



Specifications

- ◆ Telecommunications
- ◆ Solar system
- ◆ Wind power system
- ◆ Engine starting
- ◆ Wheelchair
- ◆ Floor cleaning machines
- ◆ Golf trolley
- ◆ Boats

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

Specifications

Nominal Voltage	12V	
Nominal Capacity(10HR)	80.0AH	
Dimension	Length	330±3mm (12.99 inches)
	Width	173±2mm (6.81 inches)
	Container Height	212±2mm (8.35 inches)
	Total Height (with Terminal)	220±2mm (8.66 inches)
Approx Weight	Approx 22.0 Kg (48.5 lbs)	
Terminal	T11	
Container Material	ABS	
Rated Capacity	83.8 AH/4.19A	(20hr, 1.80V/cell, 25°C/77°F)
	80.0 AH/8.00A	(10hr, 1.80V/cell, 25°C/77°F)
	67.0 AH/13.4A	(5hr, 1.75V/cell, 25°C/77°F)
	58.7 AH/19.5A	(3hr, 1.75V/cell, 25°C/77°F)
	46.1 AH/46.1A	(1hr, 1.60V/cell, 25°C/77°F)
Max. Discharge Current	800A (5s)	
Internal Resistance	Approx 6.8 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 20.0 A. Voltage 14.4V~15.0V at 25°C(77°F)Temp. Coefficient -30mV/°C	
	Standby Use	
Capacity affected by Temperature	40°C (104 °F)	103%
	25°C (77 °F)	100%
	0°C (32 °F)	86%
Design LifeSpan	10 years	
Self Discharge	GP series batteries may be stored for up to 9 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	20min	30min	45min	1h	2h	3h	4h	5h	6h	7h	8h	9h	10h	20h
1.85V/cell	71.9	56.4	43.1	36.0	22.9	17.4	14.4	12.5	10.8	9.52	8.59	7.85	7.42	4.08
1.80V/cell	82.4	63.1	47.5	39.8	24.7	18.7	15.3	13.1	11.3	10.0	9.00	8.25	7.75	4.25
1.75V/cell	92.6	69.4	51.3	42.6	26.2	19.7	16.0	13.6	11.7	10.3	9.29	8.50	7.91	4.34
1.70V/cell	99.7	74.3	54.5	45.1	27.8	20.5	16.6	14.0	12.1	10.7	9.56	8.73	8.09	4.39
1.67V/cell	103.8	77.2	56.4	46.8	28.5	21.2	17.0	14.3	12.3	10.8	9.71	8.84	8.19	4.43
1.60V/cell	112.5	82.6	60.6	49.6	29.7	22.0	17.6	14.8	12.6	11.1	9.88	9.03	8.35	4.50

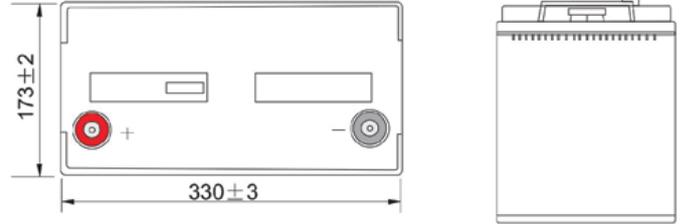
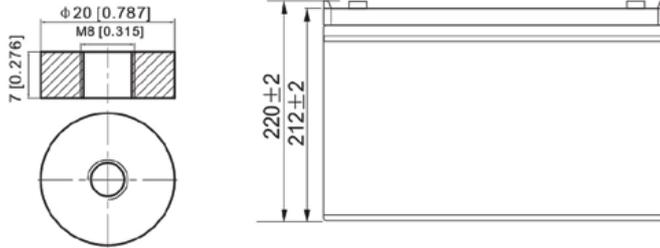
Constant Power Discharge (Watts) at 25°C (77°F)

F.V/Time	20min	30min	45min	1h	2h	3h	4h	5h	6h	7h	8h	9h	10h	20h
1.85V/cell	137.6	108.8	83.5	70.2	44.7	34.1	28.4	24.6	21.3	18.9	17.1	15.6	14.8	8.14
1.80V/cell	155.6	120.4	91.4	77.1	48.1	36.4	30.0	25.7	22.3	19.7	17.9	16.4	15.4	8.47
1.75V/cell	172.9	131.2	98.1	82.1	50.8	38.4	31.3	26.7	23.0	20.4	18.4	16.9	15.7	8.63
1.70V/cell	184.3	139.3	103.4	86.3	53.6	39.9	32.2	27.4	23.8	21.0	18.9	17.3	16.1	8.73
1.67V/cell	189.6	143.2	106.3	89.1	54.8	41.0	32.9	27.9	24.1	21.3	19.2	17.5	16.2	8.81
1.60V/cell	203.2	151.9	113.4	94.1	56.7	42.4	34.1	28.7	24.6	21.7	19.4	17.8	16.5	8.92

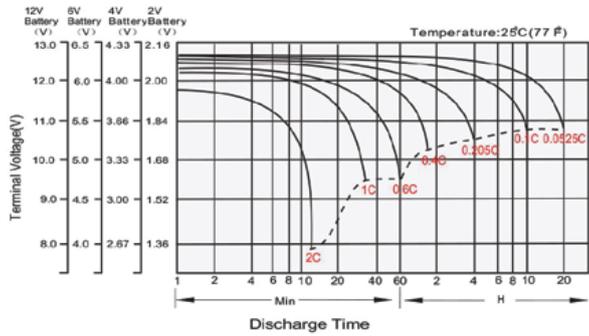
Note The above data are average values, and can be obtained with 3 charge/discharge cycles. These are not minimum values.

Dimensions

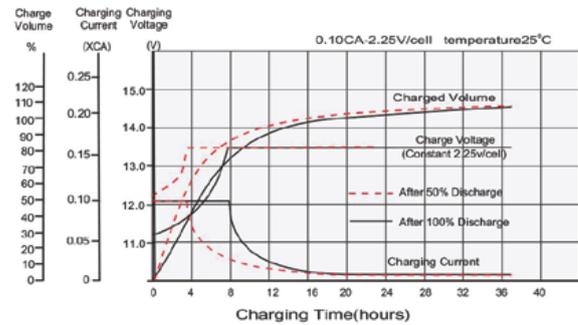
T11 Terminal Unit: mm [inches]



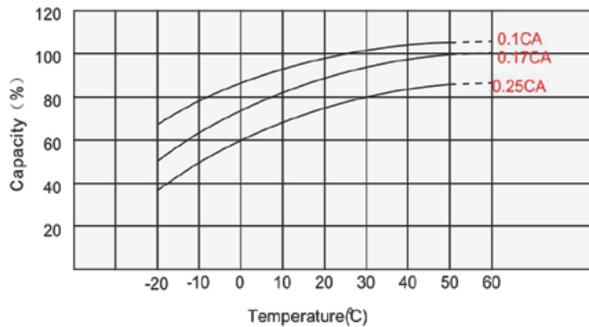
Discharge Characteristics



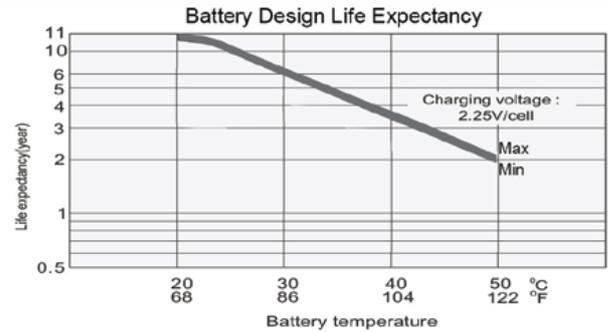
Float Charging Characteristics



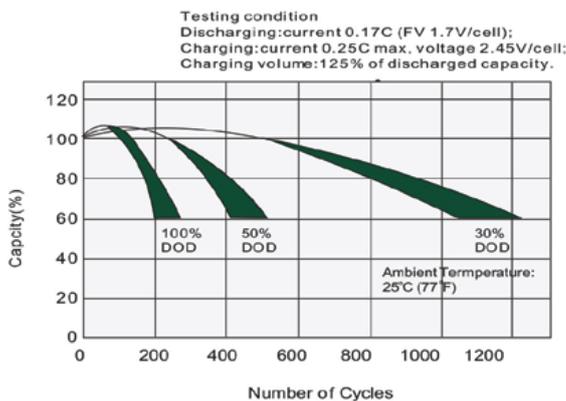
Temperature Effects in Relation to Battery Capacity



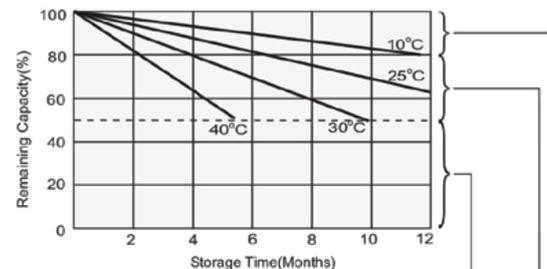
Effect of Temperature on Long Term Float Life



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 is required before use. Optional charging may be as follows:
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.)