

High Power AGM Battery-UCP Series

UCP12-38 (12V38W)

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

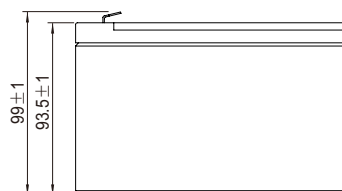
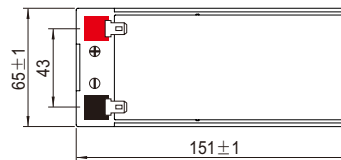


Features

- 4~6 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

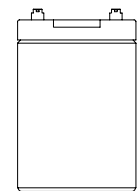
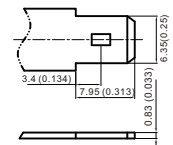
Layout

Unit: mm



Terminal

T2 Terminal
Unit: mm [inches]

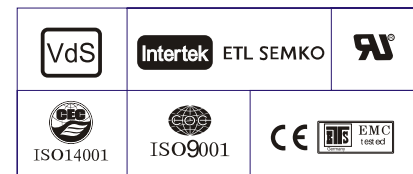


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Specification

Nominal Voltage	12V
Dimension	Length 151±2mm (5.95 inches)
	Width 65±1mm (2.56 inches)
	Container Height 93.5±1mm (3.68 inches)
	Total Height (with Terminal) 99±1mm (3.90 inches)
Rated Capacity	7.50 AH/0.750A (10hr, 1.80V/cell, 25°C/77°F)
	7.232 AH/0.904A (8hr, 1.80V/cell, 25°C/77°F)
	6.80 AH/1.36A (5hr, 1.75V/cell, 25°C/77°F)
	6.18 AH/2.06A (3hr, 1.75V/cell, 25°C/77°F)
	5.78AH/5.78A (1hr, 1.60V/cell, 25°C/77°F)
Approx Weight	Approx 2.48 kg (5.47lbs)
Terminal	T11
Container Material	ABS
Max. Discharge Current	105A (5s)
Internal Resistance	Approx 20.0mΩ
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	26.1	17.0	14.0	12.0	10.2	8.68	6.07	4.71	3.65	2.59	1.89	1.51	1.27	0.859	0.707
1.80V/cell	28.8	18.9	15.8	13.3	11.1	9.41	6.54	5.03	3.90	2.77	2.00	1.59	1.33	0.904	0.750
1.75V/cell	31.6	21.0	17.5	14.3	11.7	9.94	6.86	5.25	4.06	2.86	2.06	1.63	1.36	0.916	0.757
1.70V/cell	34.1	22.9	19.1	15.2	12.3	10.4	7.15	5.46	4.20	2.94	2.10	1.66	1.38	0.929	0.765
1.67V/cell	36.8	24.7	20.5	15.9	12.9	10.8	7.38	5.63	4.32	3.02	2.14	1.69	1.40	0.938	0.773
1.60V/cell	39.5	25.9	21.2	16.5	13.3	11.2	7.58	5.78	4.43	3.08	2.16	1.71	1.42	0.945	0.779

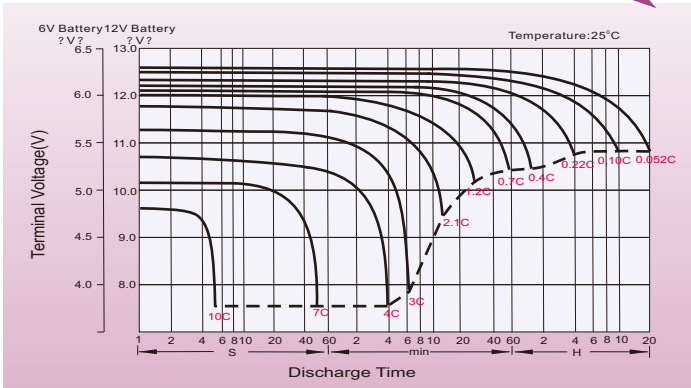
Constant Power Discharge (Watts) at 25 °C (77°F)

F.V/Time	5min	10min	15min	20min	25min	30min	45min	1h	1.5h	2h	3h	4h	5h	8h	10h
1.85V/cell	49.4	32.5	27.1	23.4	20.0	17.1	12.1	9.43	7.33	5.21	3.82	3.06	2.57	1.76	1.45
1.80V/cell	53.7	35.8	30.3	25.6	21.5	18.4	12.9	10.0	7.79	5.55	4.03	3.20	2.69	1.84	1.53
1.75V/cell	58.0	39.3	33.1	27.4	22.7	19.3	13.5	10.4	8.08	5.71	4.13	3.28	2.74	1.86	1.55
1.70V/cell	61.5	42.3	35.9	28.8	23.6	20.1	14.0	10.8	8.32	5.84	4.20	3.34	2.79	1.88	1.56
1.67V/cell	65.4	44.8	38.0	29.9	24.4	20.7	14.3	11.0	8.50	5.97	4.26	3.37	2.82	1.90	1.57
1.60V/cell	68.7	46.1	38.6	30.5	24.8	21.1	14.6	11.2	8.66	6.06	4.28	3.40	2.84	1.91	1.58

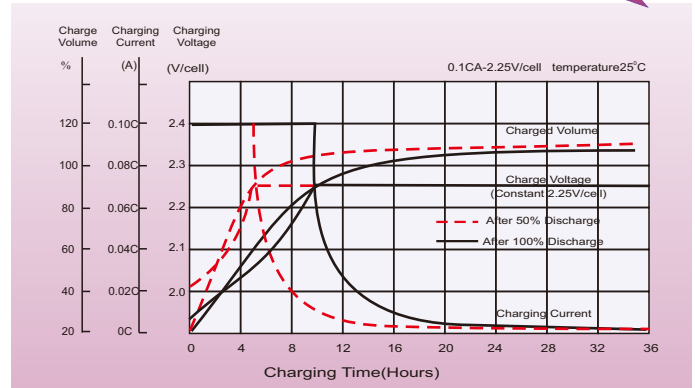
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Characteristic Curve

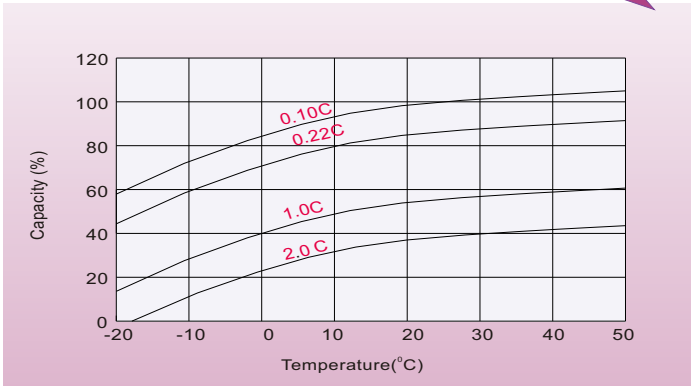
Discharge Characteristics



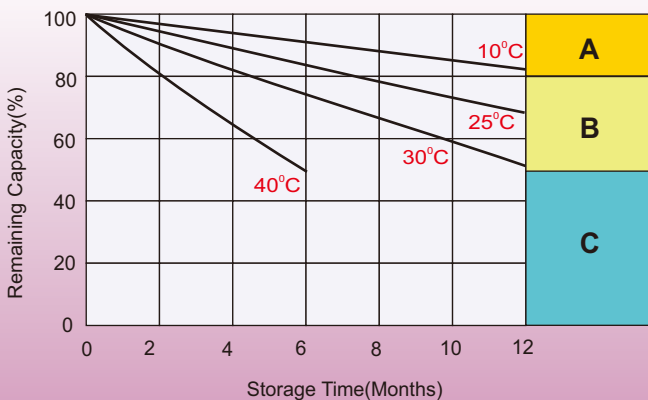
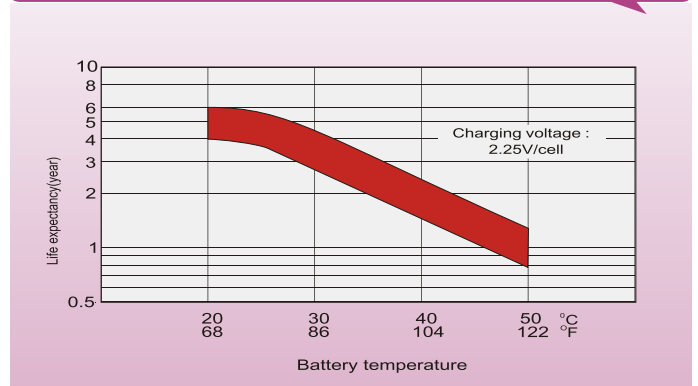
Float Charging Characteristics



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.