

USF SERIES-Front Terminal

USF12-100H(12V100AH)

Specification

Nominal Voltage	12V	
Nominal Capacity(10HR)	100.0AH	
Dimension	Length	394±2mm (15.5 inches)
	Width	110±2mm (4.33 inches)
	Container Height	285±2mm (11.2 inches)
	Total Height (with Terminal)	285±2mm (11.2 inches)
Approx Weight	Approx 34.5 Kg (76.1 lbs)	
Terminal	T6	
Container Material	ABS	
Rated Capacity	106.0 AH/5.30A	(20hr, 1.80V/cell, 25°C/77°F)
	100.0 AH/10.0A	(10hr, 1.80V/cell, 25°C/77°F)
	95.2 AH/11.9A	(8hr, 1.80V/cell, 25°C/77°F)
	87.0 AH/17.4A	(5hr, 1.75V/cell, 25°C/77°F)
	64.4 AH/64.4A	(1hr, 1.67V/cell, 25°C/77°F)
Max. Discharge Current	1000A (5s)	
Internal Resistance	Approx 4.3mΩ	
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)	
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	UPLUS USF 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.	



Applications

- ◆ For standard 19 inches or 23 inches power cabinets
- ◆ Network connection equipment of communication system
- ◆ Power system of special network or local area network
- ◆ UPS, standby power supply
- ◆ Power station systems
- ◆ Railway and marine systems



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

F.V/Time	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	144.6	127.2	114.0	91.6	71.1	58.2	34.0	24.8	19.9	16.7	14.5	11.5	9.56	5.07
1.80V/cell	168.0	146.8	127.2	99.6	75.3	60.9	35.2	25.7	20.5	17.2	14.8	11.9	10.0	5.30
1.75V/cell	185.4	158.0	135.6	103.2	77.6	62.7	36.0	26.1	20.8	17.4	15.1	12.1	10.1	5.35
1.70V/cell	197.4	165.6	141.0	106.4	79.2	63.7	36.5	26.5	21.1	17.6	15.3	12.2	10.2	5.38
1.67V/cell	206.4	171.2	144.0	108.8	80.8	64.4	37.0	26.7	21.3	17.8	15.4	12.3	10.3	5.41
1.60V/cell	215.4	176.0	148.2	111.4	82.4	65.0	37.4	27.0	21.5	18.1	15.6	12.5	10.4	5.44

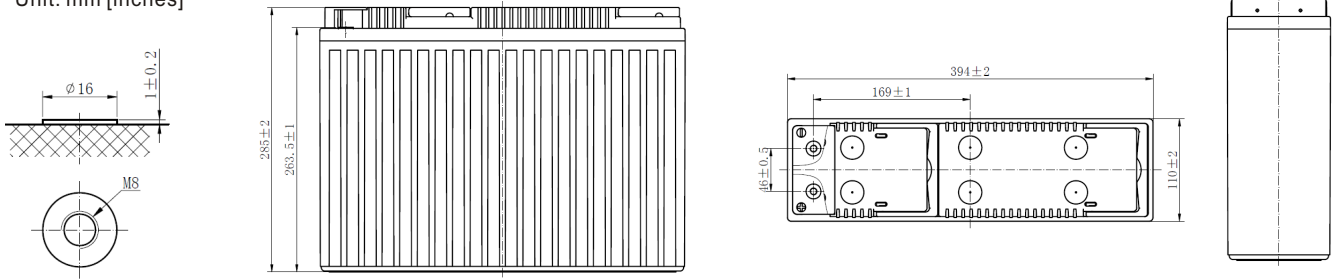
Constant Power Discharge (Watts) at 25 °C (77°F)

F.V/Time	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	270.0	239.9	217.2	176.4	138.0	113.4	66.6	48.9	39.3	33.1	28.7	22.9	19.1	10.14
1.80V/cell	310.0	273.2	238.8	188.9	145.2	118.1	68.5	50.4	40.3	33.9	29.3	23.6	20.0	10.58
1.75V/cell	336.7	290.5	252.1	194.2	148.1	121.0	69.8	51.0	40.7	34.2	29.7	23.9	20.2	10.67
1.70V/cell	350.5	300.2	260.2	199.1	150.6	122.5	70.6	51.6	41.2	34.4	30.0	24.2	20.3	10.73
1.67V/cell	365.1	309.1	264.7	203.1	153.2	123.5	71.5	51.9	41.5	34.8	30.2	24.4	20.5	10.78
1.60V/cell	370.4	311.5	268.6	205.3	154.5	124.4	71.7	52.2	41.7	35.2	30.6	24.6	20.7	10.82

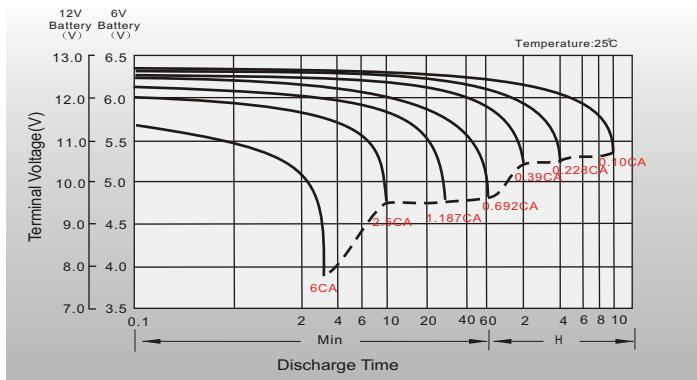
Dimensions

T6 Terminal

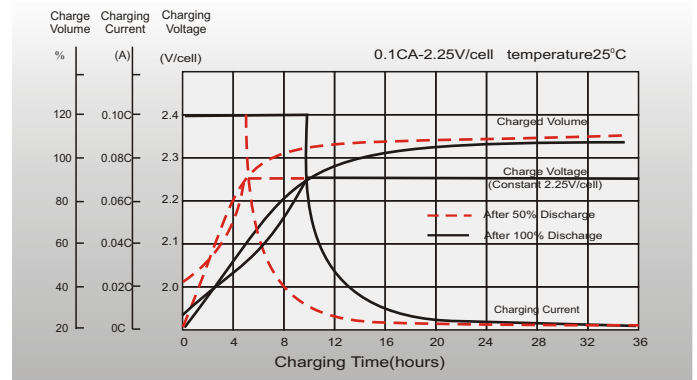
Unit: mm [inches]



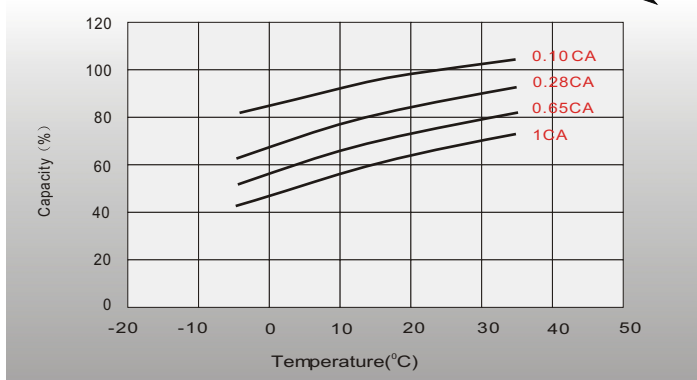
Discharge Characteristics



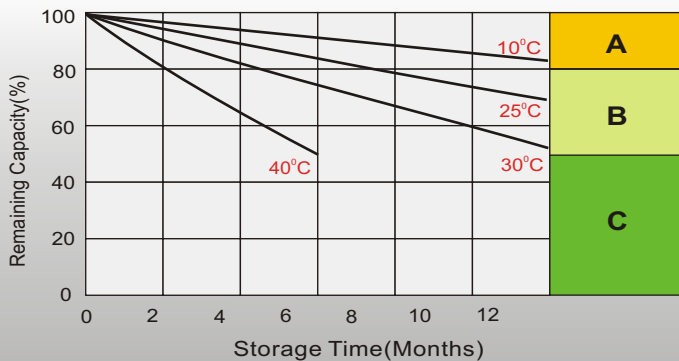
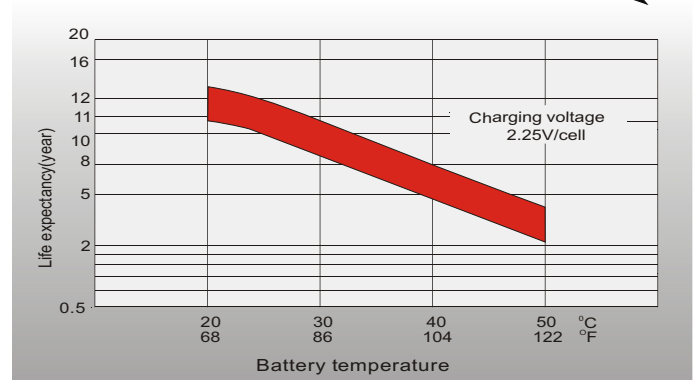
Float Charging Characteristics



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.