

High Power AGM Battery-UCP Series

UCP12-810 (12V810W)

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

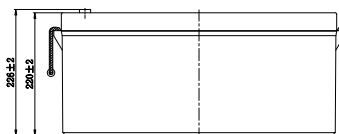
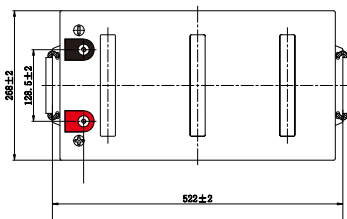


Features

- 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

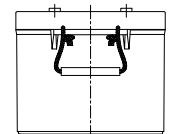
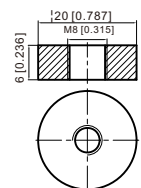
Layout

Unit: mm



Terminal

T11 Terminal
Unit: mm [inches]

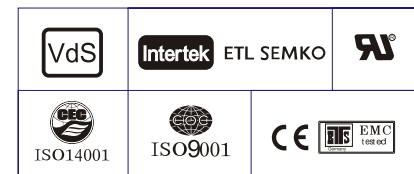


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Specification

Nominal Voltage	12V
Dimension	Length 522±3mm (12.99 inches)
	Width 268±2mm (10.55 inches)
	Container Height 220±3mm (8.66inches)
	Total Height (with Terminal) 226±1mm (8.90inches)
Rated Capacity	250.0 AH/25.0A (10hr, 1.80V/cell, 25°C/77°F)
	240.0 AH/30.0A (8hr, 1.80V/cell, 25°C/77°F)
	222.5 AH/44.5A (5hr, 1.75V/cell, 25°C/77°F)
	193.8 AH/64.6A (3hr, 1.75V/cell, 25°C/77°F)
	165.0 AH/165.0A (1hr, 1.60V/cell, 25°C/77°F)
Approx Weight	Approx 73.0 kg (161.0lbs)
Terminal	T11
Container Material	ABS
Max. Discharge Current	2500A (5s)
Internal Resistance	Approx 2.5mΩ
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	435.0	369.0	334.0	300.8	262.4	229.9	167.3	132.0	96.5	78.8	59.4	48.8	41.5	29.3	24.4
1.80V/cell	516.0	409.7	363.0	322.5	278.7	242.5	175.7	139.7	101.9	83.0	62.0	50.8	43.1	30.0	25.0
1.75V/cell	588.0	448.7	390.7	341.3	293.9	257.0	186.3	148.3	107.3	86.8	64.6	52.7	44.5	30.6	25.2
1.70V/cell	649.2	487.5	419.0	360.7	311.4	272.5	195.3	154.3	111.3	89.9	66.3	53.9	45.4	31.0	25.5
1.67V/cell	714.6	523.5	440.2	379.5	326.1	284.5	202.3	160.1	115.1	92.6	68.3	55.1	46.1	31.3	25.7
1.60V/cell	771.0	558.0	464.0	396.8	340.8	295.5	209.0	165.0	118.4	95.1	69.4	55.9	47.0	31.8	26.2

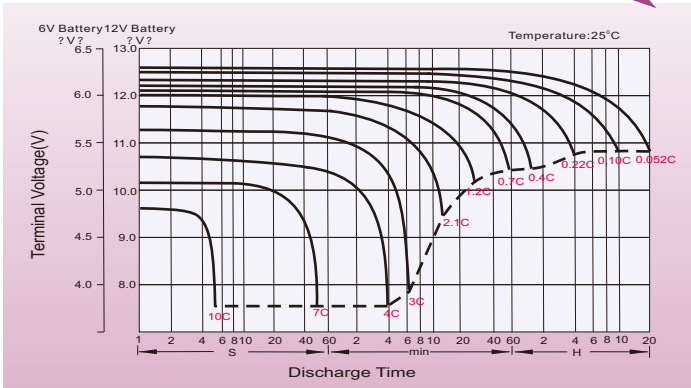
Constant Power Discharge (Watts) at 25 °C (77°F)

F.V/Time	5min	10min	15min	20min	25min	30min	45min	1h	1.5h	2h	3h	4h	5h	8h	10h
1.85V/cell	815.6	702.9	644.6	586.1	514.1	452.7	332.4	264.0	193.5	158.3	119.9	98.8	84.3	59.8	50.0
1.80V/cell	954.6	771.0	693.4	622.7	542.0	474.9	347.3	278.2	203.5	166.3	124.8	102.6	87.2	61.1	51.2
1.75V/cell	1071.2	832.5	738.1	652.3	566.5	499.4	366.5	294.1	213.4	173.1	129.5	106.0	89.9	62.1	51.6
1.70V/cell	1163.0	892.3	781.7	682.4	594.7	525.3	381.9	304.2	220.5	178.7	132.7	108.4	91.4	62.8	52.0
1.67V/cell	1253.7	942.3	810.0	709.6	616.5	543.7	392.7	313.4	226.6	183.4	136.2	110.3	92.6	63.4	52.4
1.60V/cell	1318.4	984.2	838.4	731.0	635.6	557.8	401.3	320.5	231.3	186.8	137.4	111.4	94.0	64.1	53.1

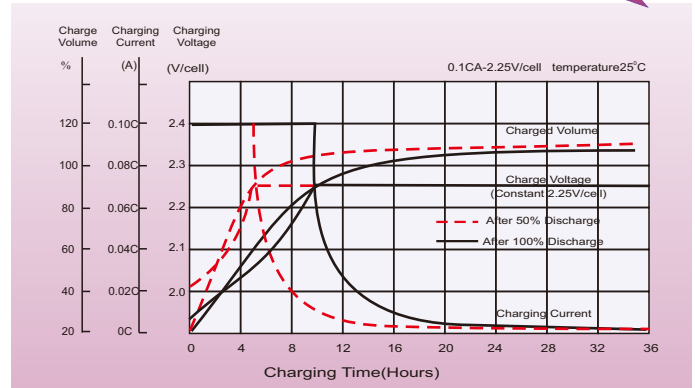
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Characteristic Curve

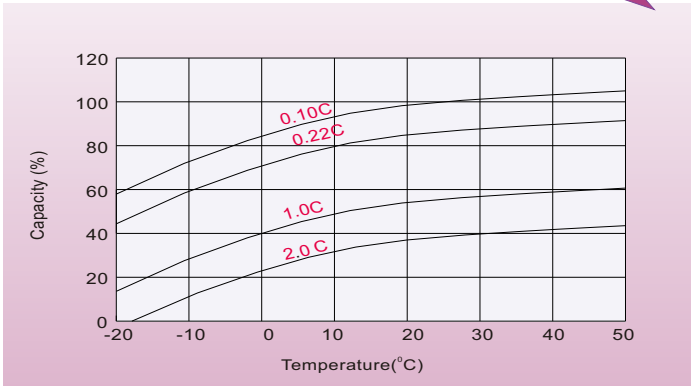
Discharge Characteristics



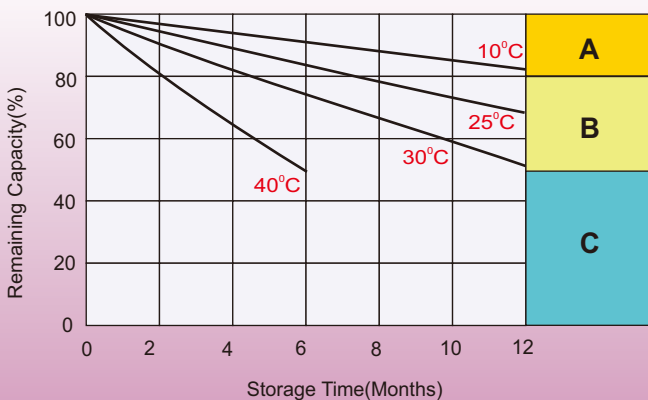
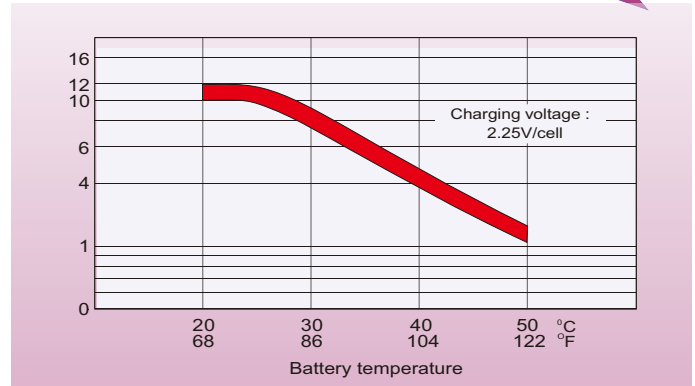
Float Charging Characteristics



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.