

### Specification

Nominal Voltage	12V
Watts(15min Rate)	99.8 Watts at 1.67V/cell
Dimension	Length 166 ± 2mm (6.54 inches)
	Width 175 ± 2mm (6.89 inches)
	Container Height 125 ± 2mm (4.92 inches)
	Total Height (with Terminal) 125 ± 2mm (4.92 inches)
Approx Weight	Approx 8.6 kg (19.0lbs)
Terminal	T12
Container Material	ABS
Rated Capacity	25.5 AH/2.55A (10hr, 1.80V/cell, 25°C/77°F)
	24.0 AH/3.00A (8hr, 1.80V/cell, 25°C/77°F)
	21.8 AH/4.37A (5hr, 1.75V/cell, 25°C/77°F)
	19.3 AH/6.43A (3hr, 1.75V/cell, 25°C/77°F)
	16.9 AH/16.9A (1hr, 1.60V/cell, 25°C/77°F)
Max. Discharge Current	360A (5s)
Internal Resistance	Approx 12mΩ
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 7.2A. Voltage 14.4V~15.0V at 25°C(77°F)Temp. Coefficient -30mV/°C
	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	HP 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

- ◆ UPS (High rate)
- ◆ High power backup supply
- ◆ Emergency power supply
- ◆ Starting system
- ◆ Power tools
- ◆ Emergency lighting
- ◆ Electric starting

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

F.V/Time	5min	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	63.9	47.1	40.0	33.3	24.3	17.6	13.9	7.96	5.83	4.71	4.00	3.51	2.87	2.42	1.41
1.80V/cell	74.6	52.8	43.9	35.6	25.8	18.5	14.6	8.40	6.18	4.96	4.20	3.68	3.00	2.52	1.43
1.75V/cell	84.2	58.2	47.9	38.7	27.4	19.6	15.4	8.81	6.43	5.17	4.37	3.79	3.08	2.58	1.45
1.70V/cell	92.7	62.8	51.2	40.9	28.7	20.4	16.0	9.11	6.64	5.32	4.47	3.90	3.14	2.62	1.47
1.67V/cell	100.5	67.1	54.0	42.6	30.0	21.1	16.5	9.38	6.80	5.42	4.56	3.95	3.18	2.66	1.48
1.60V/cell	105.7	70.3	55.8	44.0	30.9	21.6	16.9	9.55	6.91	5.52	4.65	4.03	3.22	2.70	1.49

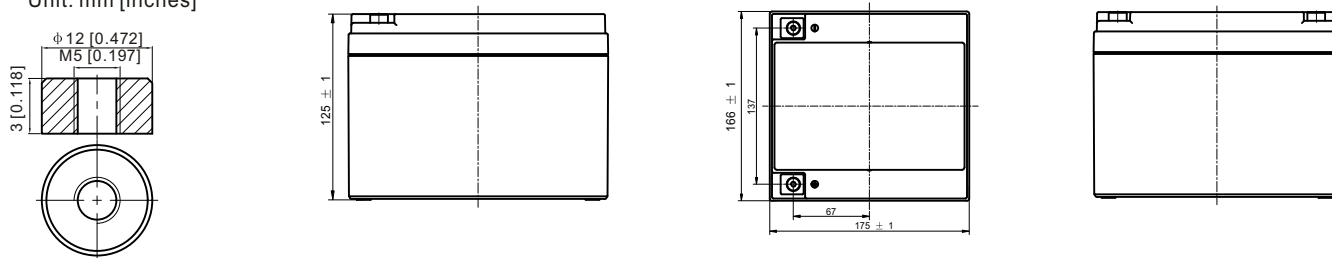
### Constant Power Discharge (Watts/cell) at 25 °C (77°F)

F.V/Time	5min	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	118.8	88.4	75.8	63.6	46.8	34.1	27.1	15.6	11.5	9.35	7.98	7.02	5.76	4.87	2.84
1.80V/cell	137.3	98.5	82.8	67.8	49.5	35.8	28.3	16.4	12.2	9.82	8.34	7.35	6.01	5.06	2.88
1.75V/cell	153.2	107.6	89.9	73.3	52.3	37.6	29.8	17.2	12.6	10.2	8.67	7.55	6.15	5.17	2.91
1.70V/cell	166.8	115.1	95.4	77.1	54.6	39.0	30.9	17.7	13.0	10.5	8.84	7.74	6.25	5.23	2.94
1.67V/cell	178.9	121.9	99.8	79.8	56.7	40.2	31.8	18.2	13.3	10.6	8.99	7.82	6.32	5.29	2.95
1.60V/cell	185.0	126.1	102.1	81.7	58.0	41.0	32.5	18.5	13.5	10.8	9.13	7.94	6.38	5.35	2.97

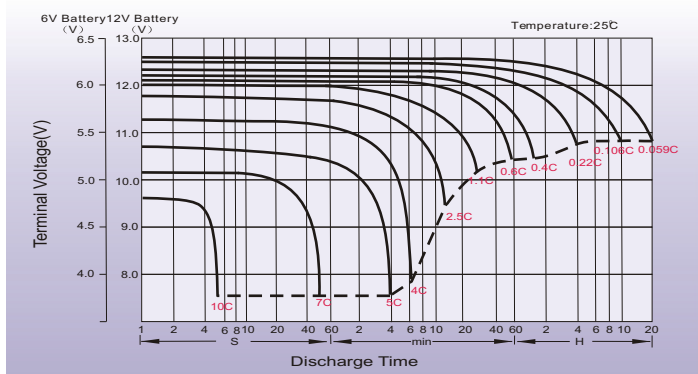
# Dimensions

## T12 Terminal

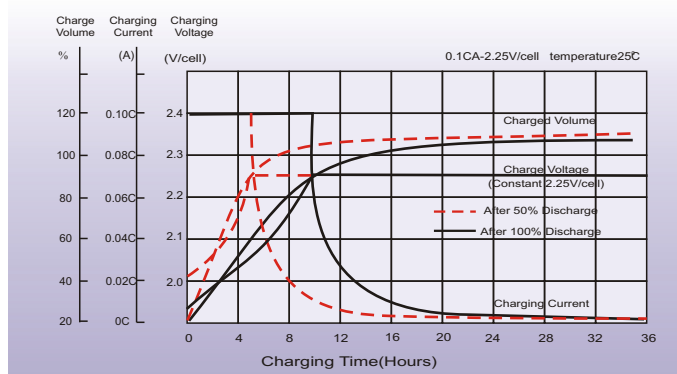
Unit: mm [inches]



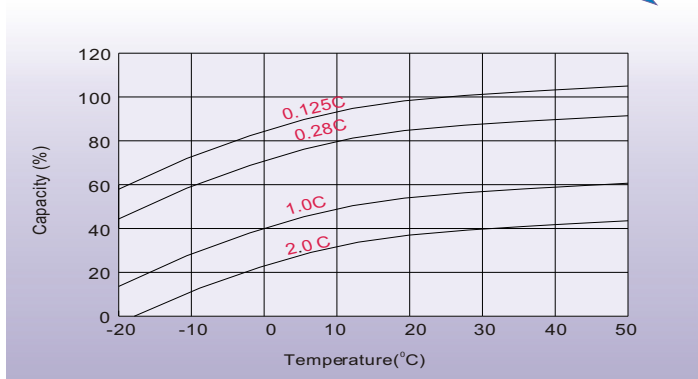
## Discharge Characteristics



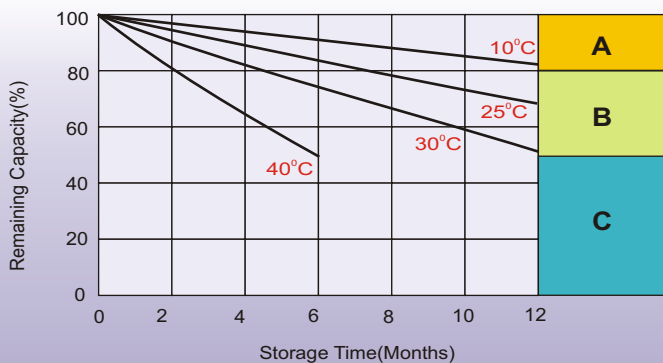
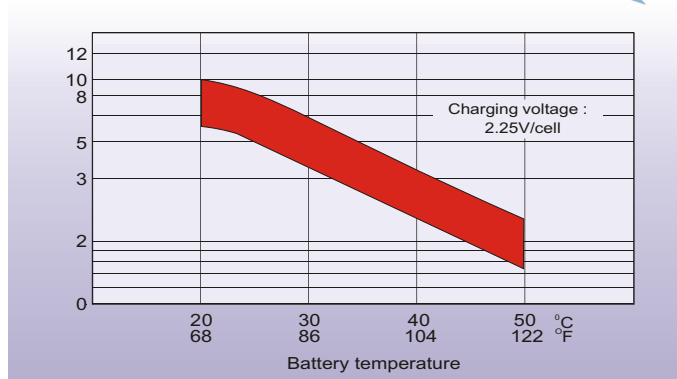
## Float Charging Characteristics



## 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 voltage 2.25V/cell.
  2. Charged for above 20 hours at limited current 0.25CA and constant voltage 2.45V/cell.
  3. Charged for 8-10 hours 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.