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# UPS12540 ▶

UPS 12540 is specially designed for high efficient discharge application. Its characteristics are high energy density, small footprint and high discharge efficiency. It can be used for more than 260 cycles at 100% discharge in cycle service, up to 5 years in standby service.



## ► Specification

<b>Cells Per Unit</b>	6
<b>Voltage Per Unit</b>	12
<b>Capacity</b>	540W @ 5min-rate to Watt(1.60V)/pcs @25 °C (77°F) 10.5 Ah @ 20hr-rate to 1.75V per pcs @25 °C (77°F)
<b>Weight</b>	Approx. 2.75 kg(6.06 lbs)
<b>Maximum Discharge Current</b>	130A(5sec)
<b>Internal Resistance</b>	Approx. 12.5mΩ
<b>Operating Temperature Range</b>	Discharge: -15°C~50°C ( 5°F~122°F) Charge: -15 °C~40°C ( 5°F~104°F) Storage: -15°C~40°C ( 5°F~104°F)
<b>Nominal Operating Temperature Range</b>	25°C±3°C(77°F±5°F)
<b>Float Charging Voltage</b>	13.5 to 13.8 VDC/unit Average at 25°C (77°F)
<b>Recommended Maximum Charging</b>	4.83A
<b>Current Limit</b>	
<b>Equalization and Cycle Service</b>	14.4 to 15.0 VDC/unit Average at 25°C (77°F)
<b>Self Discharge</b>	CSB Batteries can be stored for more than 6 months at 25°C (77°F). Please charge batteries before using. For higher temperatures the time interval will be shorter.
<b>Terminal</b>	F2-Faston Tab 250
<b>Container Material</b>	ABS(UL 94-HB/File E50263)*Flammability resistance of (UL 94-V0/File E88637) can be available upon request.

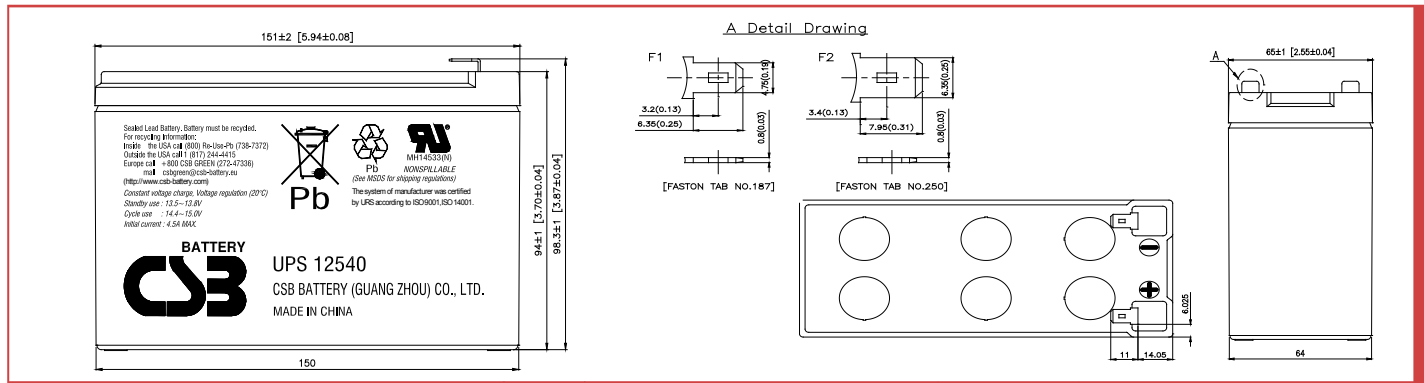


CSB-manufactured VRLA batteries are UL-recognized components under UL924 and UL1989.

CSB is also certified by ISO 9001 and ISO 14001.

## ► Dimensions :

Unit: mm (inch)	Overall Height (H)	Container height (h)	Length (L)	Width (W)
	101.2±1 (3.98±0.04)	94±1 (3.7±0.04)	151±2.0 (5.94±0.08)	65±1 (2.56±0.04)



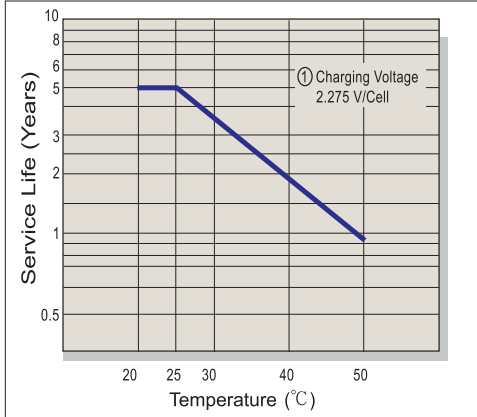
## Constant Current Discharge Characteristics Unit:A (25°C ,77°F)

F.V/Time	2MIN	3MIN	4MIN	5MIN	6MIN	7MIN	8MIN	10MIN	15MIN	20MIN	30MIN	60MIN	90MIN
1.60V	84.4	68.1	57.4	50.0	44.7	40.1	36.2	30.6	22.2	17.5	12.5	7.10	5.10
1.67V	78.6	64.5	54.5	48.2	43.7	38.9	35.4	30.0	22.0	17.4	12.4	7.09	5.08
1.70V	75.3	62.0	52.8	46.9	42.5	38.0	34.7	29.6	21.7	17.3	12.3	7.05	5.06
1.75V	68.5	57.2	49.3	44.4	40.1	36.3	33.1	28.6	21.4	16.9	12.2	6.99	4.99
1.80V	61.8	51.6	45.6	41.0	37.1	33.9	30.9	27.0	20.3	16.2	11.9	6.80	4.88
1.85V	52.4	45.7	41.2	36.7	33.6	30.7	28.1	24.7	18.7	15.1	11.1	6.47	4.66

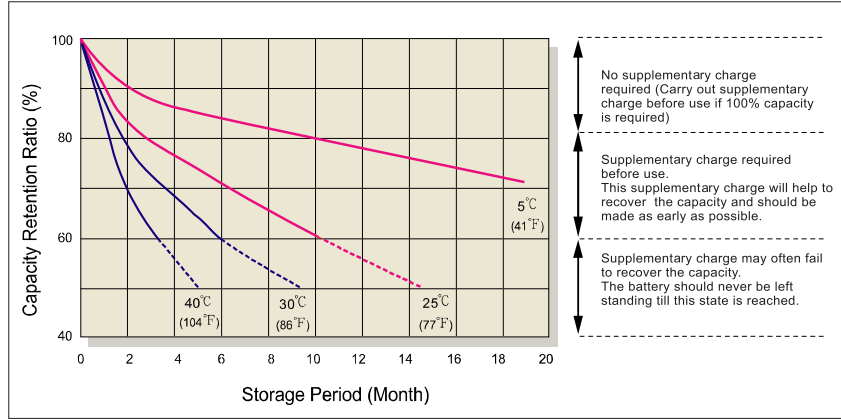
## Constant Power Discharge Characteristics Unit:W (25°C ,77°F)

F.V/Time	2MIN	3MIN	4MIN	5MIN	6MIN	7MIN	8MIN	10MIN	15MIN	20MIN	30MIN	60MIN	90MIN
1.60V	875	724	611	540	483	428	390	334	254	199	144	83.2	60.0
1.67V	812	677	586	529	466	419	381	331	251	198	143	82.8	59.5
1.70V	789	658	574	518	462	412	376	327	248	197	142	82.1	59.0
1.75V	744	613	550	487	438	395	361	315	242	192	141	81.5	58.5
1.80V	665	568	512	449	407	370	342	301	233	186	139	79.1	58.2
1.85V	587	524	459	411	373	344	317	280	214	175	132	76.2	55.6

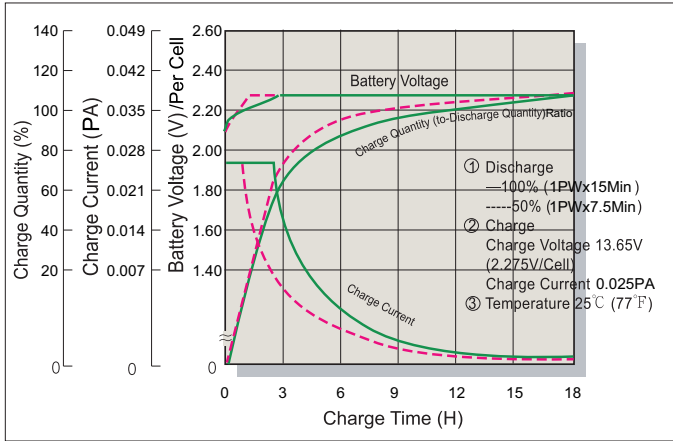
## Trickle (or Float) Service Life



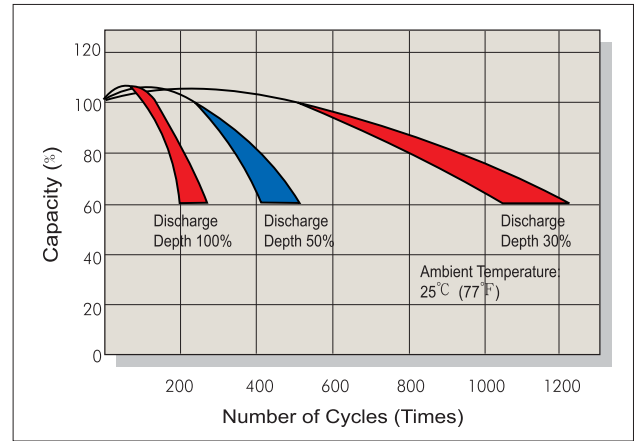
## Capacity Retention Characteristic



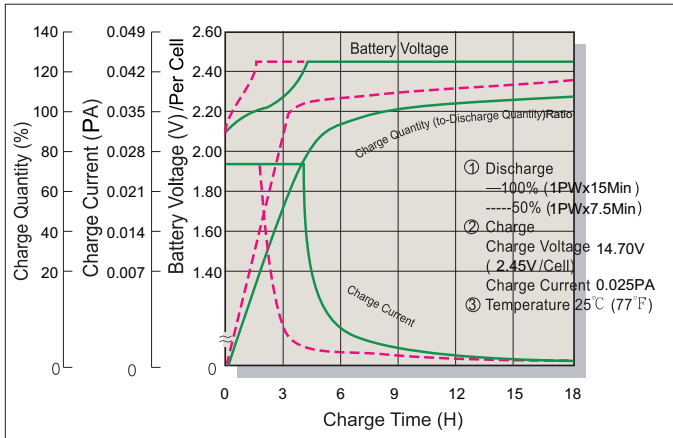
## Battery Voltage and Charge Time for Standby Use



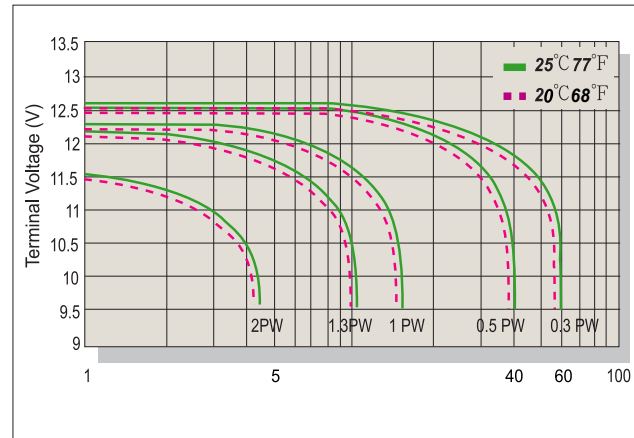
## Cycle Service Life



## Battery Voltage and Charge Time for Cycle Use



## Terminal Voltage (V) and Discharge Time



## Charging Procedures

Application	Charge Voltage(V/Cell)			Max.Charge Current
	Temperature	Set Point	Allowable Range	
Cycle Use	25°C(77°F)	2.45	2.40~2.50	0.1PA
Standby	25°C(77°F)	2.275	2.25~2.30	

## Discharge Current VS. Discharge Voltage

Final Discharge Voltage V/Cell	1.75	1.70	1.60	1.30
Discharge Power(W)	0.1P>(W)	0.1P≤(W)<0.25P	0.25P≤(W)<1.0P	(W)≥1.0P

P: For single cell wattage at 15 minute rate to 1.67V per cell.

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