



# Tropicana 12V 100 Ah SMF/VRLA Battery

## TP 100- 12

### Specification

Cells Per Unit	3
Voltage Per Unit	6
Capacity	100Ah@10hr-rate to 1.80V per cell @25C °
Weight	Approx. 31.5 Kg
Max. Discharge Current	1000A (5 sec)
Internal Resistance	Approx. 5 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 13.9 VDC/unit Average at 25C
Recommended Maximum Charging Current Limit	30 A
Equalization and Cycle Service	14.6 to 14.9 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/F12
Container Material	A.B.S. (UL94-HB),



Certified  
9001-2008



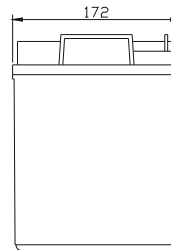
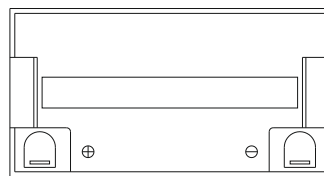
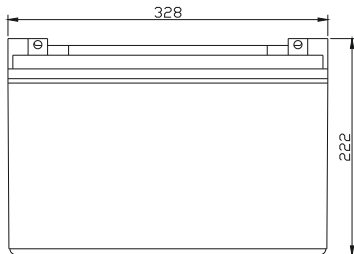
JIS 8702C,  
Pt-I,II,III



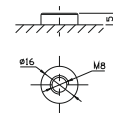
IEC 60896  
21 & 22

### Dimensions

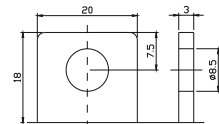
Unit: mm Dimension: 328(L) × 172(W) × 222 (H)



Terminal F12



Terminal F5



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

F.V/Time	5MIN	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
9.60V	320.7	226.9	181.4	112.7	65.00	38.89	26.88	22.03	18.03	12.42	10.50	5.777
10.0V	311.4	215.8	177.7	110.8	64.70	38.60	26.78	21.93	17.93	12.32	10.40	5.672
10.2V	302.2	208.2	174.9	109.8	64.10	38.31	26.57	21.83	17.82	12.22	10.30	5.567
10.5V	271.3	192.1	166.5	107.1	63.50	38.02	26.47	21.62	17.61	12.12	10.20	5.462
10.8V	244.9	175.2	153.5	102.4	62.00	37.33	25.75	21.11	17.29	11.92	10.10	5.357
11.1V	209.1	156.6	137.7	95.91	58.90	35.68	24.62	20.09	16.55	11.41	9.796	5.041

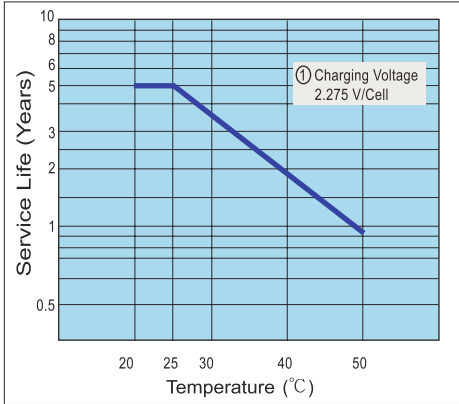
### Constant Power Discharge Characteristics: W(25C) °

F.V/Time	5MIN	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
9.6V	3317	2416	1996	1284	751.1	458.4	319.9	262.6	215.1	148.3	125.5	69.26
10.0V	3251	2342	1964	1269	749.3	456.0	320.0	262.3	214.6	147.6	124.7	68.06
10.2V	3214	2280	1941	1260	743.5	453.3	318.6	261.7	213.9	146.6	123.6	66.80
10.5V	2926	2123	1852	1230	736.8	450.0	317.4	259.3	211.3	145.4	122.4	65.54
10.8V	2665	1957	1712	1179	723.2	444.2	308.7	253.4	207.5	143.0	121.2	64.28
11.1V	2341	1770	1541	1108	692.3	427.7	295.4	241.1	198.6	136.9	117.6	60.50

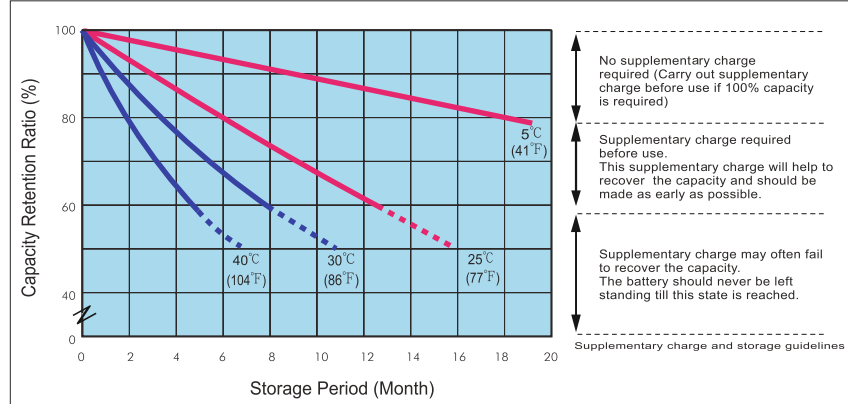


# Tropicana 12V Series SMF/VRLA Battery

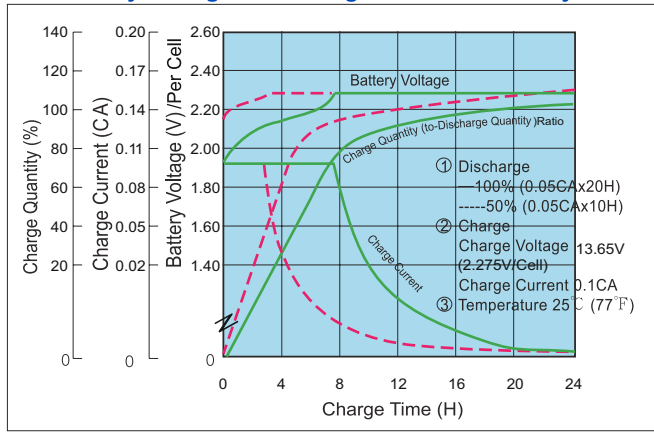
**Trickle (or Float) Service Life**



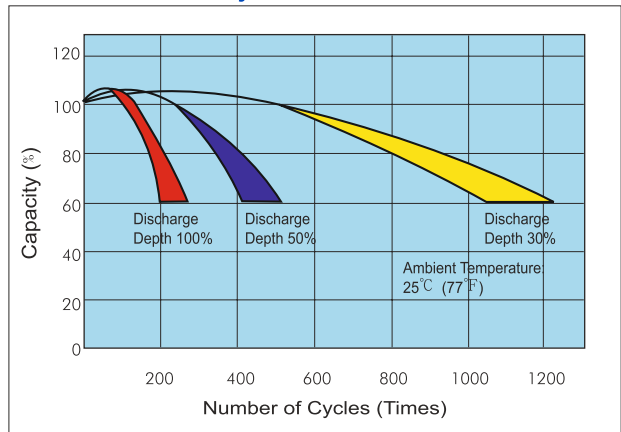
**Capacity Retention Characteristic**



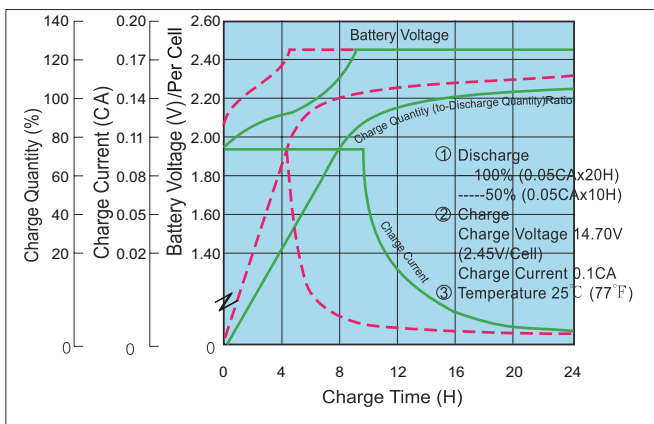
**Battery Voltage and Charge Time for Standby Use**



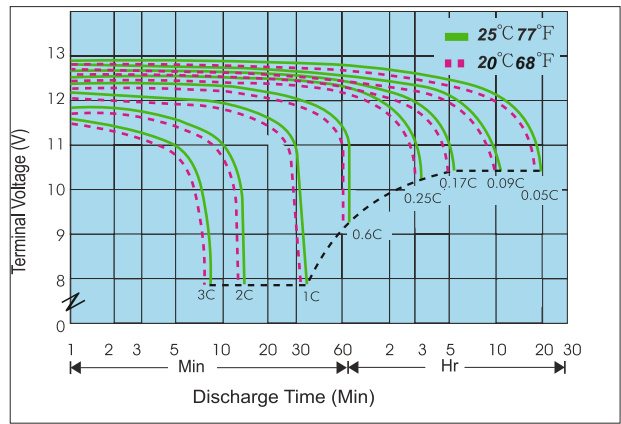
**Cycle Service Life**



**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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