



# Valve Regulated Lead-Acid Rechargeable Battery

## BP4.5-12RT

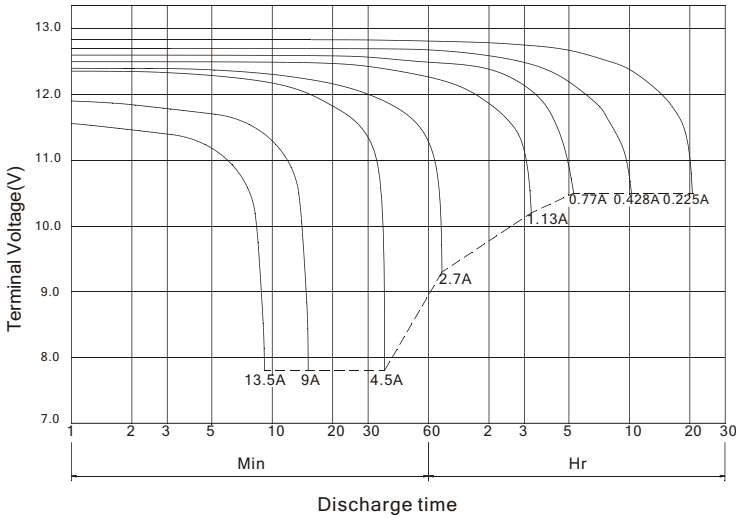


The battery is constructed by plates, separators, safety valves and container. Since the electrolyte is held by a glass-mat separator and plates, the battery can be used in any direction and position without leakage.

### PERFORMANCE SPECIFICATIONS

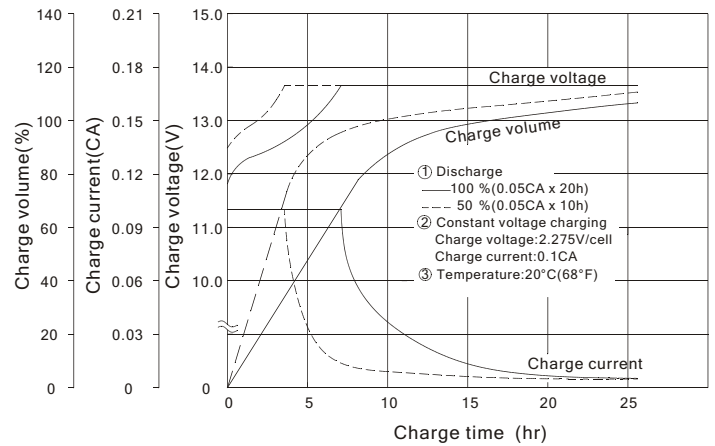
Nominal Voltage(V).....	12 volts(6cells in series)
Nominal Capacity(Ah)	
20 hour rate F.V.(1.75V/cell) (225mA to 10.50volts) .....	4.50Ah
10 hour rate F.V.(1.75V/cell) (428mA to 10.50volts) .....	4.28Ah
5 hour rate F.V.(1.75V/cell) (765mA to 10.50volts) .....	3.83Ah
1 hour rate F.V.(1.55V/cell) (2700mA to 9.30volts) .....	2.70Ah
Approximate Weight.....	1780g(3.92lbs.)
Terminal	
Standard.....	Type ⊕T2, ⊖T1.
Internal Resistance (Fully Charged Battery).....	<27mΩ
Maximum Discharge Current For 5 sec.(A).....	67.5 A
Maximum Charge Current(A).....	1.35 A
Ambient Temperature	
Charge.....	0 °C(32°F)~40°C(104°F)
Discharge.....	-20°C(-4°F)~50°C(122°F)
Storage.....	-20°C(-4°F)~40°C(104°F)
Vibration test	
Frequency: 16.7Hz	
Amplitude: 4mm	
Vibrate the battery horizontally or vertically for 60 minutes. The battery have no abnormality.	
Case.....	ABS
Dimension(mm/inch)	
Length           ±1.5mm.....	140/5.51
Width           ±1.5mm.....	48/1.89
Container Height ±1.5mm.....	102/4.02
Total Height   ±1.5mm.....	104/4.09
Application.....	UPS.

## BP4.5-12RT Battery discharge characteristics (25°C/77°F)



## Battery Charging Characteristics

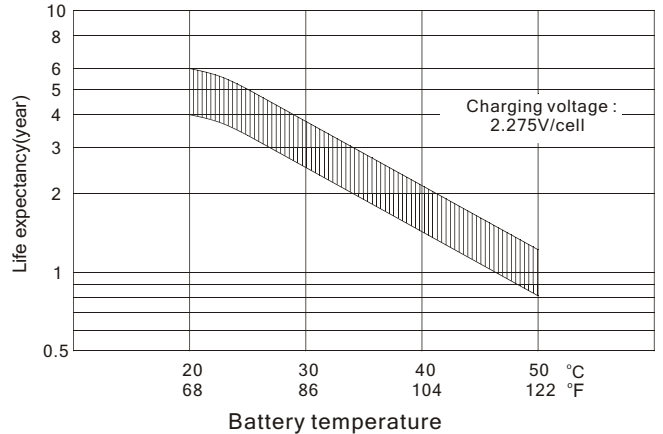
(Typical example of the charge characteristics for the standby use)



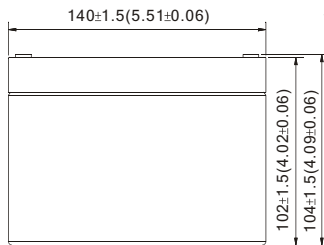
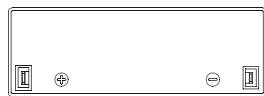
## Charging Procedure

Application	Charging method	Charging Voltage at 20°C (V/cell)	Temperature compensation coefficient of charging voltage (mV/°C/cell)	Max. charging current (CA)	Charging time 0.1CA, 20°C (h)		Temp (°C)
					100% discharge	50% discharge	
For standby power Source	Constant voltage & Constant current charging (with current restriction)	2.25~2.30	-3	0.3	24	20	0~40 (32~104°F)
For cycle service		2.40~2.50	-4	0.3	16	10	

## Effect of Temperature on Long Term Float Life



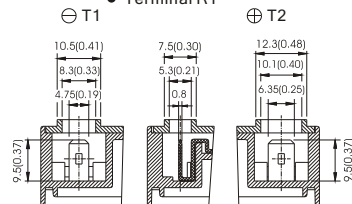
## OUTER DIMENSIONS



## TERMINAL TYPE

mm(inch)

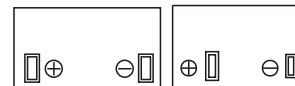
• Terminal RT



## Constant power discharge characteristics at 25°C/77°F

Final Voltage	Discharge time								
	5Min	10Min	15Min	30Min	1Hr	3Hr	5Hr	10Hr	20Hr
10.80V	162.7	119.8	96.0	57.1	32.75	13.12	9.04	5.05	2.66
10.50V	188.3	129.8	100.4	59.3	33.73	13.38	9.18	5.13	2.70
10.20V	200.1	134.4	103.5	60.6	34.34	13.50	9.23	5.16	2.71
9.90V	209.1	137.6	105.9	61.5	34.75	13.59	9.26	5.17	2.72
9.60V	216.0	140.4	108.0	62.1	35.10	13.68	9.29	5.17	2.72

## TERMINAL POSITION



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