

GTAD12-100 (12V-100AH)

DC SERIES-Deep Cycle Battery



Applications

- ◆ Electric tools
- ◆ Vehicle in place of walking
- ◆ Lawn mowers
- ◆ Golf trolleys and golf cart
- ◆ Portable apparatus, lights and instruments;
- ◆ Electric toys
- ◆ Illumination light
- ◆ Fire alarms
- ◆ Portable power
- ◆ Wheelchairs
- ◆ Medical equipments.

ISO 9001	ISO 14001	OHSAS 18001	
	RoHS		

Specification

Nominal Voltage	12V	
Nominal Capacity(10HR)	100AH	
Dimension	Length	329 ± 3mm (12.95 inches)
	Width	172 ± 2mm (6.77 inches)
	Container Height	214 ± 2mm (8.42 inches)
	Total Height (with Terminal)	243 ± 2mm (9.56 inches)
Approx Weight	Approx 30.8Kg(67.9lbs)	
Terminal	T11	
Container Material	ABS	
Rated Capacity	107.2 AH/5.36A	(20hr ,1.80V/cell,25°C/77°F)
	100.0 AH/10.0A	(10hr,1.80V/cell,25°C/77°F)
	87.7 AH/17.5A	(5hr,1.75V/cell,25°C/77°F)
	79.5 AH/26.5A	(3hr,1.75V/cell,25°C/77°F)
	64.6 AH/64.6A	(1hr,1.60V/cell,25°C/77°F)
Max. Discharge Current	1200A (5s)	
Internal Resistance	Approx 4.9mΩ	
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 30.0A.Voltage 14.4V~14.9V 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	DC series 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.	

Constant Current Discharge (Amperes) at 25°C (77°F)

F.V/Time	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
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
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	10.0	5.36
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	12.2	10.1	5.41
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
1.65V/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
1.60V/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

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

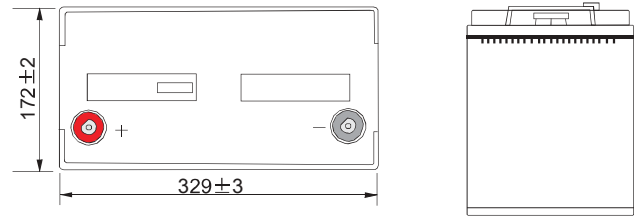
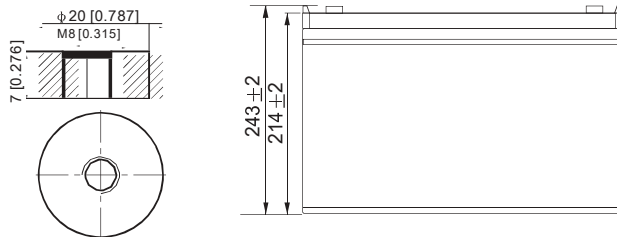
F.V/Time	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	273.2	232.3	205.2	148.8	119.0	96.9	60.4	47.2	38.4	31.3	27.4	22.4	18.7	10.6
1.80V/cell	344.4	276.5	238.8	173.5	137.3	107.9	65.6	50.6	40.8	33.5	29.3	23.7	19.8	10.7
1.75V/cell	373.8	299.1	254.8	179.3	141.8	112.5	67.8	51.4	41.6	34.3	30.1	24.1	20.0	10.8
1.70V/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
1.65V/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
1.60V/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

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

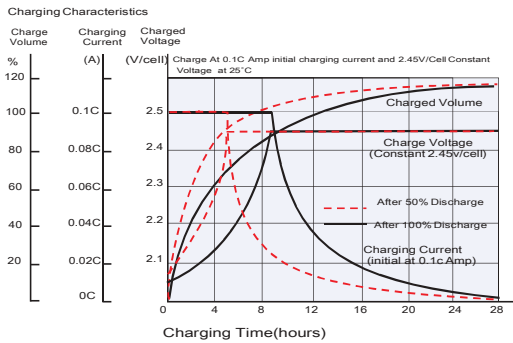
Dimensions

T11 Terminal

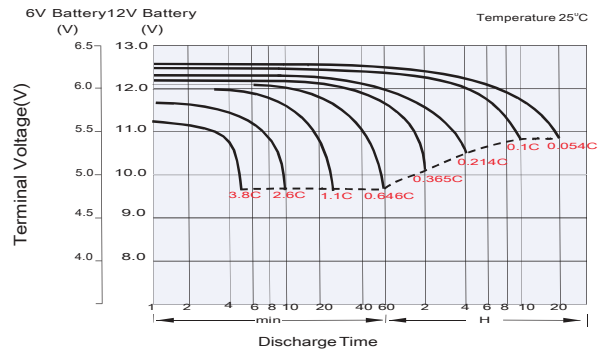
Unit: mm [inches]



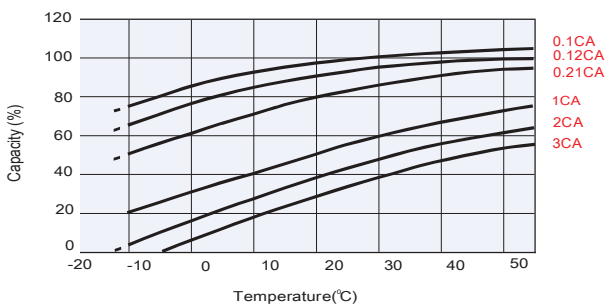
Charging Characteristics (cycle use)



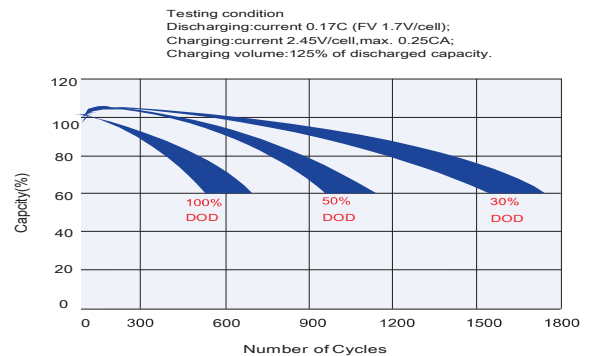
Discharge Characteristics



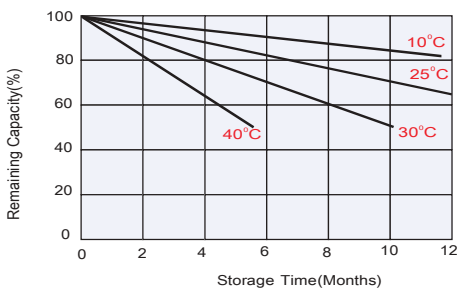
Temperature Effects in Relation to Battery Capacity



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.

TECHFINE DC BATTERIES

This information is generally descriptive only and is not intended to make or imply any representation, guarantee or warranty with respect to any cells and batteries. Cell and battery designs/specification are subject to modification without notice. Contact us for the latest information.