GTAD12-120 12V120AH

DEEP CYCLE BATTERY - DC SERIES



Specifications

Nominal Voltage	12V	
Nominal Capacity (10HR)	120Ah	
Dimensions	Length Width Height Total height	409±2mm 176±2mm 225±2mm 225±2mm
Approx. Weight	36kg±3%	
Terminal Type	T16	
Rated Capacity (25°C)	10HR (10.8V) 3HR (10.8V) 1HR (10.5V)	120Ah 91.5Ah 70Ah
Max. Discharge Current	950A (5 sec.)	
Max. Charging Current	36A	
Internal Resistance (Fully charged, 25°C)	Approx. 4mΩ	
Operating Temp. Range	Discharge Charge Storage	-15°C~50°C (5°F~122°F) -10°C~50°C (14°F~122°F) -20°C~50°C (-4°F~122°F)
Nominal Operating Temp.	25°C±3°C (77°F±5°F)	
Cyclic Charging Voltage (25°C)	14.60 to 15.00V Temperature compensation : -30mV/°C	
Float Charging Voltage (25°C)	13.60 to 13.70V Temperature compensation: -18mV/°C	
Capacity affected by temperature (10HR)	40°C 25°C 0°C -15°C	102% 100% 85% 65%
Self-discharge (25°C)	3 months 6 months 12 months	Remaining capacity: 91% Remaining capacity: 82% Remaining capacity: 65%
Design Life	10 years for floating (25°C)	

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.

Construction

Component	Positive plate	Negative plate	Container	Cover	Separator	Electrolyte	Safety valve	Terminal
Raw material	Lead dioxide	Lead	ABS	ABS	AGM	Sulfuric acid	Rubber	Copper

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

F.V/Time	10min	15min	30min	60min	2h	3h	4h	5h	8h	10h	20h
9.60V	268	207	124	76.0	44.9	32.4	25.8	22.1	15.2	12.5	6.64
9.90V	260	202	121	74.9	44.7	32.2	25.7	22.0	15.1	12.5	6.62
10.2V	249	194	117	73.0	44.3	32.0	25.5	21.8	15.0	12.5	6.60
10.5V	239	188	115	70.7	43.6	31.7	25.3	21.6	14.9	12.4	6.56
10.8V	225	178	110	68.4	42.5	30.8	24.6	21.0	14.4	12.3	6.52

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

F.V/Time	10min	15min	30min	60min	2h	3h	4h	5h	8h	10h	20h
9.60V	2896	2269	1387	867	520	381	304	261	180	150	79.6
9.90V	2809	2214	1359	854	517	378	302	259	179	149	79.5
10.2V	2693	2133	1318	832	513	376	300	258	178	149	79.2
10.5V	2577	2060	1286	806	505	373	298	256	177	148	78.8
10.8V	2433	1951	1239	780	492	362	289	248	172	147	78.2

Note 1: Above characteristics data can be obtained within three charge and discharge cycles.

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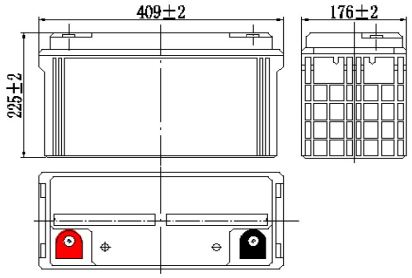
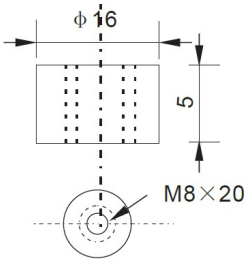
Outer dimensions (mm)

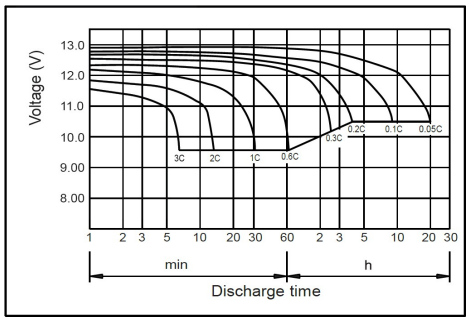


Terminal type (mm)

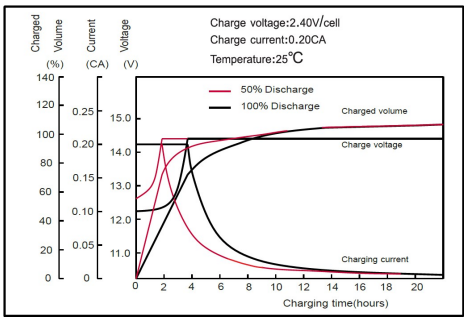


T16

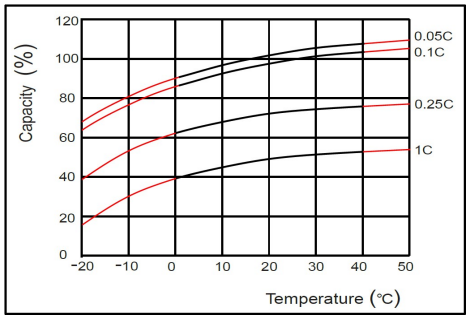
Discharge characteristics (25°C)



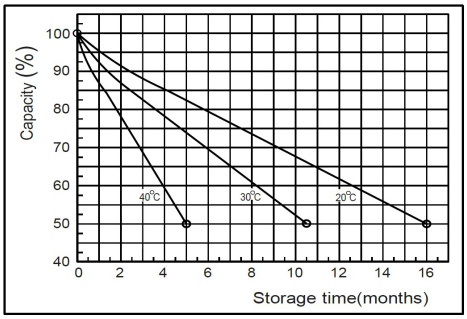
Charging characteristics (25°C)



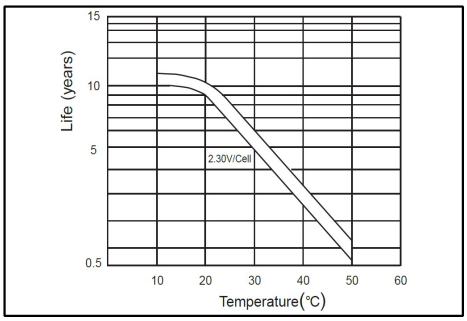
Temperature effects on capacity



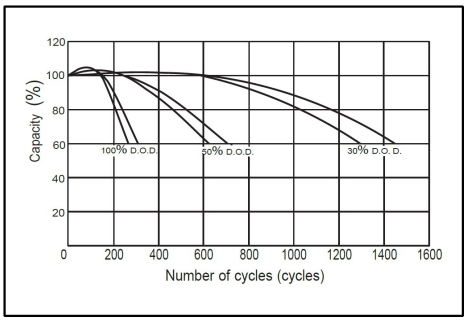
Self-discharge characteristics



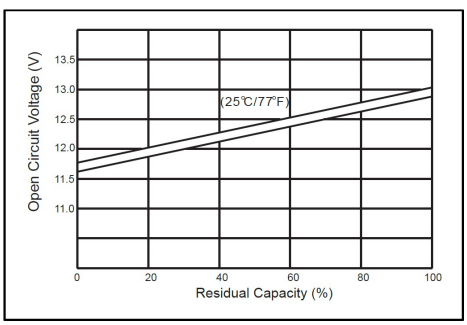
Floating life on temperature



Cycle life on D.O.D (25°C)



Relationship for OCV and capacity (25°C)



Relationship for charging voltage and temperature

