



# Tropicana 12V65 Ah SMF/VRLA Battery

## TP 65- 12

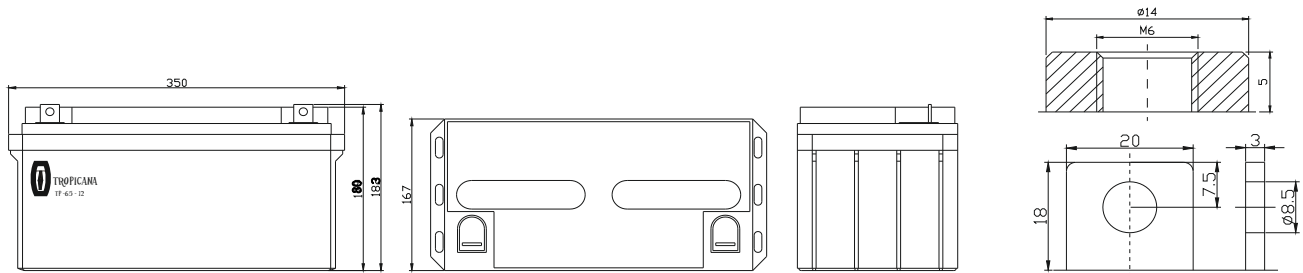
### Specification

Cells Per Unit	6
Voltage Per Unit	12
Capacity	65Ah@10hr-rate to 1.80V per cell @25C °
Weight	Approx. 21.0 Kg
Max. Discharge Current	650A (5 sec)
Internal Resistance	Approx. 6 mΩ
Operating Temperature Range	Discharge: -20 °C~60 °C Charge: 0C~50C ° Storage: -20C~60C °
Normal Operating Temperature Range	25C± 5C
Float charging Voltage	13.6 to 13.8 VDC/unit Average at 25C °
Recommended Maximum Charging Current Limit	19.5 A
Equalization and Cycle Service	14.6 to 14.8 VDC/unit Average at 25C °
Self Discharge	Tropicana Valve Regulated Lead Acid (VRLA) batteries can be stored for more than 6 months at 25C.° Self-discharge ratio less than 3% per month at 25C. Please charge batteries before using.
Terminal	Terminal F5/F11
Container Material	A.B.S. (UL94-HB),



### Dimensions

Unit: mm Dimension: 350(L) × 167(W) × 180(H)



### Constant Current Discharge Characteristics: A (25C) °

F.V/Time	5MIN	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
9.60V	217.8	160.4	125.0	76.18	42.25	25.27	17.45	14.45	12.17	8.312	6.894	3.678
10.0V	211.5	152.6	122.4	74.86	42.06	25.08	17.38	14.39	12.10	8.244	6.828	3.612
10.2V	205.2	147.2	120.5	73.47	41.67	24.89	17.25	14.32	12.02	8.176	6.761	3.545
10.5V	184.3	135.8	114.7	72.92	41.28	24.70	17.18	14.19	11.88	8.109	6.695	3.478
10.8V	166.3	123.9	105.8	71.67	40.30	24.25	16.71	13.85	11.67	7.974	6.629	3.411
11.1V	142.0	110.7	94.87	67.10	38.29	23.18	15.98	13.18	11.17	7.636	6.430	3.210

### Constant Power Discharge Characteristics: W(25C) °

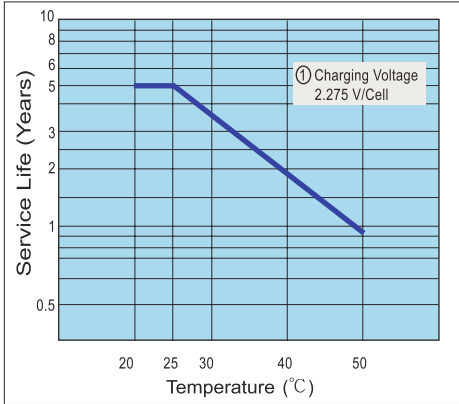
F.V/Time	5MIN	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
9.60V	2298	1708	1363	854.8	488.2	297.8	207.6	172.3	145.2	99.24	82.38	44.10
10.0V	2252	1655	1341	844.3	487.1	296.2	207.7	172.1	144.8	98.76	81.86	43.34
10.2V	2227	1612	1326	838.3	483.3	294.4	206.8	171.7	144.3	98.12	81.14	42.54
10.5V	2027	1501	1265	832.5	478.9	292.3	206.0	170.1	142.6	97.31	80.34	41.73
10.8V	1846	1383	1169	819.2	470.1	288.6	200.4	166.2	140.0	95.69	79.54	40.93
11.1V	1622	1251	1052	771.6	450.0	277.9	191.7	158.2	134.0	91.63	77.16	38.52

All mentioned values are average values.

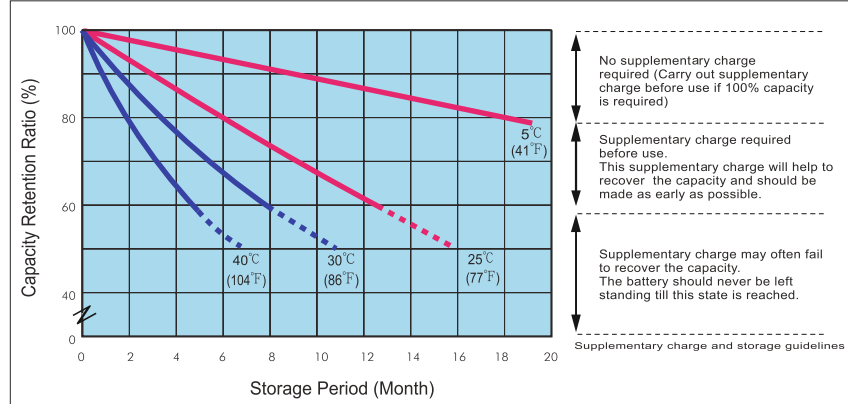


# Tropicana 12V Series SMF/VRLA Battery

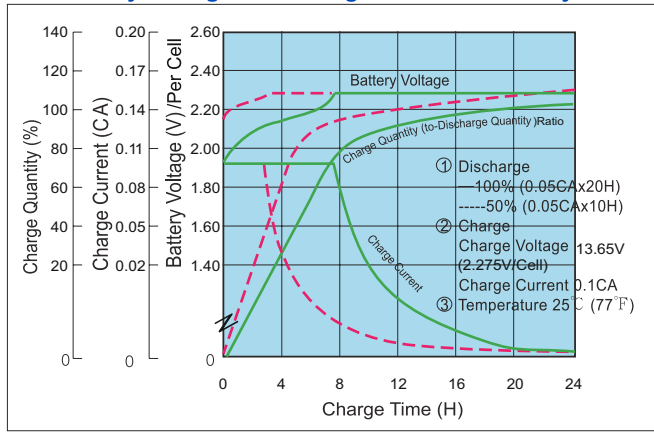
## Trickle (or Float) Service Life



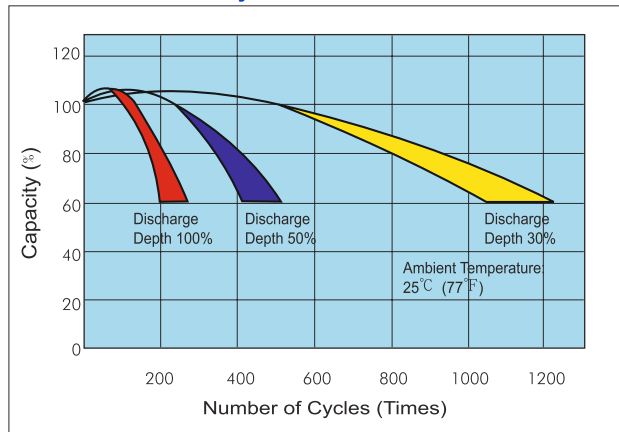
## Capacity Retention Characteristic



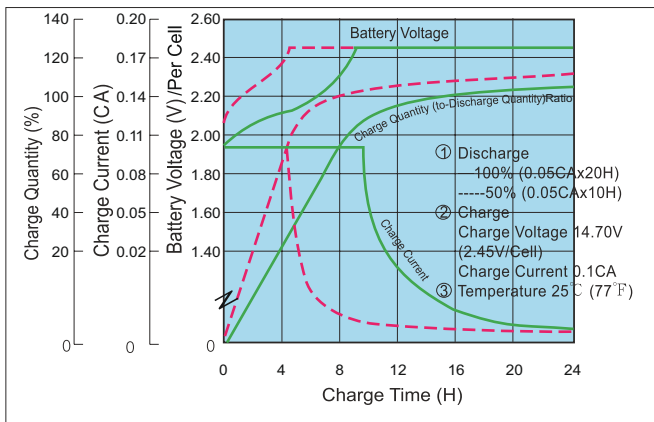
## Battery Voltage and Charge Time for Standby Use



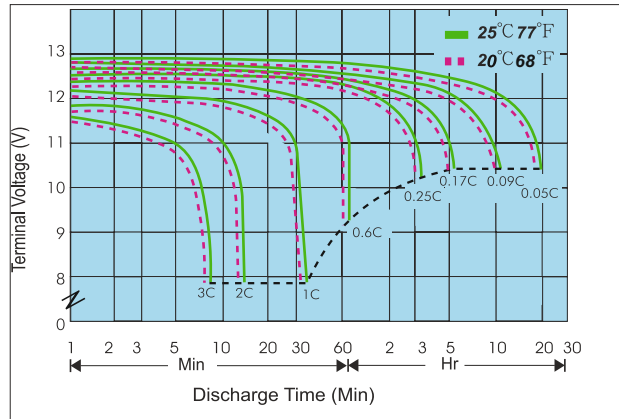
## Cycle Service Life



## 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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