

# PT40-12

12Volt 40Ah

## Specifications

**Nominal Voltage(V)** 12V

### Nominal Capacity

10 hour rate (10A	to	10.80V)	40Ah
5 hour rate (17A	to	10.20V)	36.8Ah
1 hour rate (60A	to	9.60V)	25.6Ah

**Weight** Approx. 11.5kg(25.35Lbs.)

**Internal Resistance (at 1KHz)** Approx. 6mΩ

### Maximum Discharge Current for

5 seconds: 480A

### Charging Methods at 25°C (77° F)

#### Cycle use:

Charging Voltage 14.4 to 15.0V

Coefficient -5.0mV/°C/cell

Maximum Charging Current : 10.8A

#### 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** F11

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

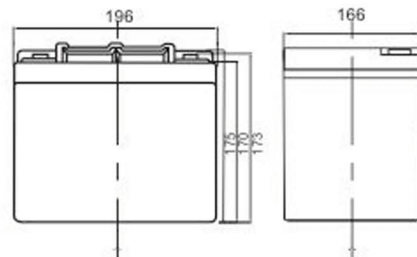
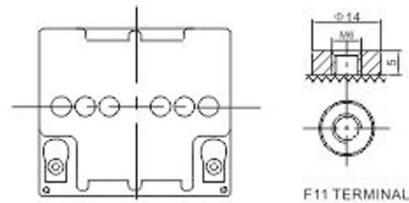
Recommended torque value **M8: 7 N-m (71kgf-cm)**

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

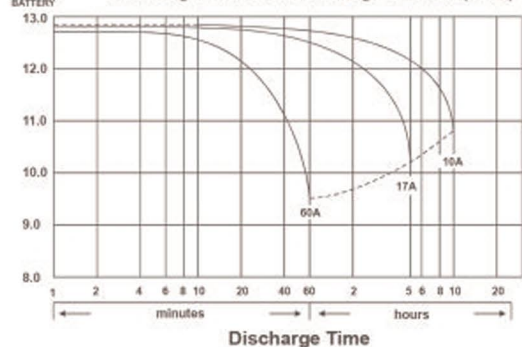


## Dimensions

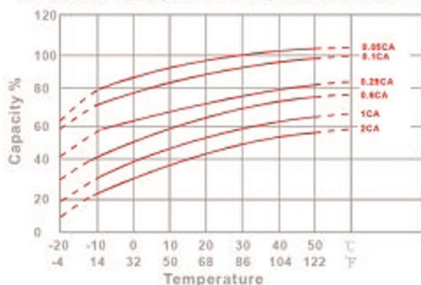
mm(inch)



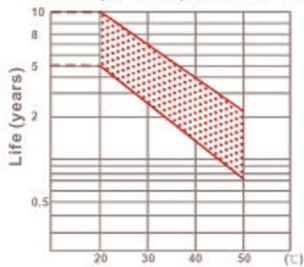
(V) FOR 12V BATTERY Discharge Time VS. Discharge Current (25°C)



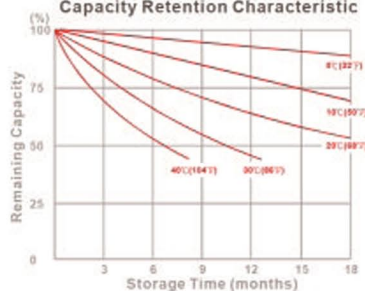
Effect of Temperature on Capacity 25°C (77°F)



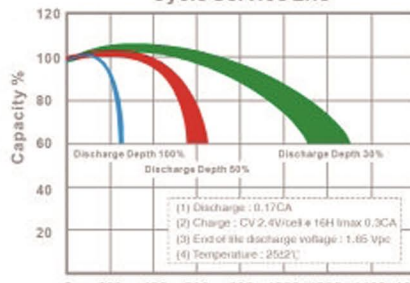
Trickle (or float) Service Life



Capacity Retention Characteristic



Cycle Service Life



Constant Current Discharge Characteristics : A (25°C)

F.V/Time	5MIN	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	115.8	81.06	60.43	34.97	20.52	12.30	9.03	7.33	6.19	4.14	3.52	1.80
1.65V	111.6	78.65	58.85	34.20	20.14	12.12	8.91	7.24	6.12	4.09	3.48	1.79
1.70V	106.2	75.48	56.77	33.19	19.64	11.88	8.75	7.12	6.02	4.04	3.44	1.77
1.75V	99.17	71.38	54.06	31.86	18.98	11.56	8.54	6.96	5.90	3.96	3.38	1.74
1.80V	90.36	66.14	50.57	30.14	18.11	11.14	8.26	6.75	5.73	3.87	3.30	1.71
1.85V	79.52	59.59	46.17	27.94	17.00	10.60	7.89	6.47	5.51	3.74	3.20	1.67

Constant Power Discharge Characteristics : WPC (25°C)

F.V/Time	5MIN	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	199.3	139.9	107.2	64.47	38.95	23.65	17.50	14.29	12.11	8.20	7.02	3.61
1.65V	197.2	139.3	106.6	64.00	38.63	23.48	17.38	14.19	12.03	8.14	6.97	3.58
1.70V	189.7	135.2	103.7	62.45	37.80	23.08	17.11	13.98	11.87	8.04	6.88	3.55
1.75V	180.4	130.1	100.2	60.57	36.71	22.57	16.76	13.72	11.66	7.91	6.77	3.50
1.80V	167.2	122.7	95.09	57.87	35.20	21.87	16.28	13.35	11.37	7.73	6.62	3.44
1.85V	149.8	112.5	88.05	54.18	33.27	20.92	15.63	12.84	10.97	7.49	6.42	3.35

(Note) The above characteristics data are average values obtained within three charge/discharge cycle not the minimum values.