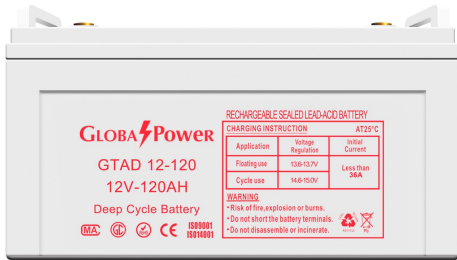


GTAD12-120 12V120AH

DEEP CYCLE BATTERY - DC SERIES



Specifications

Nominal Voltage	12V	
Nominal Capacity (10HR)	120Ah	
Dimensions	Length	406 ±3mm
	Width	174 ±2mm
	Height	215 ±2mm
	Total height	233 ±2mm
Approx. Weight	32kg	
Terminal Type	T11	
Container Material	ABS	
	20HR (1.80V)	128.6Ah
Rated Capacity (25°C)	10HR (1.75V)	120Ah
	5HR (1.75V)	105.2Ah
	3HR (1.75V)	95.4Ah
	1HR (1.60V)	77.5Ah
	Max. Discharge Current	1300A (5 sec.)
Internal Resistance (Fully charged, 25°C)	Approx. 4mΩ	
Operating Temp. Range	Discharge	-15°C~50°C (5°F~122°F)
	Charge	0~40°C (32°F~104°F)
	Storage	-15°C~40°C (5°F~104°F)
Nominal Operating Temp.	25°C±3°C (77°F±5°F)	
Cyclic Charging Voltage (25°C)	Initial Charging Current less than 36A. Voltage 14.6V~15.0V at 25°C (77°F) Temp. Coefficient -30mV/°C	
Float Charging Voltage (25°C)	No limit on Initial Charging Current Voltage 13.6V~13.7V 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 (25°C)	Global Power batteries may be stored for up to 6 months at 25°C (77°F) and battery should be recharged before use. For higher temperatures the time interval will be shorter.	

Applications

- ◆ Uninterruptable Power Supply (UPS)
- ◆ Electric Power System (EPS)
- ◆ Emergency backup power supply
- ◆ Alarm and security system
- ◆ Electronic apparatus and equipment
- ◆ Communication power supply
- ◆ Solar Power System

Constant current discharge characteristics unit: Ampere/Block (at 25°C, 77°F)

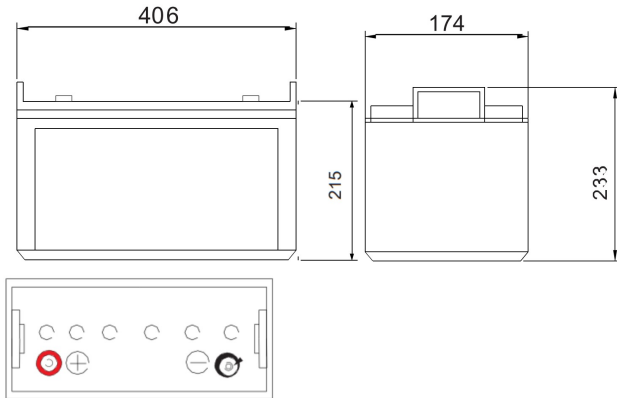
F.V/Time	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.60V/cell	315.0	236.9	195.4	132.0	99.0	77.5	46.5	35.1	28.1	22.9	19.6	15.3	12.6	6.73
1.65V/cell	290.2	221.5	183.4	125.0	95.0	74.9	45.0	34.1	27.2	22.2	19.2	15.1	12.5	6.70
1.70V/cell	268.9	208.3	172.6	118.5	92.7	72.4	43.8	32.7	26.3	21.6	18.7	14.9	12.2	6.61
1.75V/cell	246.7	195.1	164.3	113.9	89.1	70.2	42.1	31.8	25.7	21.0	18.4	14.7	12.0	6.49
1.80V/cell	224.5	178.6	152.7	109.7	85.9	67.1	40.6	31.2	25.1	20.5	17.9	14.4	11.9	6.43
1.85V/cell	175.7	147.8	129.2	93.0	73.8	59.9	37.2	29.0	23.5	19.1	16.7	13.6	11.3	6.37

Constant power discharge characteristics unit: Watt/Block (at 25°C, 77°F)

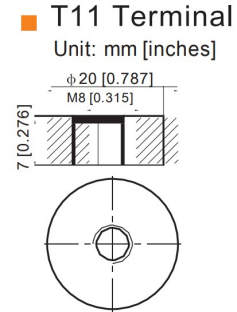
F.V/Time	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.60V/cell	551.2	424.6	356.2	244.8	186.1	147.0	88.9	67.4	54.2	44.4	38.3	30.0	24.9	13.4
1.65V/cell	516.5	401.8	337.8	234.2	180.2	143.1	86.5	65.8	52.8	43.2	37.5	29.8	24.7	13.3
1.70V/cell	482.0	380.3	319.5	223.0	176.4	138.9	84.4	63.2	51.1	42.1	36.8	29.3	24.2	13.2
1.75V/cell	448.5	358.9	305.7	215.1	170.2	135.0	81.4	61.7	49.9	41.1	36.1	29.0	24.0	13.0
1.80V/cell	413.3	331.7	286.6	208.2	164.8	129.5	78.7	60.7	48.9	40.2	35.2	28.5	23.8	12.9
1.85V/cell	327.8	278.7	246.2	178.6	142.8	116.3	72.5	56.7	46.0	37.5	32.9	26.9	22.4	12.8

Note 1: The above data are average values, and can be obtained with 3 charge/discharge cycles. These are not minimum values.

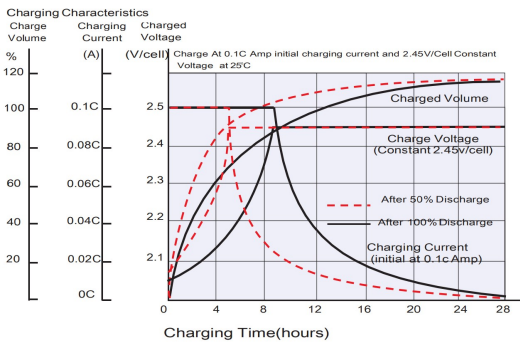
Outer dimensions (mm)



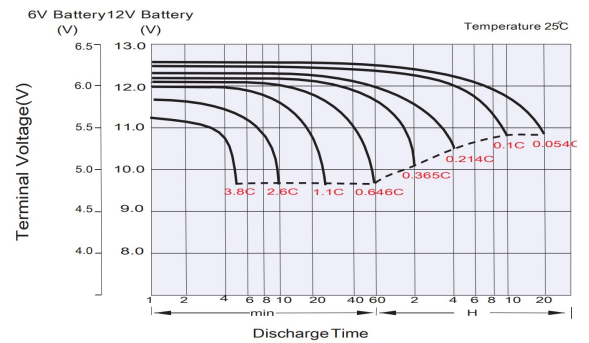
Terminal type (mm)



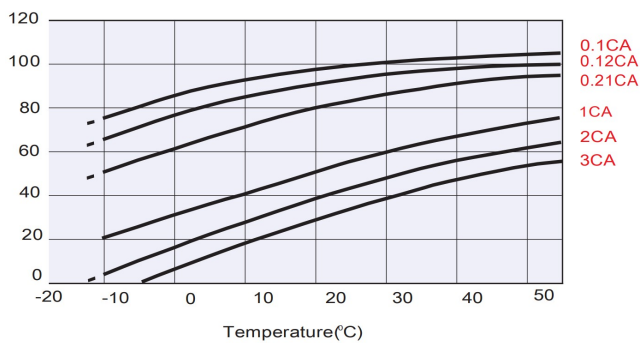
Charging Characteristics (Cycle Use)



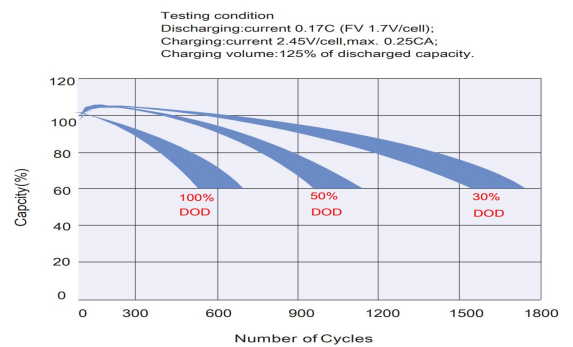
Discharge Characteristics



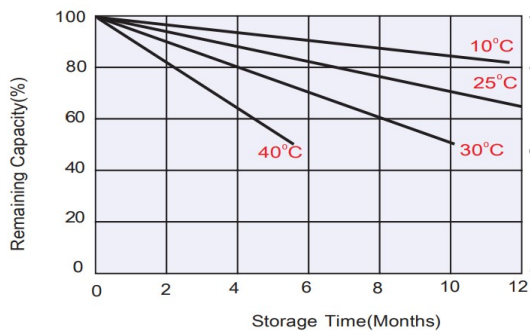
Temperature Effects in Relation to Battery Capacity



Cycle Life in Relation to Depth of Discharge



Self Discharge Characteristics



- No supplementary charge required
(Carry out supplementary charge before use if 100% capacity is required.)
- Supplementary charge required before use. Optional charging way as below:
 - Charged for above 3 days at limited current 0.25CA and constant voltage 2.25V/cell.
 - Charged for above 20 hours at limited current 0.25CA and constant voltage 2.45V/cell.
 - Charged for 8-10 hours at limited current 0.05CA.
- Supplementary charge may often fail to recover the capacity.
The battery should never be left standing till this is reached.