

UP-HR100-12



Specification		
Nominal Voltage	12V	
Watts(15min Rate)	356.1 W at 1.67V/cell	
Dimension	Length	330±3mm (12.99 inches)
	Width	173±2mm (6.81 inches)
	Container Height	212±2mm (8.35 inches)
	Total Height (with Terminal)	220±2mm (8.66 inches)
Approx Weight	Approx 30.0 kg (66.2lbs)	
Terminal	T11	
Container Material	ABS	
Rated Capacity	104.0 AH/10.4A	(10hr, 1.80V/cell, 25°C/77°F)
	100.0 AH/12.5A	(8hr, 1.80V/cell, 25°C/77°F)
	89.0 AH/17.8A	(5hr, 1.75V/cell, 25°C/77°F)
	81.6 AH/27.2A	(3hr, 1.75V/cell, 25°C/77°F)
	78.0 AH/78.0A	(1hr, 1.60V/cell, 25°C/77°F)
Max. Discharge Current	1200A (5s)	
Internal Resistance	Approx 4.9mΩ	
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 30.0A. 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	5min	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	185.8	149.7	137.5	120.5	97.7	76.0	62.1	35.1	25.6	20.3	17.3	14.7	12.0	10.0	5.33
1.80V/cell	244.5	185.7	161.3	138.2	111.9	85.7	67.5	37.6	26.7	21.0	17.4	15.1	12.5	10.4	5.42
1.75V/cell	275.7	204.0	176.2	148.7	116.2	89.0	70.6	39.0	27.2	21.4	17.8	15.6	12.7	10.5	5.47
1.70V/cell	303.6	222.3	188.2	156.4	119.9	91.7	72.8	40.4	27.9	22.0	18.2	15.9	12.9	10.6	5.57
1.65V/cell	334.8	240.0	200.1	166.1	125.7	94.6	75.5	41.6	29.2	22.8	18.7	16.3	13.2	10.8	5.64
1.60V/cell	369.4	260.5	214.1	176.9	131.2	98.9	78.0	43.1	30.1	23.5	19.4	16.6	13.3	10.9	5.67

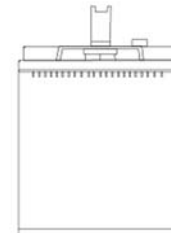
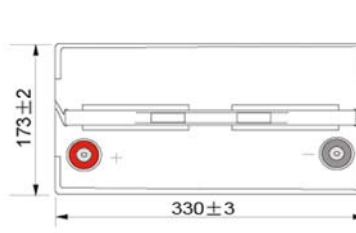
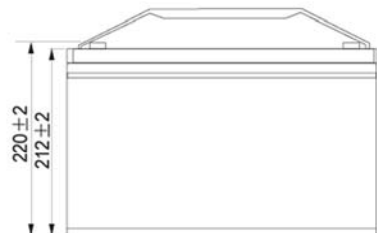
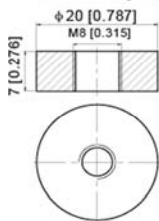
Constant Power Discharge (Watts) at 25°C (77°F)															
F.V/Time	5min	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	339.7	276.4	256.7	227.1	186.2	146.0	119.7	68.2	50.1	40.0	34.3	29.4	23.6	19.7	10.6
1.80V/cell	442.3	338.9	297.0	256.8	210.0	163.5	129.4	72.5	52.1	41.2	34.3	30.2	24.4	20.5	10.8
1.75V/cell	488.1	366.4	320.5	273.6	216.3	168.1	134.8	74.9	52.9	42.0	35.1	30.9	24.7	20.7	10.9
1.70V/cell	522.6	390.3	337.5	285.4	222.0	172.5	138.6	77.2	54.2	43.1	36.0	31.5	25.1	20.9	11.1
1.65V/cell	568.2	417.5	356.1	301.0	230.9	176.4	142.6	79.4	56.3	44.3	36.9	32.1	25.5	21.2	11.2
1.60V/cell	612.4	442.9	374.5	317.1	239.2	183.4	146.5	81.7	57.7	45.6	37.9	32.7	25.7	21.4	11.3



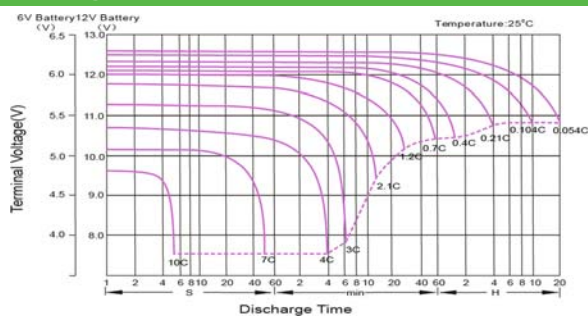
UP-HR100-12

Dimensions

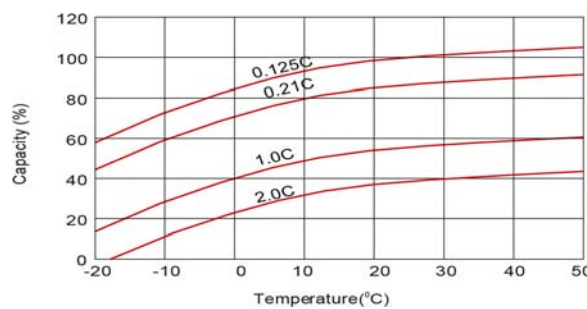
■ T11 Terminal
Unit: mm [inches]



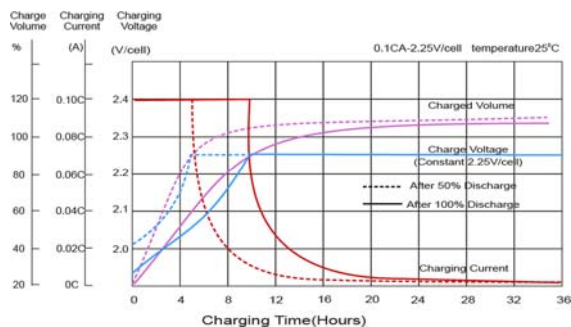
Discharge Characteristics



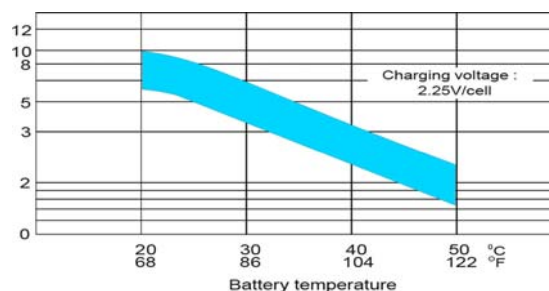
Temperature Effects in Relation to Battery Capacity



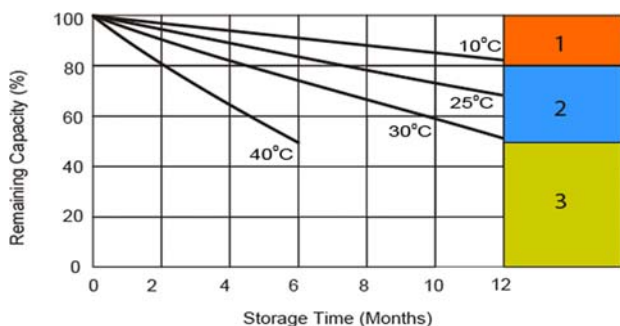
Float Charging Characteristics



Effect of Temperature on Long Term Float Life



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 20 hours at limited current 0.25CA and constant voltage 2.45V/cell.
 3. Charged for 8-10 hours 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.



Poligono industrial La Dehesa
C/ Dehesa Vieja, nº2 Nave 16
28052 Madrid (Spain)
Tel. (+34) 918 021 649
Fax. (+34) 917 750 542
info@masterbattery.es

