

GTAD12-40 12V40AH

DEEP CYCLE BATTERY - DC SERIES



Specifications

Nominal Voltage	12V	
Nominal Capacity (10HR)	40Ah	
Dimensions	Length	196±2mm
	Width	165±2mm
	Height	173±2mm
	Total height	173±2mm
Approx. Weight	11.6kg	
Terminal Type	T6	
Container Material	ABS	
Rated Capacity (25°C)	20HR (1.75V)	42Ah
	10HR (1.75V)	40Ah
	5HR (1.75V)	33.4Ah
	3HR (1.75V)	30.3Ah
	1HR (1.60V)	24.5Ah
Max. Discharge Current	456A (5 sec.)	
Internal Resistance (Fully charged, 25°C)	Approx. 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 12A. 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 recharge 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

Remarks:

- Use in normal climate environment with standard range of regulated powered electricity.
- Falling, hitting, bending, etc. may cause degradation of battery characteristics.

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

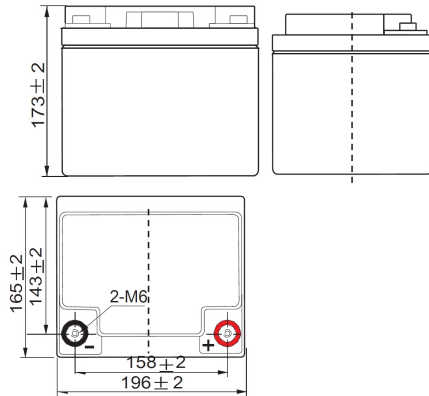
F.V/Time	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.60V/cell	99.8	75.0	61.9	41.8	31.4	24.5	14.7	11.1	8.90	7.25	6.20	4.83	4.56	2.51
1.65V/cell	91.9	70.1	58.1	39.6	30.1	23.7	14.3	10.8	8.63	7.02	6.06	4.79	4.35	2.42
1.70V/cell	85.1	66.0	54.7	37.5	29.3	22.9	13.9	10.4	8.34	6.83	5.94	4.71	4.23	2.23
1.75V/cell	78.1	61.8	52.0	36.1	28.2	22.2	13.3	10.1	8.12	6.67	5.81	4.65	4.00	2.10
1.80V/cell	71.1	56.6	48.4	34.7	27.2	21.3	12.9	9.89	7.95	6.49	5.66	4.57	3.80	1.95
1.85V/cell	55.6	46.8	40.9	29.4	23.4	19.0	11.8	9.19	7.44	6.05	5.28	4.31	3.59	1.85

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

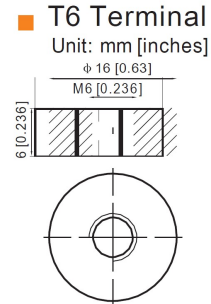
F.V/Time	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.60V/cell	174.6	134.4	112.8	77.5	58.9	46.5	28.1	21.4	17.2	14.1	12.12	9.51	7.89	4.24
1.65V/cell	163.6	127.2	107.0	74.2	57.1	45.3	27.4	20.8	16.7	13.7	11.89	9.43	7.81	4.22
1.70V/cell	152.6	120.4	101.2	70.6	55.9	44.0	26.7	20.0	16.2	13.3	11.65	9.29	7.66	4.18
1.75V/cell	142.0	113.6	96.8	68.1	53.9	42.7	25.8	19.5	15.8	13.0	11.43	9.17	7.59	4.10
1.80V/cell	130.9	105.1	90.8	65.9	52.2	41.0	24.9	19.2	15.5	12.7	11.14	9.02	7.52	4.07
1.85V/cell	103.8	88.3	78.0	56.6	45.2	36.8	23.0	18.0	14.6	11.9	10.42	8.52	7.11	4.04

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

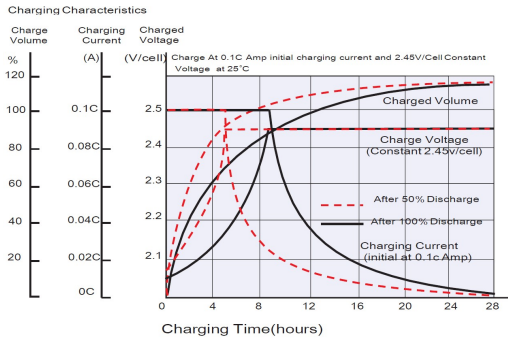
Outer dimensions (mm)



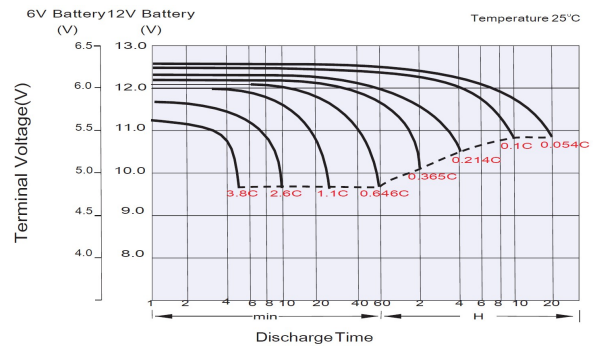
Terminal type (mm)



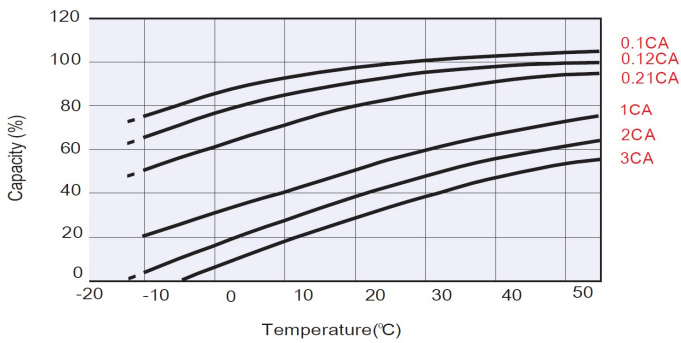
Charging Characteristics (cycle use)



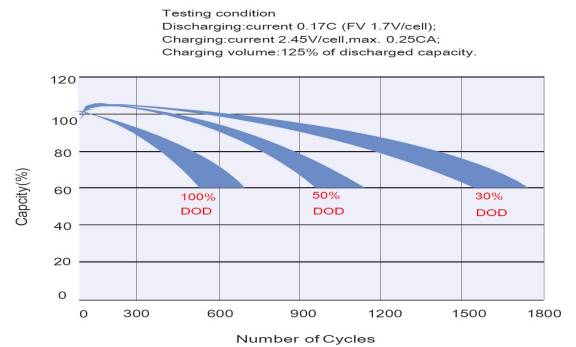
Discharge Characteristics



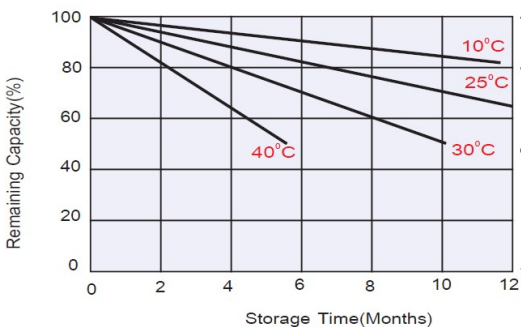
Temperature Effects in Relation to Battery Capacity



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:

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.

Supplementary charge may often fail to recover the capacity.
The battery should never be left standing till this is reached.