



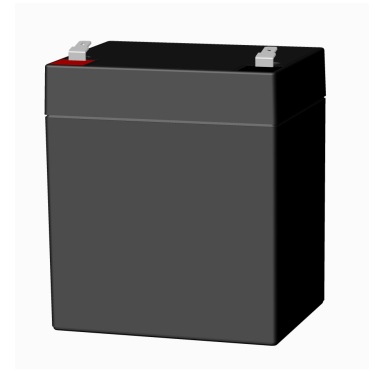
# US Series-General Purpose

## US12-5(12V5.4Ah)

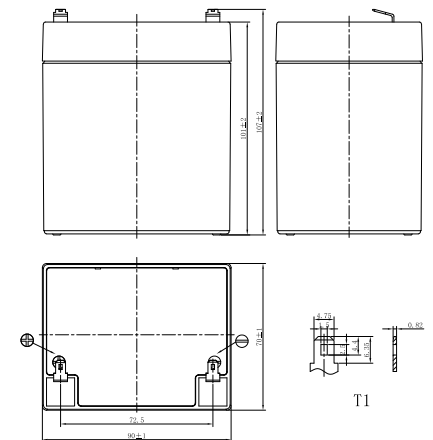


### Specifications

Rated Voltage	12V	
Nominal Capacity	5.4Ah	(C <sub>20</sub> , 1.75V/cell)
Dimension	Length	90±1mm (3.54 inches)
	Width	70±1mm (2.76 inches)
	Container Height	101±2mm (3.98 inches)
	Total Height	107±2mm (4.21 inches)
Approx Weight	1.80 Kg (3.96 lbs)	
Terminal	T1/T2	
Container Material	ABS	
Rated Capacity (25°C)	5.40 Ah	(20hr, 0.270A, 1.80V/cell)
	5.11 Ah	(10hr, 0.511A, 1.80V/cell)
	4.65 Ah	(5hr, 0.929A, 1.75V/cell)
	4.14 Ah	(3hr, 1.38A, 1.75V/cell)
	3.68 Ah	(1hr, 3.68A, 1.60V/cell)
Max. Discharge Current	81A (5s)	
Internal Resistance (25°C)	Approx 25mΩ	
Operating Temp. Range	Discharge	-15 ~ 50°C (5 ~ 122°F)
	Charge	-20 ~ 40°C (-4 ~ 104°F)
	Storage	-15 ~ 40°C (5 ~ 104°F)
Nominal Operating Temp. Range	25±3°C (77±5°F)	
Cycle Use	Initial Charging Current less than 1.62A. Voltage 14.4V~15.0V at 25°C(77°F)Temp. Coefficient -30mV/°C	
	Initial Charging Current less than 1.62A. Voltage 13.5V~13.8V at 25°C(77°F)Temp. Coefficient -20mV/°C	
Effect of temp. to Capacity	40°C (104°F)	103%
	25°C (77°F)	100%
	0°C (32°F)	86%
Self Discharge	US series batteries may be stored for up to 6 months at 25°C(77°F) and then a freshening charge is required. For higher temperatures the time interval will be shorter.	



### Layout



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

F.V/Time	5min	10min	15min	20min	30min	45min	1h	1.5h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	17.9	12.7	9.79	7.96	5.76	4.14	3.33	2.40	1.85	1.33	1.06	0.905	0.775	0.610	0.499	0.264
1.80V/cell	19.2	13.4	10.3	8.28	5.94	4.25	3.41	2.45	1.88	1.36	1.08	0.918	0.787	0.619	0.506	0.267
1.75V/cell	20.3	14.0	10.6	8.51	6.09	4.34	3.48	2.49	1.92	1.38	1.09	0.929	0.796	0.626	0.511	0.270
1.70V/cell	21.2	14.5	11.0	8.76	6.25	4.44	3.55	2.53	1.95	1.40	1.11	0.942	0.805	0.632	0.516	0.272
1.67V/cell	22.0	15.0	11.2	8.94	6.36	4.51	3.60	2.57	1.97	1.41	1.12	0.950	0.812	0.637	0.520	0.274
1.60V/cell	23.3	15.6	11.6	9.20	6.53	4.62	3.68	2.62	2.01	1.44	1.14	0.966	0.824	0.646	0.526	0.277

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

F.V/Time	5min	10min	15min	20min	30min	45min	1h	1.5h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	33.8	24.1	18.7	15.3	11.1	8.03	6.48	4.68	3.62	2.62	2.09	1.79	1.53	1.21	0.992	0.528
1.80V/cell	36.0	25.4	19.5	15.9	11.4	8.22	6.62	4.76	3.68	2.66	2.12	1.81	1.55	1.23	1.00	0.534
1.75V/cell	37.5	26.2	20.1	16.2	11.7	8.36	6.72	4.83	3.73	2.70	2.15	1.83	1.57	1.24	1.01	0.540
1.70V/cell	38.9	27.1	20.6	16.6	11.9	8.52	6.83	4.91	3.78	2.73	2.17	1.85	1.59	1.25	1.02	0.544
1.67V/cell	40.0	27.7	21.1	16.9	12.1	8.63	6.92	4.96	3.81	2.75	2.19	1.87	1.60	1.26	1.03	0.549
1.60V/cell	41.6	28.5	21.6	17.3	12.4	8.79	7.04	5.04	3.88	2.80	2.22	1.89	1.62	1.28	1.04	0.555



# US Series-General Purpose US12-5(12V5.4Ah)



## Applications

- All purpose
- Uninterruptable Power Supply (UPS)
- Electric Power System (EPS)
- Emergency backup power supply
- Alarm and security system
- Communication power supply
- DC power supply
- Auto control system

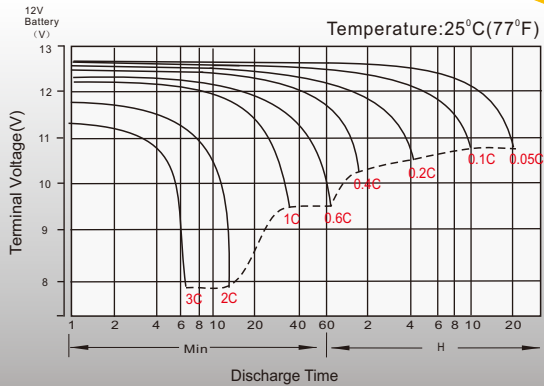
## General Features

- 5 years design life(25°C)
- Special exhaust structure and sealing technology, safe and reliable, flexible installation, convenient maintenance
- PbCaSn alloy for plate grids: less gassing, less self-discharging
- High quality AGM separator: extend cycle life and prevent micro short circuit
- High purity raw material: ensure low self discharge rate

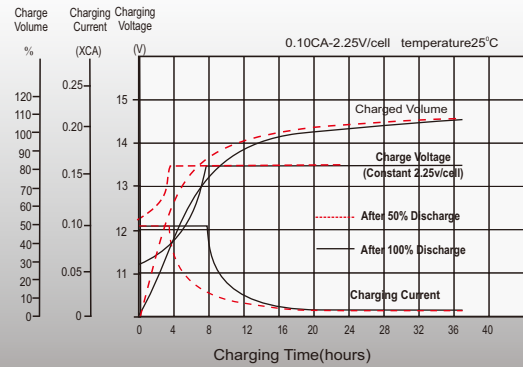
## Standards

- Compliance with IEC 60896 standards, EU Battery Directive

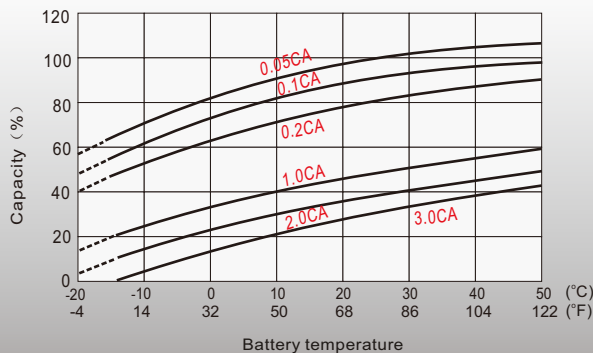
### Discharge Characteristics



### Float Charging Characteristics



### Temperature Effects in Relation to Battery Capacity



### Float Service Life

