



12V 7Ah F2



Specification

Nominal Voltage	12V	
Nominal Capacity(20HR)	7.0AH	
Dimension	Length	151±1mm (5.95 inches)
	Width	65±1mm (2.56 inches)
	Container Height	94.5±1mm (3.72 inches)
	Total Height (with Terminal)	100±1mm (3.94 inches)
Approx Weight	Approx 2.0 kg (4.4lbs)	
Terminal	T1 / T2	
Container Material	ABS	
Rated Capacity	7.00 AH/0.350A	(20hr , 1.75V/cell, 25°C/77°F)
	6.51 AH/0.651A	(10hr, 1.75V/cell, 25°C/77°F)
	5.97 AH/1.194A	(5hr, 1.75V/cell, 25°C/77°F)
	5.32 AH/1.773A	(3hr, 1.75V/cell, 25°C/77°F)
	4.20 AH/4.200A	(1hr, 1.75V/cell, 25°C/77°F)
Max. Discharge Current	105A (5s)	
Internal Resistance	Approx 24mΩ	
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 2.1A.Voltage 14.4V~15.0V at 25°C(77°F)Temp. Coefficient -30mV/°C	
Standby Use	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	batterys 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

- ◆ All purpose
- ◆ Uninterruptable Power Supply (UPS)
- ◆ Electric Power System (EPS)
- ◆ Emergency backup power supply
- ◆ Emergency light
- ◆ Railway signal
- ◆ Aircraft signal
- ◆ Alarm and security system
- ◆ Electronic apparatus and equipment
- ◆ Communication power supply
- ◆ DC power supply
- ◆ Auto controlsystem

ISO 9001	ISO 14001	OHSAS 18001	TLC
CE	RoHS	UL	PV Battery

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

F.V/Ti	5min	10min	15min	30min	1h	3h	5h	10h	20h
1.80V/cell	20.856	14.601	11.364	7.210	4.040	1.715	1.168	0.640	0.345
1.75V/cell	21.459	15.128	11.593	7.350	4.200	1.773	1.194	0.651	0.350
1.70V/cell	22.946	16.047	12.052	7.455	4.217	1.791	1.213	0.665	0.359
1.65V/cell	23.566	16.370	12.358	7.525	4.238	1.818	1.236	0.681	0.371
1.60V/cell	24.780	17.017	12.740	7.700	4.267	1.862	1.278	0.710	0.385

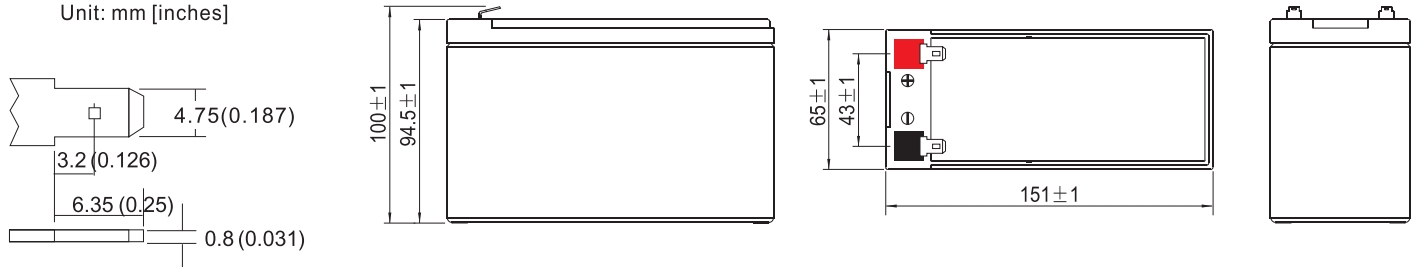
Constant Power Discharge (Watts) at 25 °C (77°F)

F.V/Ti	5min	10min	15min	30min	1h	3h	5h	10h	20h
1.80V/cell	37.192	26.442	20.770	13.382	7.527	3.215	2.216	1.257	0.681
1.75V/cell	38.870	27.624	21.584	13.811	7.904	3.352	2.286	1.289	0.696
1.70V/cell	42.072	29.655	22.621	14.127	8.050	3.433	2.351	1.332	0.719
1.65V/cell	43.451	30.465	23.518	14.418	7.713	3.519	2.418	1.382	0.756
1.60V/cell	45.896	31.907	24.397	14.876	8.314	3.635	2.517	1.455	0.795

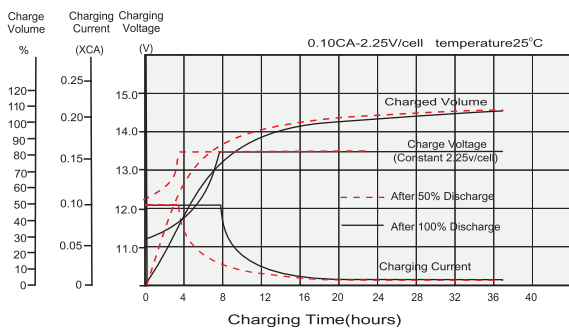
Note The above data are average values, and can be obtained with 3 charge/discharge cycles. These are not minimum values.

Dimensions

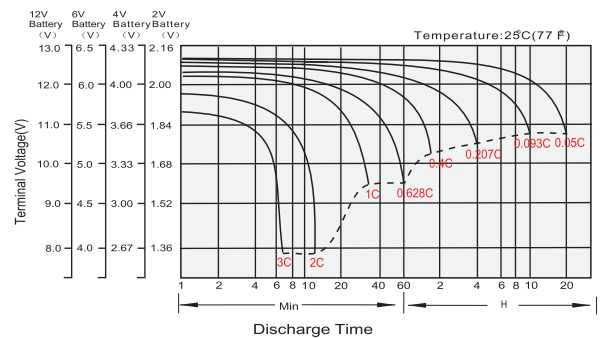
T1 Terminal Unit: mm [inches]



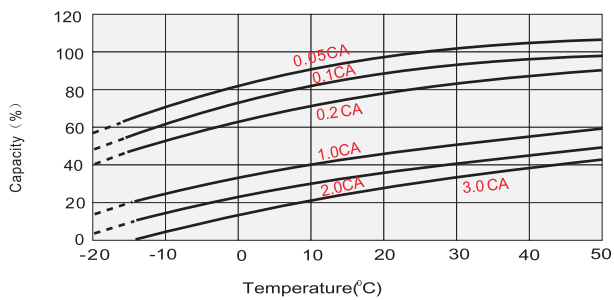
Float Charging Characteristics



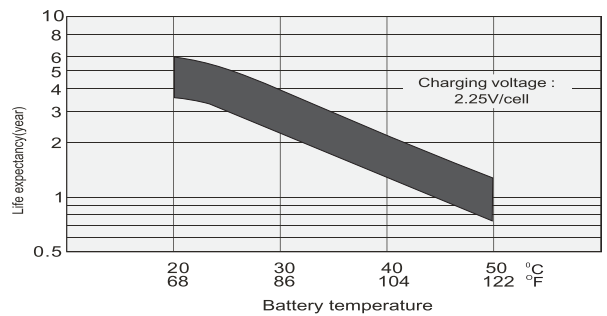
Discharge Characteristics



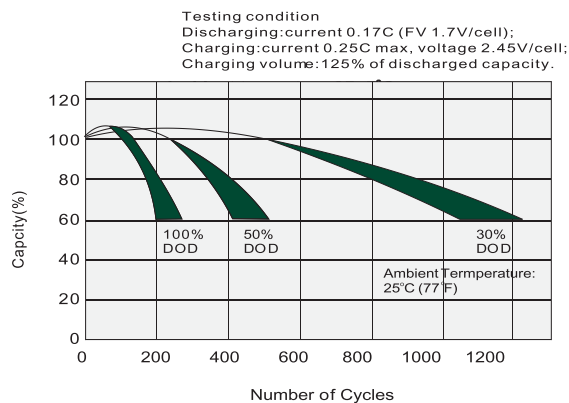
Temperature Effects in Relation to Battery Capacity



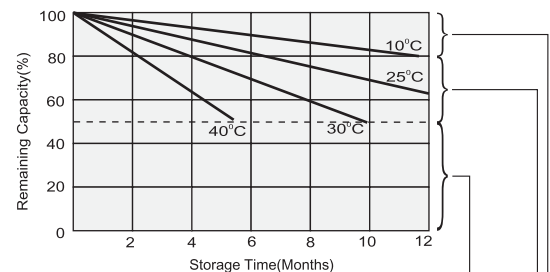
Effect of Temperature on Long Term Float Life



Cycle Life in Relation to Depth of Discharge



Self Discharge Characteristics



Supplementary charge may often fail to recover the capacity. The battery should never be left standing till this is reached.

Supplemental charge required before use. Optimal charging way as below:
1. Charged for a above 3 days at limited current 0.25CA and constant voltage 2.25V/cell.
2. Charged for a 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.

No supplementary charge required (Carry out supplementary charge before use if 100% capacity is required.)