

**UP-DC33-12**



Specification		
Nominal Voltage	12V	
Nominal Capacity (10HR)	33.0AH	
Dimension	Length	195±2mm (7.68 inches)
	Width	130±2mm (5.12 inches)
	Container Height	164±2mm (6.46 inches)
	Total Height (with Terminal)	180±2mm (7.09 inches)
	Approx Weight	Approx 11.2 Kg (24.7 lbs)
Terminal	T5 / T6 / T12	
Container Material	ABS	
Rated Capacity	35.4 AH/1.77A	(20hr, 1.80V/cell, 25°C/77°F)
	33.0 AH/3.30A	(10hr, 1.80V/cell, 25°C/77°F)
	28.9 AH/5.79A	(5hr, 1.75V/cell, 25°C/77°F)
	26.2 AH/8.75A	(3hr, 1.75V/cell, 25°C/77°F)
	21.3 AH/21.3A	(1hr, 1.60V/cell, 25°C/77°F)
Max. Discharge Current	495A (5s)	
Internal Resistance	Approx 11.0mΩ	
Operating Temperature Range	Discharge:	-15~50°C (5~122°F)
	Change :	0~40°C (32~104°F)
	Storage :	-15~40°C (5~104°F)
Nominal Operating Temperature Range	25±3°C (77±5°F)	
Cycle Use	Initial Charging Current less than 9.9A.Voltage. 14.4V~15.0V at 25°C(77°F)Temp. Coefficient -30mV/°C	
Standby Use	No limit on Initial Charging Current Voltage. 13.5V~13.8V at 25°C(77°F)Temp. Coefficient -20mV/°C	
Capacity affected by Temperature	40°C (104°F)	103%
	25°C (77°F)	100%
	0°C (32°F)	86%
Self Discharge	Batteries may be stored for up to 6 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	6h	8h	10h	20h
1.85V/cell	48.3	40.7	35.5	25.6	20.3	16.5	10.2	7.98	6.46	5.25	4.58	3.74	3.12	1.75
1.80V/cell	61.7	49.1	42.0	30.2	23.6	18.5	11.2	8.59	6.90	5.64	4.91	3.97	3.30	1.77
1.75V/cell	67.8	53.7	45.2	31.3	24.5	19.3	11.6	8.75	7.06	5.79	5.05	4.04	3.33	1.79
1.70V/cell	73.9	57.3	47.5	32.6	25.5	19.9	12.0	8.99	7.24	5.93	5.15	4.09	3.37	1.82
1.65V/cell	79.8	60.9	50.4	34.4	26.1	20.6	12.4	9.37	7.49	6.10	5.27	4.16	3.44	1.84
1.60V/cell	86.6	65.1	53.7	36.3	27.2	21.3	12.8	9.66	7.73	6.30	5.38	4.20	3.47	1.85

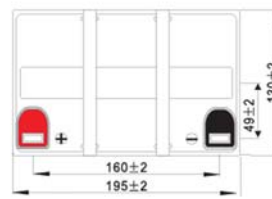
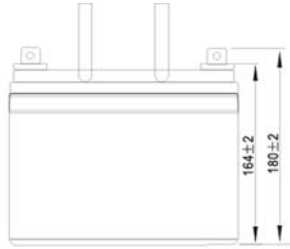
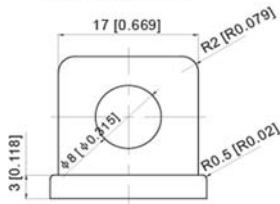
Constant Power Discharge (Watts) at 25°C (77°F)														
F.V/Time	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	90.1	76.6	67.7	49.1	39.3	32.0	19.9	15.6	12.7	10.3	9.05	7.40	6.17	3.51
1.80V/cell	113.6	91.2	78.8	57.3	45.3	35.6	21.6	16.7	13.4	11.0	9.67	7.84	6.53	3.53
1.75V/cell	123.3	98.7	84.1	59.2	46.8	37.1	22.4	17.0	13.7	11.3	9.92	7.96	6.59	3.56
1.70V/cell	132.6	104.6	87.9	61.3	48.5	38.2	23.2	17.4	14.1	11.6	10.1	8.07	6.65	3.63
1.65V/cell	142.0	110.5	92.9	64.4	49.6	39.3	23.8	18.1	14.5	11.9	10.3	8.19	6.78	3.67
1.60V/cell	151.6	116.8	97.9	67.3	51.2	40.4	24.4	18.5	14.9	12.2	10.5	8.26	6.85	3.68



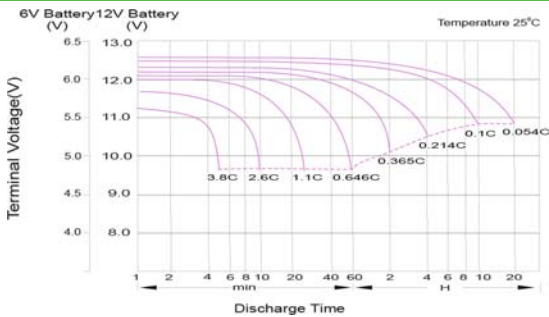
**UP-DC33-12**

**Dimensions**

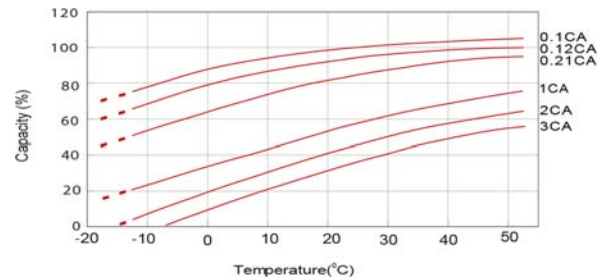
T5 Terminal  
Unit: mm [inches]



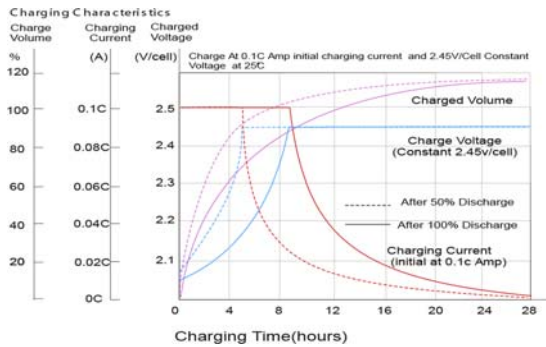
**Discharge Characteristics**



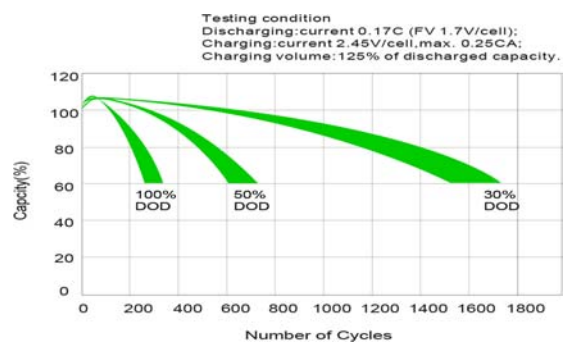
**Temperature Effects in Relation to Battery Capacity**



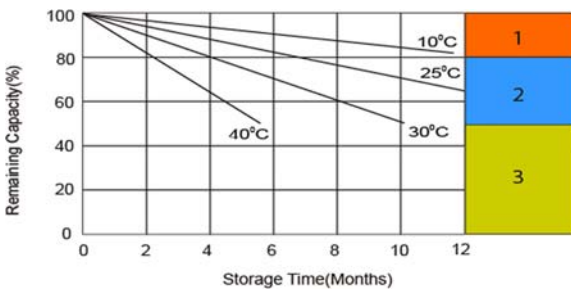
**Charging Characteristics (cycle use)**



**Cycle Life in Relation to Depth of Discharge**



**Self Discharge Characteristics**



- 1** No supplementary charge required  
(Carry out supplementary charge before use if 100% capacity is required.)
- 2** Supplementary charge required before use. Optional charging way as below:
  1. Charged for above 3 days at limited current 0.25CA and constant voltage 2.25V/cell.
  2. Charged for above 20hours at limited current 0.25CA and constant voltage 2.45V/cell.
  3. Charged for 8~10hours at limited current 0.05CA .
- 3** Supplementary charge may often fail to recover the capacity.  
The battery should never be left standing till this is reached.

