



Specifications

- ◆ 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		

Specifications

Nominal Voltage	12V	
Nominal Capacity(10HR)	150AH	
Dimension	Length	485±3mm (19.09 inches)
	Width	170±2mm (6.69 inches)
	Container Height	240±2mm (9.45 inches)
	Total Height (with Terminal)	240±2mm (9.45 inches)
Approx Weight	Approx 41.3 kg (91.05 lbs)	
Terminal	T11	
Container Material	ABS	
Rated Capacity	156.0 AH/7.80A	(20hr, 1.80V/cell, 25°C/77°F)
	150.0 AH/15.0A	(10hr, 1.80V/cell, 25°C/77°F)
	129.0 AH/25.8A	(5hr, 1.75V/cell, 25°C/77°F)
	117.0 AH/39.0A	(3hr, 1.75V/cell, 25°C/77°F)
	91.5 AH/91.5A	(1hr, 1.60V/cell, 25°C/77°F)
Max. Discharge Current	1500A (5s)	
Internal Resistance	Approx 3.5 mΩ	
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 45.0A. 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	GP 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.	

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	256.7	201.8	171.6	143.6	114.1	86.4	70.7	45.0	35.6	29.1	23.5	20.4	16.6	14.2	7.73
1.80V/cell	344.6	257.9	207.4	169.7	134.6	100.4	79.2	49.2	38.3	31.1	25.2	21.9	17.6	15.0	7.80
1.75V/cell	388.5	283.4	226.5	182.6	139.8	104.2	82.9	51.0	39.0	31.8	25.8	22.5	17.9	15.1	7.88
1.70V/cell	427.9	308.9	241.8	191.9	145.5	108.4	85.5	53.0	40.1	32.6	26.5	23.0	18.1	15.3	8.03
1.65V/cell	471.8	333.3	257.2	203.8	153.5	111.1	88.4	54.5	41.8	33.7	27.2	23.5	18.4	15.6	8.13
1.60V/cell	520.4	361.9	275.0	217.1	162.0	115.8	91.5	56.3	43.1	34.8	28.1	24.0	18.6	15.8	8.18

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

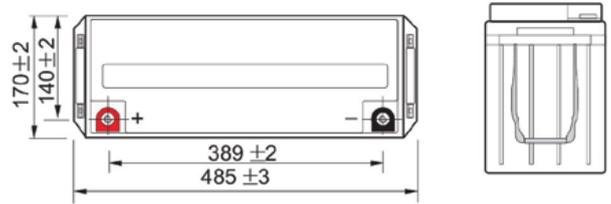
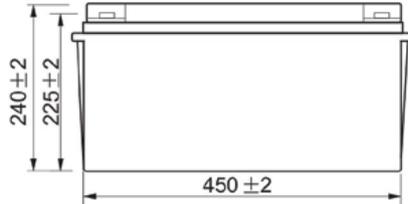
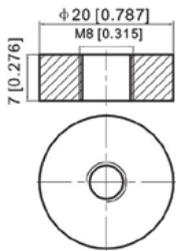
F.V/Time	5min	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	469.4	372.8	320.3	270.6	217.5	166.0	136.4	87.5	69.4	56.9	46.0	40.1	32.7	28.0	15.3
1.80V/cell	623.4	470.8	381.8	315.2	252.7	191.6	152.0	94.8	74.3	60.4	49.1	42.9	34.6	29.6	15.4
1.75V/cell	687.9	509.0	411.9	335.8	260.2	196.9	158.3	98.0	75.4	61.5	50.3	43.9	35.1	29.9	15.6
1.70V/cell	736.5	542.2	433.6	350.3	269.3	204.0	162.7	101.7	77.3	63.0	51.4	44.8	35.6	30.2	15.8
1.65V/cell	800.6	579.8	457.5	369.3	281.8	207.2	167.0	103.9	80.2	65.0	52.7	45.6	36.1	30.7	16.0
1.60V/cell	862.6	615.1	481.2	389.2	295.4	214.8	172.0	106.9	82.3	66.8	54.2	46.5	36.3	31.0	16.1

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

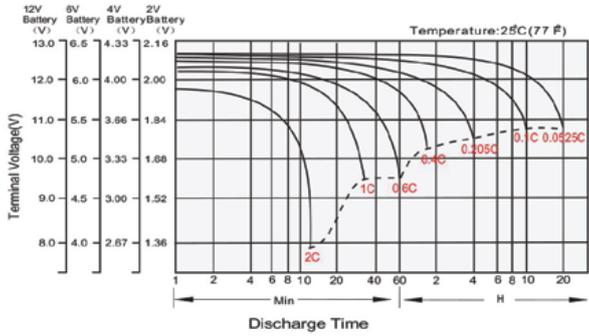
Dimensions

T11 Terminal

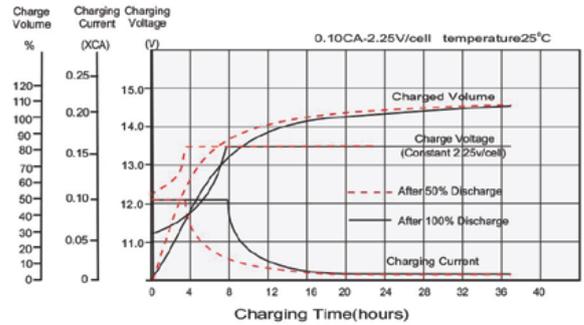
Unit: mm [inches]



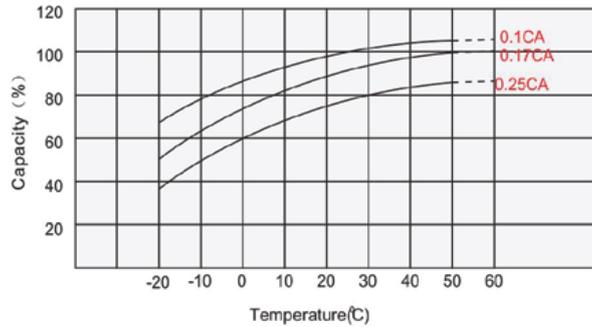
Discharge Characteristics



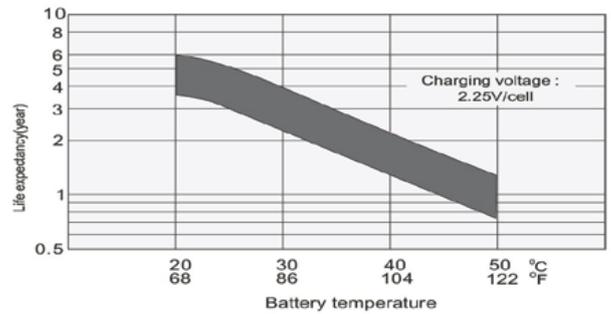
Float Charging Characteristics



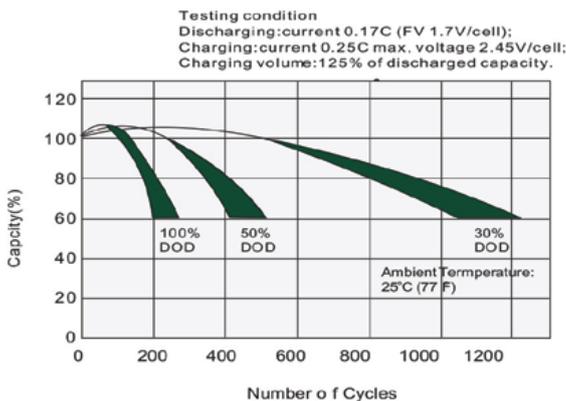
Temperature Effects in Relation to Battery Capacity



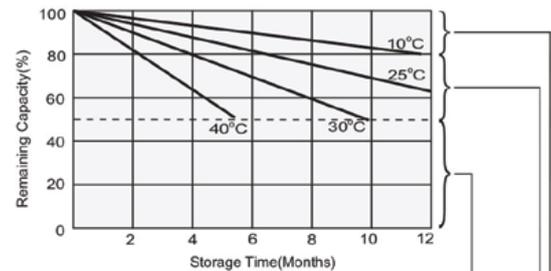
Effect of Temperature on Long Term Float Life



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 until this is reached.

Supplementary charge required before use. Optimal 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.

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