

## High Power AGM Battery-UCP Series

# UCP12-400 (12V400W)

## Application

- Telecommunication center room
- Uninterruptable Power Supply (UPS)
- Electric Power System (EPS)
- Emergency backup power supply
- Emergency light
- Railway signal
- Aircraft signal
- Alarm and security system
- Electronic apparatus and equipment

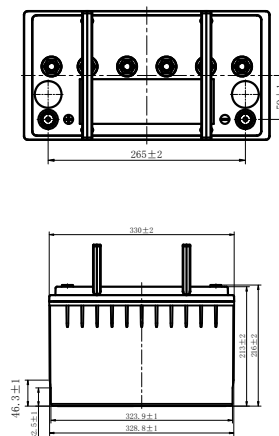


## Features

- High Performance: 10~12 years design life
- VRLA Battery, maintenance-free
- Low self-discharge rate
- Silver-coated copper terminals
- PbCaSn alloy for plate grids: less gassing, less self-discharge
- ABS container, Flame retardant UL94-V0

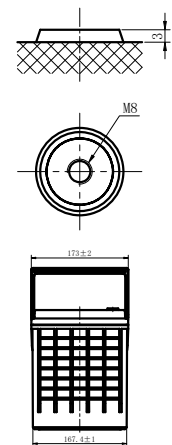
### Layout

Unit: mm



### Terminal

**T11 Terminal**  
Unit: mm [inches]

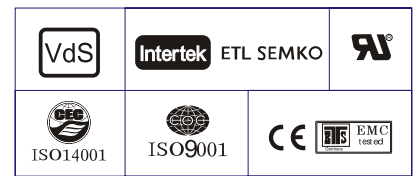


## High Power AGM Battery-UCP Series

# UCP12-400 (12V400W)

### Specification

Nominal Voltage	12V	
Dimension	Length	330±3mm (12.99 inches)
	Width	173±2mm (6.81 inches)
	Container Height	213±3mm (8.39inches)
	Total Height (with Terminal)	216±1mm (8.50inches)
Rated Capacity	100.0 AH/10.0A	(10hr, 1.80V/cell, 25°C/77°F)
	96.0 AH/12.0A	(8hr, 1.80V/cell, 25°C/77°F)
	89.0 AH/17.8A	(5hr, 1.75V/cell, 25°C/77°F)
	77.4 AH/25.8A	(3hr, 1.75V/cell, 25°C/77°F)
	67.7 AH/67.7A	(1hr, 1.60V/cell, 25°C/77°F)
Approx Weight	Approx 30.2 kg (66.6lbs)	
Terminal	T11	
Container Material	ABS	
Max. Discharge Current	1500A (5s)	
Internal Resistance	Approx 3.5mΩ	
Operating Temp.Range	Discharge : -15~50°C (5~122°F)	
	Charge : 0~40°C (32~104°F)	
	Storage : -15~40°C (5~104°F)	
Nominal Operating Temp. 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	UCP series batteries may be stored for up to 9 months at 25°C(77°F) and then a freshening charge is required. For higher temperatures the time interval will be shorter.	



### Performance - 25 °C

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

F.V/Time	5min	10min	15min	20min	25min	30min	45min	1h	1.5h	2h	3h	4h	5h	8h	10h
1.85V/cell	175.9	165.0	152.0	133.2	116.1	101.0	72.4	56.7	40.5	32.3	23.8	19.4	16.5	11.8	9.74
1.80V/cell	209.6	188.4	167.6	144.6	123.8	107.2	76.8	60.3	42.8	34.0	24.9	20.2	17.1	12.1	10.0
1.75V/cell	237.6	208.9	184.8	155.7	131.0	112.7	80.1	62.9	44.4	35.2	25.8	20.8	17.6	12.2	10.1
1.70V/cell	271.2	234.1	205.1	166.8	138.1	117.7	82.7	64.7	45.8	36.3	26.4	21.3	18.0	12.4	10.2
1.67V/cell	302.6	254.4	217.4	173.7	143.2	121.7	84.8	66.3	46.8	37.1	26.9	21.6	18.2	12.5	10.3
1.60V/cell	330.0	271.8	225.6	179.1	146.9	125.0	86.5	67.7	47.7	37.8	27.6	22.1	18.6	12.6	10.4

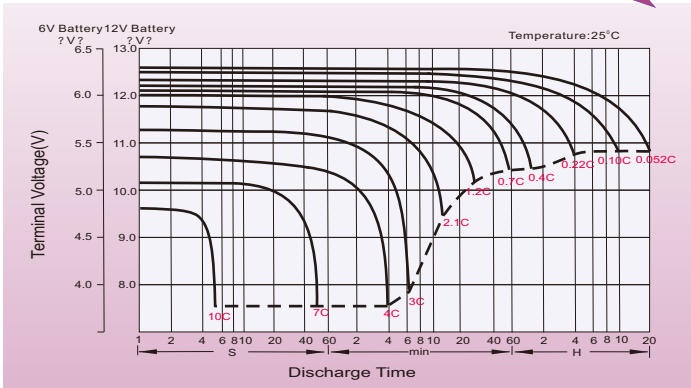
#### Constant Power Discharge (Watts) at 25 °C (77°F)

F.V/Time	5min	10min	15min	20min	25min	30min	45min	1h	1.5h	2h	3h	4h	5h	8h	10h
1.85V/cell	331.0	314.3	293.3	259.6	227.4	198.9	143.8	113.4	81.1	64.9	48.0	39.3	33.5	24.0	20.0
1.80V/cell	390.1	354.6	320.2	279.2	240.8	209.9	151.8	120.1	85.5	68.1	50.1	40.8	34.6	24.6	20.5
1.75V/cell	436.5	388.8	349.1	297.6	252.9	219.2	157.7	124.8	88.4	70.3	51.7	41.9	35.6	24.8	20.6
1.70V/cell	491.4	430.1	381.9	315.4	263.9	227.1	161.9	127.6	90.6	72.1	52.7	42.8	36.2	25.1	20.8
1.67V/cell	539.9	460.5	400.0	324.8	271.2	232.6	164.8	129.8	92.1	73.2	53.5	43.3	36.6	25.3	20.9
1.60V/cell	579.5	484.9	408.3	330.0	272.9	236.0	166.2	131.5	93.2	74.1	54.6	44.1	37.3	25.5	21.1

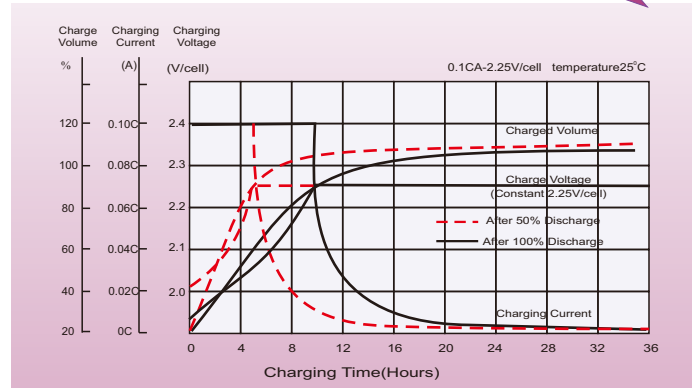
## High Power AGM Battery-UCP Series

### Characteristic Curve

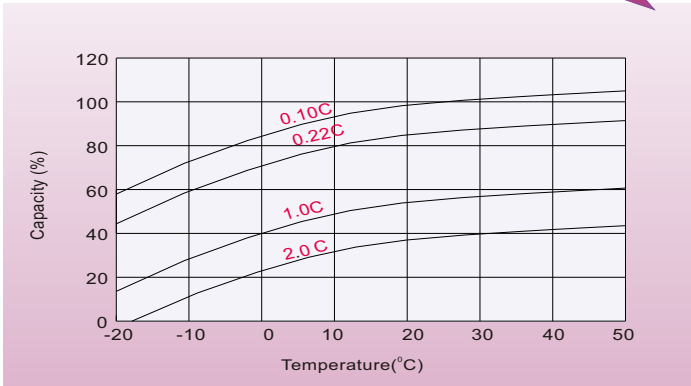
#### Discharge Characteristics



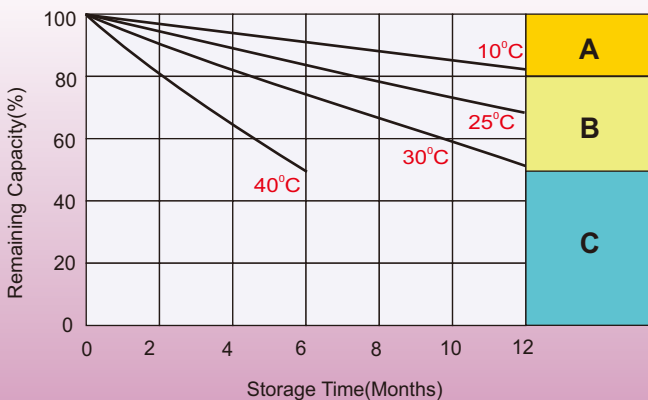
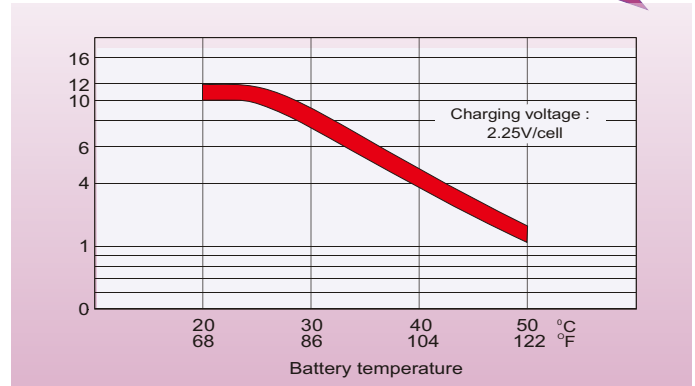
#### Float Charging Characteristics



#### Temperature Effects in Relation to Battery Capacity



#### Effect of Temperature on Long Term Float Life



#### Self Discharge Characteristics

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