

**UP-PL 100-12FT**



Specification		
Nominal Voltage	12V	
Nominal Capacity (10HR)	100.0AH	
Dimension	Length	397±3mm (15.63 inches)
	Width	108±2mm (4.25 inches)
	Container Height	287±2mm (11.30 inches)
	Total Height (with Terminal)	287±2mm (11.30 inches)
Approx Weight	Approx 31.0Kg (68.2 lbs)	
Terminal	T11	
Container Material	ABS	
Rated Capacity	100.0AH/10.0A	(10hr, 1.80V/cell, 25°C/77°F)
	96.0AH/12.0A	(8hr, 1.75V/cell, 25°C/77°F)
Max. Discharge Current	1200A (5s)	
Internal Resistance	Approx 3.0mΩ	
Operating Temperature Range	Discharge:	-40~65°C (-40~149°F)
	Change :	0~40°C (32~104°F)
	Storage :	-20~40°C (-4~104°F)
Nominal Operating Temperature Range	25±3°C (77±5°F)	
Capacity affected by Temperature	40°C (104°F)	103%
	25°C (77°F)	100%
	0°C (32°F)	86%
Self Discharge	Batteries can be stored up to 24 months at 25°C (77°F) and then a freshening charge is required.	



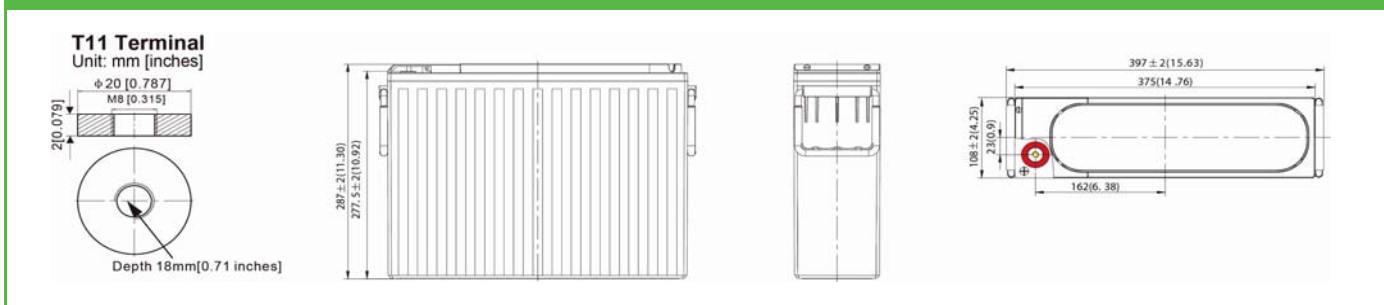
**Constant Current Discharge (Amperes) at 25°C (77°F)**

F.V/Time	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	8h	10h	20h
1.85V/cell	180.9	152.1	131.3	99.6	72.7	56.7	31.9	23.6	19.5	16.6	11.7	9.79	5.10
1.80V/cell	203.3	170.1	141.4	105.2	75.9	59.5	33.4	24.8	20.3	17.1	11.9	10.0	5.20
1.75V/cell	221.2	179.3	147.8	108.3	77.7	60.9	34.4	25.5	20.7	17.4	12.0	10.1	5.26
1.70V/cell	236.2	189.6	155.2	112.2	79.6	62.2	35.0	26.0	21.0	17.7	12.2	10.1	5.30
1.67V/cell	251.7	199.2	162.3	116.6	82.4	64.1	35.9	26.6	21.5	18.0	12.3	10.2	5.35
1.60V/cell	265.8	208.4	168.9	120.4	84.8	65.8	37.0	27.2	21.9	18.3	12.5	10.3	5.39

**Constant Power Discharge (Watts/cell) at 25°C (77°F)**

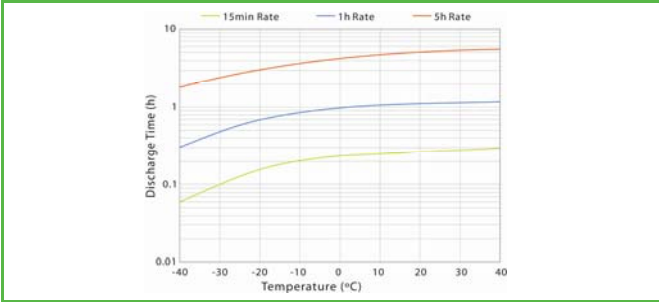
F.V/Time	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	8h	10h	20h
1.85V/cell	343.1	290.4	252.7	194.0	143.5	112.5	63.8	47.3	39.2	33.5	23.6	19.9	10.4
1.80V/cell	380.8	321.1	269.4	203.5	149.2	117.3	66.4	49.5	40.6	34.5	24.0	20.3	10.6
1.75V/cell	408.7	335.3	279.3	207.7	151.7	119.5	68.0	50.7	41.4	34.9	24.2	20.4	10.7
1.70V/cell	430.4	350.2	290.4	213.5	154.5	121.3	68.9	51.5	41.8	35.3	24.4	20.4	10.7
1.67V/cell	453.6	364.4	301.1	220.8	158.9	124.4	70.4	52.5	42.6	35.8	24.7	20.5	10.8
1.60V/cell	470.5	375.2	308.8	225.4	162.0	126.4	71.9	53.2	43.2	36.2	24.9	20.5	10.8

**Dimensions**

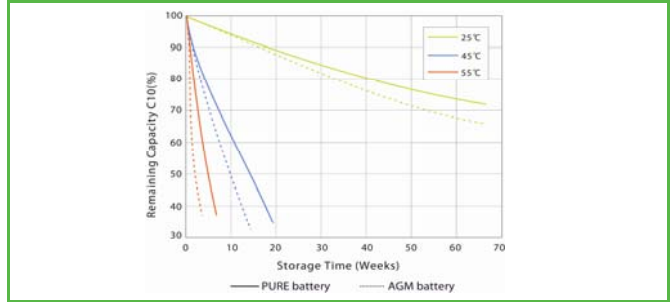


**UP-PL100-12FT**

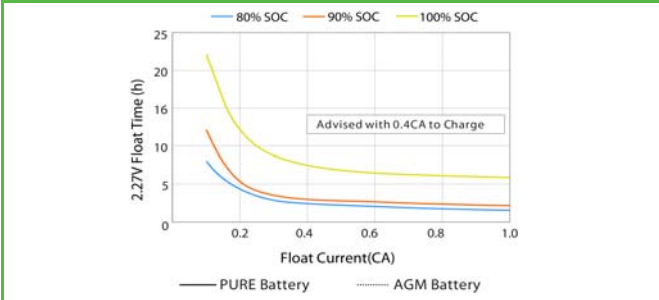
**Effect of Temperature on Discharge Time**



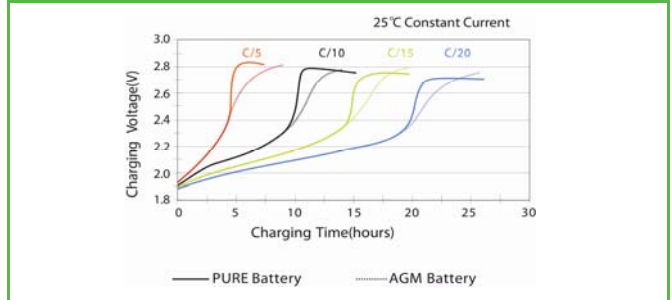
**Self Discharge Characteristics**



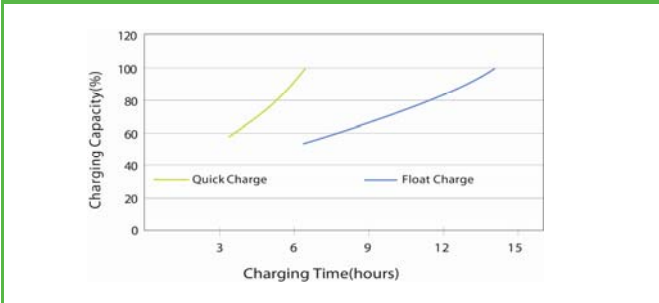
**Float Current vs Float Time**



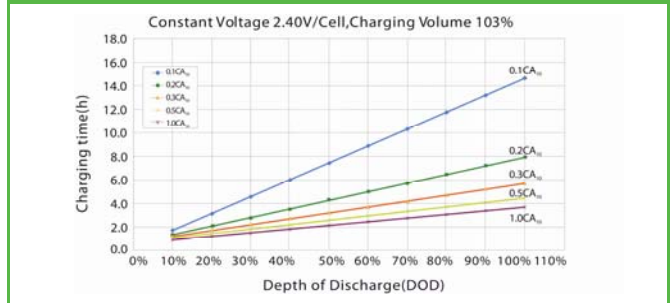
**Voltage Profiles @25°C Constant Current Charging**



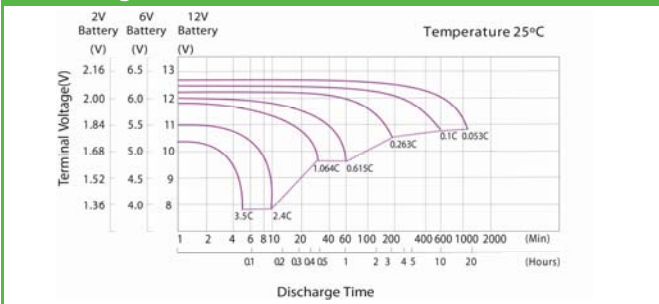
**Quick Charge / Float Charge**



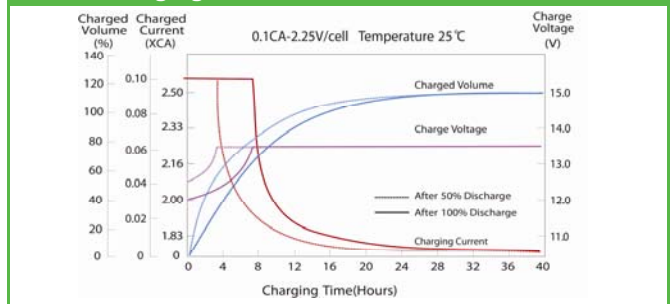
**Charge Time vs The Depth of Discharge**



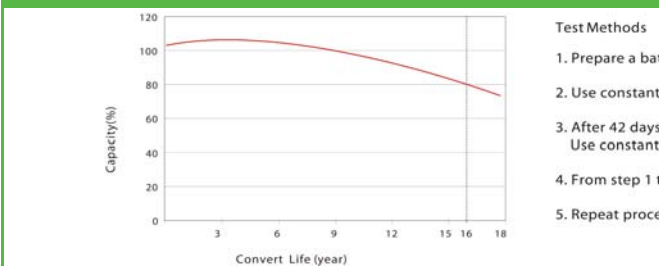
**Discharge Characteristics**



**Float Charging Characteristics**



**Float Life**



**Test Methods**

1. Prepare a battery which past 1h rate capacity testing in 55 ± 2°C ambient testing temperature for test.
2. Use constant voltage 2.25V/cell to charge for 42 days.
3. After 42 days, take the battery out and put in 25 ± 2°C ambient temperature for 1h rate discharging test. Use constant voltage 2.35V/cell to charge battery for 24 hours.
4. From step 1 to 3 is a testing cycle which can be converted into 1 year service life.
5. Repeat procedure 1, 2, 3 till the capacity less than 80% of 1hour rate capacity.

