5%~-5%)

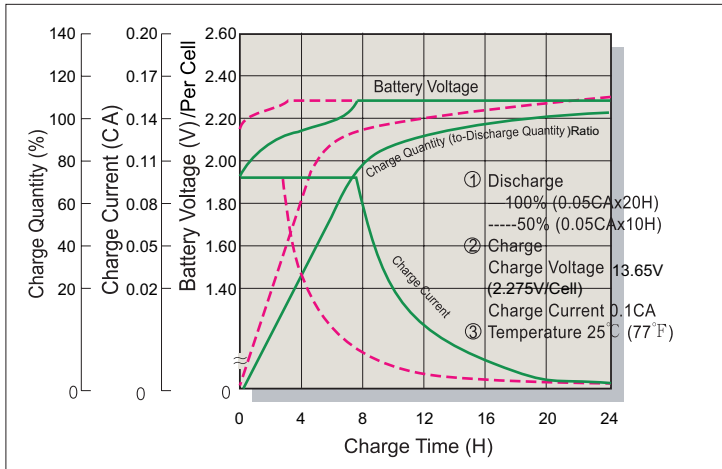
Trickle (or Float) Service Life



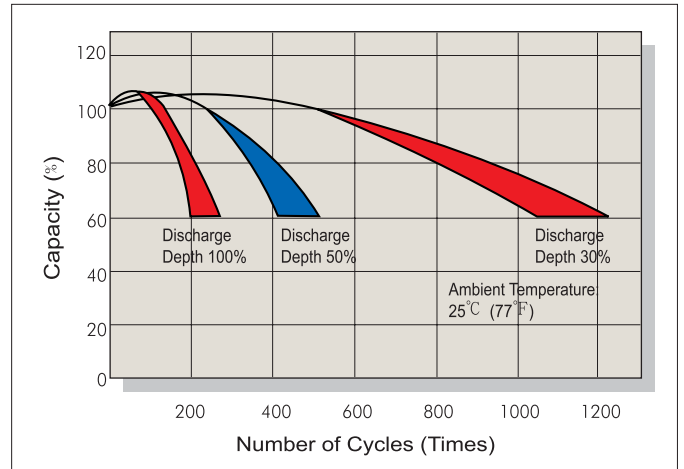
Capacity Retention Characteristic



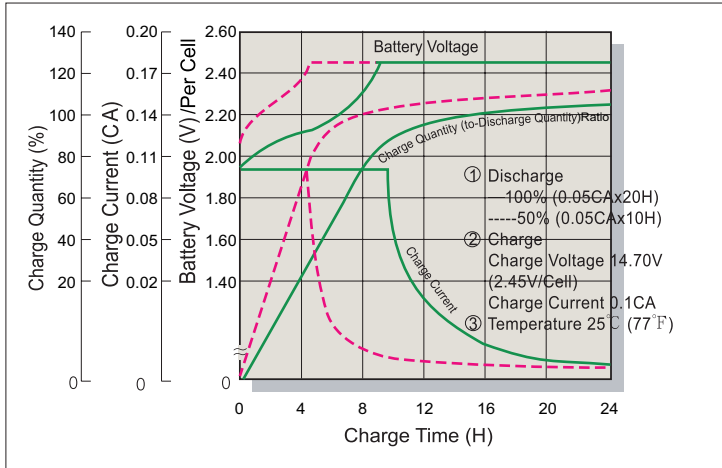
Battery Voltage and Charge Time for Standby Use



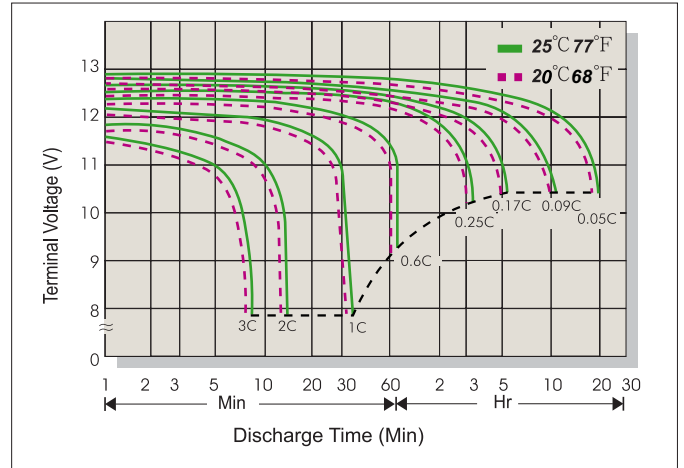
Cycle Service Life



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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