

GTAD12-100 12V100AH

DEEP CYCLE BATTERY -DC SERIES



Specifications

Nominal Voltage	12V	
Nominal Capacity (10HR)	100Ah	
Dimensions	Length	329±3mm
	Width	172±2mm
	Height	218±2mm
	Total height	225±2mm
Approx. Weight	28.6kg	
Terminal Type	T11	
Container Material	ABS	
Rated Capacity (25°C°)	20HR (1.80V)	107.2Ah
	10HR (1.75V)	100Ah
	5HR (1.75V)	87.5Ah
	3HR (1.75V)	79.5Ah
	1HR (1.60V)	64.6Ah
Max. Discharge Current	1200A (5 sec.)	
Internal Resistance (Fully charged, 25°C)	Approx. 4.9mΩ	
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 30.0A. 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)

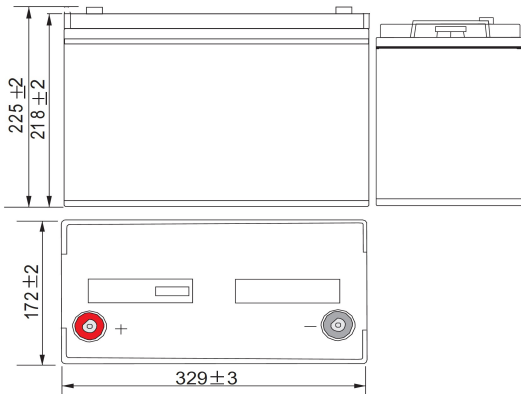
F.V/Time	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.60V/cell	262.5	197.4	162.8	110.0	82.5	64.6	38.8	29.3	23.4	19.1	16.3	12.7	10.5	5.61
1.65V/cell	241.8	184.6	152.8	104.2	79.2	62.4	37.5	28.4	22.7	18.5	16.0	12.6	10.4	5.58
1.70V/cell	224.1	173.6	143.9	98.8	77.2	60.4	36.5	27.2	22.0	18.0	15.6	12.4	10.2	5.51
1.75V/cell	205.6	162.6	136.9	94.9	74.3	58.5	35.1	26.5	21.4	17.5	15.3	12.5	10.0	5.41
1.80V/cell	187.1	148.9	127.3	91.4	71.6	55.9	33.9	26.0	20.9	17.1	14.9	12.0	9.8	5.36
1.85V/cell	146.4	123.2	107.7	77.5	61.5	49.9	31.0	24.2	19.6	15.9	13.9	11.3	9.4	5.31

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
1.65V/cell	459.4	353.8	296.8	204.0	155.1	122.5	74.1	56.2	45.1	37.0	31.9	25.0	20.8	11.2
1.65V/cell	430.4	334.8	281.5	195.2	150.2	119.2	72.1	54.8	44.0	36.0	31.3	24.8	20.6	11.1
1.70V/cell	401.7	316.9	266.3	185.8	147.0	115.7	70.3	52.7	42.6	35.1	30.7	24.5	20.2	11.0
1.75V/cell	373.8	299.1	254.8	179.3	141.8	112.5	67.8	51.4	41.6	34.3	30.1	24.1	20.0	10.8
1.80V/cell	344.4	276.5	238.8	173.5	137.3	107.9	65.6	50.6	40.8	33.5	29.3	23.7	19.8	10.7
1.85V/cell	273.2	232.3	205.2	148.8	119.0	96.9	60.4	47.2	38.4	31.3	27.4	22.4	18.7	10.6

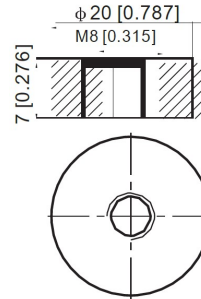
Note 1: The above data are average values, and can be obtained with 3 charge/discharge cycles. These are not minimum values.

Outer dimensions (mm)

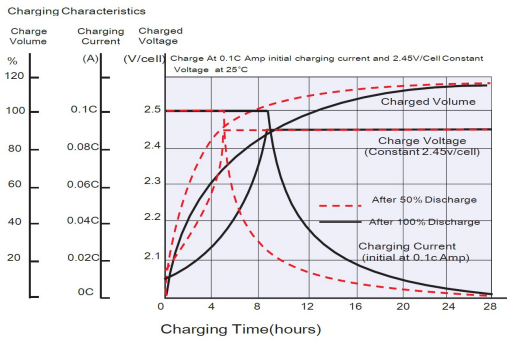


Terminal type (mm)

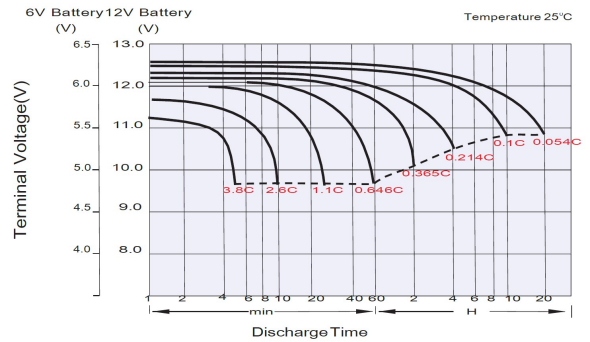
T11 Terminal
Unit: mm [inches]



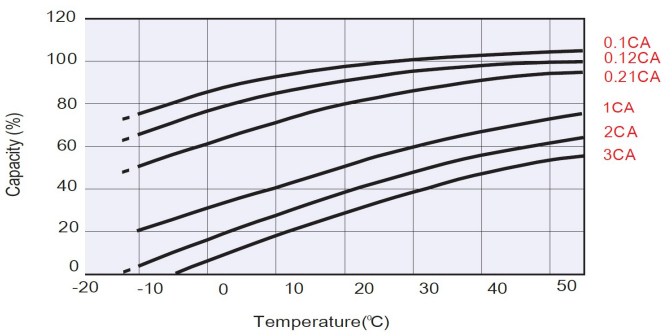
Float Charging Characteristics



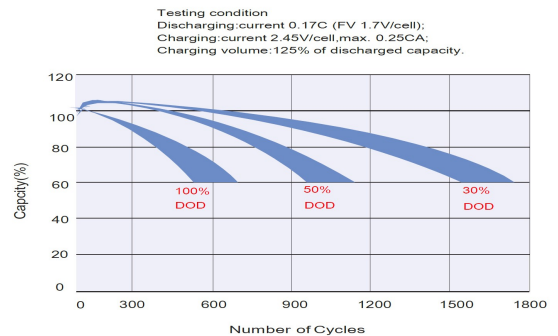
Discharge Characteristics



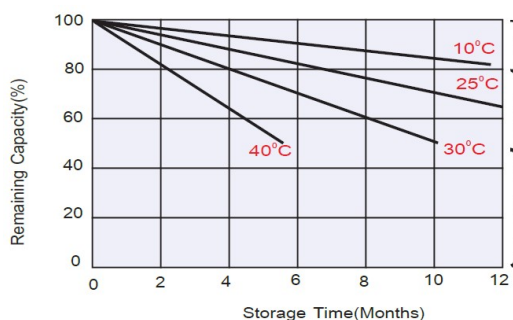
Temperature Effects in Relation to Battery Capacity



Effect of Temperature on Long Term Float Life



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.