

# PT90-12

12Volt 90Ah

## Specifications

**Nominal Voltage(V)** 12V

### Nominal Capacity

10 hour rate (10A	to	10.80V)	90Ah
5 hour rate (17A	to	10.20V)	76Ah
1 hour rate (60A	to	9.60V)	54Ah

**Weight** Approx. 28kg(61.6Lbs.)

**Internal Resistance (at 1KHz)** Approx. 4mΩ

### Maximum Discharge Current for

**5 seconds:** 1200A

### Charging Methods at 25°C (77°F)

#### Cycle use:

Charging Voltage 14.4 to 15.0V

Coefficient -5.0mV/°C/cell

Maximum Charging Current : 27A

#### Standby use:

Float Charging Voltage 13.5 to 13.8V

Coefficient -3.0mV/°C/cell

### Operating Temperature Range

Charge -15°C (5°F) to 40°C (104°F)

Discharge -15°C (5°F) to 50°C (122°F)

Storage -15°C (5°F) to 40°C (104°F)

**Design Life** 12 years

### Charge Retention (shelf life) at 20°C (68°F)

1 month 98%

3 month 94%

6 month 85%

**Case Material** ABS UL94 HB

Option: Flammability resistance of (UL94 V-0)

**Terminal** F18

### Description of torque value of hard ware for the terminals:

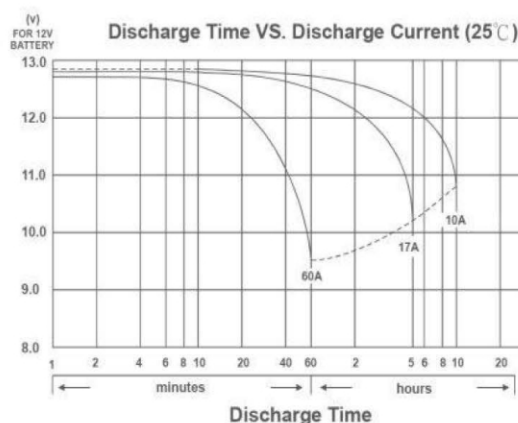
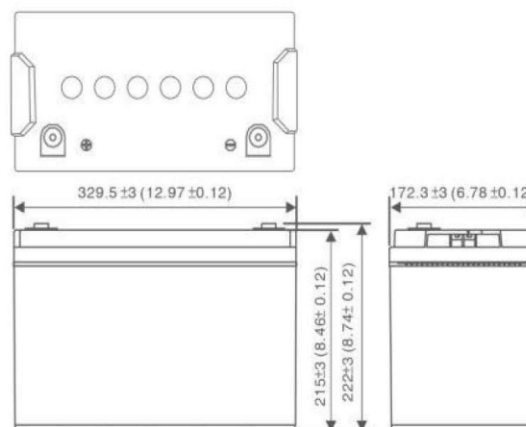
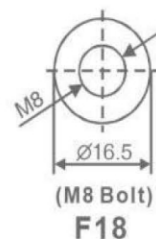
Recommended torque value **M8: 7 N-m (71kgf-cm)**

Maximum allowable torque value **M8: 9 N-m (92kgf-cm)**

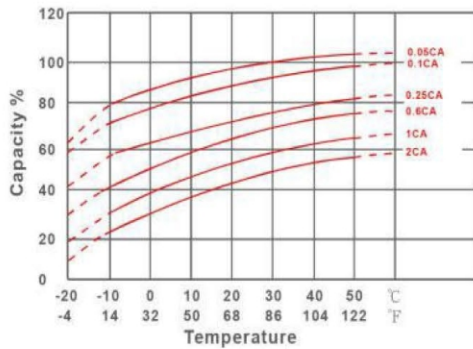


## Dimensions

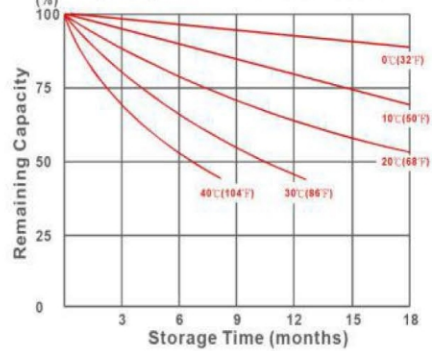
mm(inch)



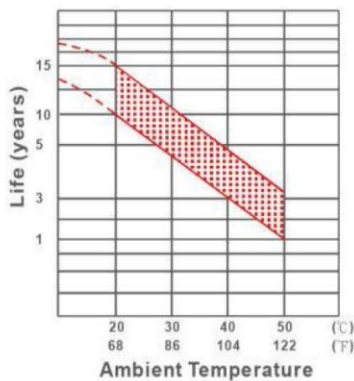
Effect of Temperature on Capacity 25°C (77°F)



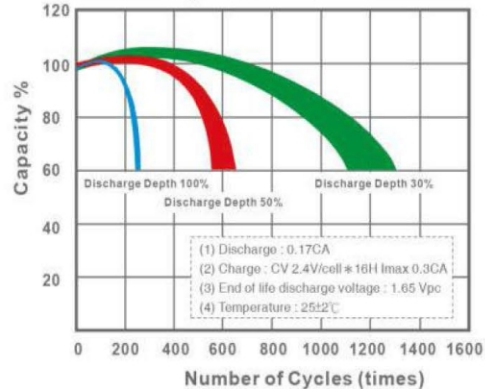
Capacity Retention Characteristic



Trickle (or float) Service Life



Cycle Service Life



**- PERFORMANCE DATA**

Discharge Rates in Watts to Various End Voltages at 25°C (77°F)

End Voltage		1.80V	1.75V	1.70V	1.60V
5	min	442	442	523	612
	min	339	339	390	443
15	min	297	297	338	375
	min	257	257	285	317
30	min	210	210	222	239
	min	129	129	139	147
180	min	52.1	52.1	54.2	57.7
	min	34.3	34.3	36	37.9
600	min	20.5	20.5	20.9	21.4
	min	10.8	10.8	11.1	11.3

- Discharge Rates in Amperes to Various End Voltages at 25°C (77°F)

End Voltage		1.80V	1.75V	1.70V	1.60V
5	min	245	276	304	369
10	min	186	204	222	261
15	min	161	176	188	214
20	min	138	149	156	177
30	min	112	116	120	131
60	min	67.5	70.6	72.8	78
180	min	52.1	57.2	27.9	30.1
300	min	17.4	17.8	18.2	19.4
600	min	10.4	10.5	10.6	10.9
1200	min	5.42	5.47	5.57	5.67

All data on the spec. sheet is an average value:

The tolerance range :  $X < 6\text{min}$ (+15%~-15%),  $6\text{min} \leq X < 10\text{min}$ (+12%~-12%),  $10\text{min} \leq X < 60\text{min}$ (+8%~-8%),  $X \geq 60\text{min}$ (+5%~-5%)