



GP120-12 12V120AH

GP SERIES-VRLA Battery



Specification

Nominal Voltage	12V	
Nominal Capacity(10HR)	120AH	
Dimension	Length	407 ± 3mm (16.0 inches)
	Width	173 ± 2mm (6.81 inches)
	Container Height	208 ± 2mm (8.18 inches)
	Total Height (with Terminal)	233 ± 2mm (9.17 inches)
Approx Weight	Approx 32.0 kg (70.55 lbs)	
Terminal	T11	
Container Material	ABS	
Rated Capacity	127.0 AH/6.35A	(20hr, 1.80V/cell, 25°C/77°F)
	120.0 AH/12.0A	(10hr, 1.75V/cell, 25°C/77°F)
	109.5 AH/21.9A	(5hr, 1.75V/cell, 25°C/77°F)
	96.6 AH/32.2A	(3hr, 1.75V/cell, 25°C/77°F)
	74.7 AH/74.7A	(1hr, 1.60V/cell, 25°C/77°F)
Max. Discharge Current	1440A (5s)	
Internal Resistance	Approx 4.0 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 36.0A. Voltage 14.4V~15.0V at 25°C(77°F) Temp. Coefficient -30mV/°C	
	Standby Use	
Capacity affected by Temperature	No limit on Initial Charging Current Voltage	
	13.5V~13.8V at 25°C(77°F) Temp. Coefficient -20mV/°C	
	40°C (104°F)	103%
Self Discharge	25°C (77°F)	100%
	0°C (32°F)	86%
	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.	

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	10min	15min	30min	1h	3h	5h	10h	20h
1.80V/cell	268.04	200.51	132.91	70.75	31.19	21.45	11.79	6.36
1.75V/cell	277.73	204.55	135.49	73.55	32.26	21.93	12.00	6.45
1.70V/cell	294.60	212.65	137.42	73.84	32.58	22.28	12.25	6.61
1.65V/cell	300.53	218.04	138.71	74.21	33.06	22.70	12.55	6.83
1.60V/cell	312.40	224.78	129.68	74.73	33.87	23.47	13.08	7.09

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

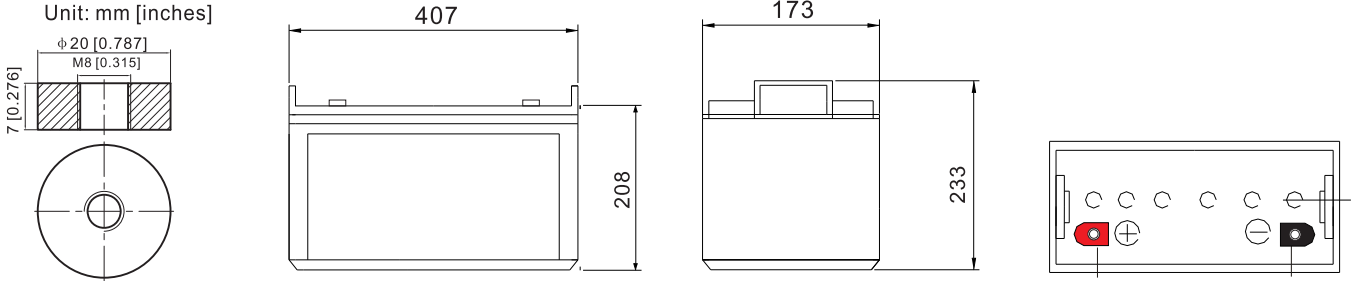
F.V/Ti	10min	15min	30min	1h	3h	5h	10h	20h
1.80V/cell	485.42	370.54	246.68	131.82	58.49	40.70	23.16	12.55
1.75V/cell	507.13	381.50	254.58	138.42	60.97	41.98	23.76	12.83
1.70V/cell	544.41	399.99	260.42	140.97	62.46	43.19	24.55	13.26
1.65V/cell	559.29	414.93	265.78	135.59	64.01	44.41	25.47	13.93
1.60V/cell	585.76	430.46	250.55	145.57	66.12	46.24	26.82	14.65

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

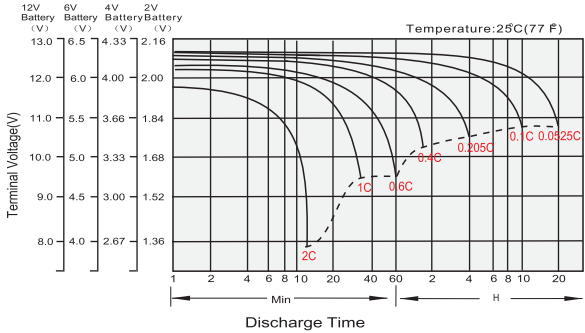
Dimensions

T11 Terminal

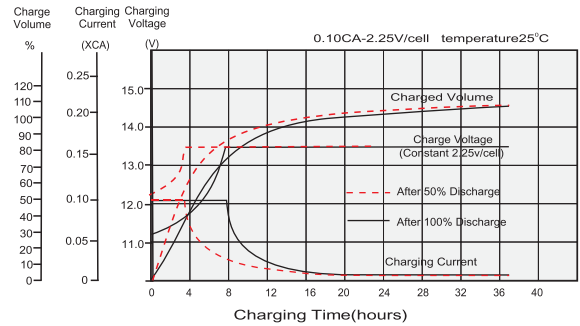
Unit: mm [inches]



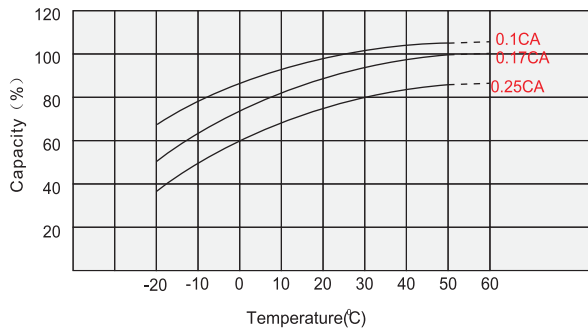
Discharge Characteristics



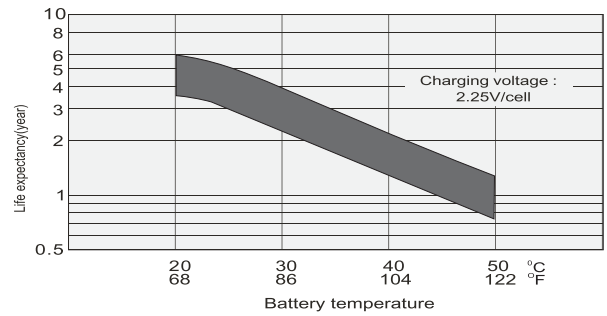
Float Charging Characteristics



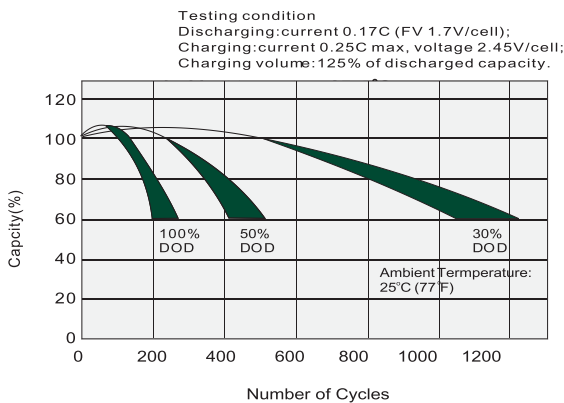
Temperature Effects in Relation to Battery Capacity



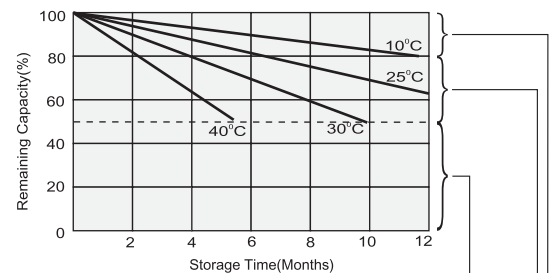
Effect of Temperature on Long Term Float Life



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. Optional 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.)