

# GTAG12-18 12V18AH

## AGM BATTERY- AGM SERIES



### Specifications

Nominal Voltage	12V (6 cells per unit)	
Nominal Capacity (20HR)	18Ah/10.5V	
Dimensions	Length	181.5±1mm
	Width	77±1mm
	Height	167.5±1mm
	Total height	167.5±1mm
Approx. Weight	5.20kg±4%	
Terminal Type	T3	
Rated Capacity (25°C)	20HR (10.5V)	18Ah
	10HR (10.5V)	16.8Ah
	1HR (9.60V)	11Ah
Max. Discharge Current	270A (5 sec.)	
Max. Charging Current	5.4A	
Internal Resistance (Fully charged, 25°C)	Approx. 15mΩ	
Operating Temp. Range	Discharge	-15°C~50°C (5°F~122°F)
	Charge	-10°C~50°C (14°F~122°F)
	Storage	-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/Block	
Float Charging Voltage (25°C)	13.60 to 13.70V Temperature compensation : -18mV/°C/Block	
	40°C	102%
Capacity affected by temperature (10HR)	25°C	100%
	0°C	85%
	-15°C	65%
	3 months	Remaining capacity: 91%
Self-discharge (25°C)	6 months	Remaining capacity: 82%
	12 months	Remaining capacity: 65%
	Design Life	5 years for floating (25°C) Eurobat (20°C): 3-5 years, standard commercial.

### Applications

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

#### 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)

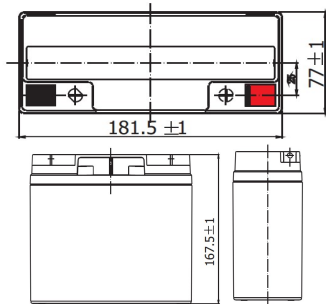
F.V/Time	5min	10min	15min	30min	60min	2h	3h	4h	5h	10h	20h
9.60V	68.8	43.6	34.0	19.2	11.8	6.45	4.46	3.69	3.14	1.70	0.91
9.90V	66.7	42.3	33.2	18.8	11.6	6.41	4.44	3.67	3.12	1.70	0.91
10.2V	63.9	40.5	32.0	18.2	11.3	6.35	4.40	3.64	3.10	1.69	0.91
10.5V	61.2	38.8	30.9	17.8	11.1	6.26	4.37	3.62	3.08	1.68	0.90
10.8V	57.8	36.6	29.3	17.1	10.8	6.10	4.24	3.51	2.99	1.65	0.88

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

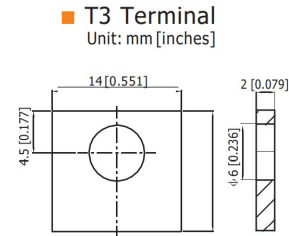
F.V/Time	5min	10min	15min	30min	60min	2h	3h	4h	5h	10h	20h
9.60V	767	491	388	220	137	75.5	53.0	44.0	37.5	20.5	11.0
9.90V	744	477	379	215	134	75.0	52.7	43.7	37.3	20.4	10.9
10.2V	714	457	365	209	131	74.3	52.3	43.4	37.0	20.3	10.9
10.5V	683	437	352	204	128	73.2	52.0	43.1	36.8	20.2	10.8
10.8V	645	413	334	196	125	71.4	50.4	41.8	35.6	19.7	10.6

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

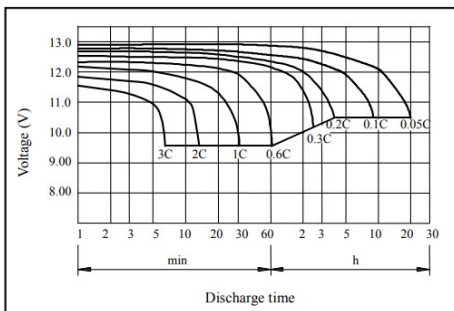
## Outer dimensions (mm)



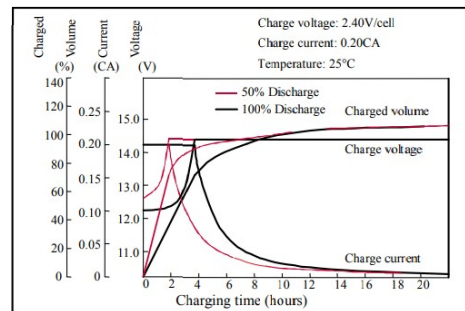
## Terminal type (mm)



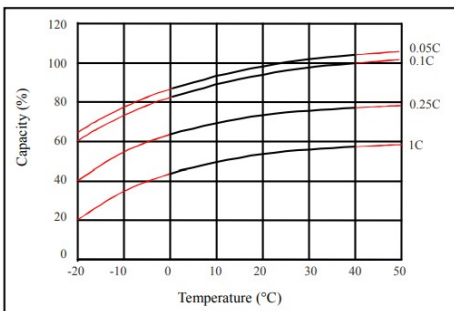
## Discharge characteristics (25°C)



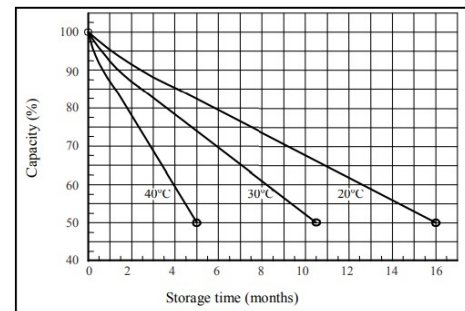
## Charging characteristics (25°C)



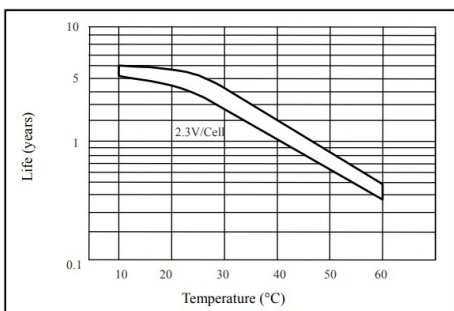
## Temperature effects on capacity



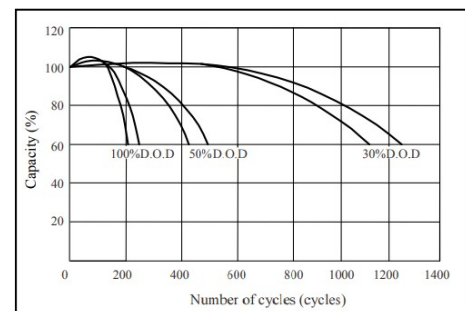
## Self-discharge characteristics



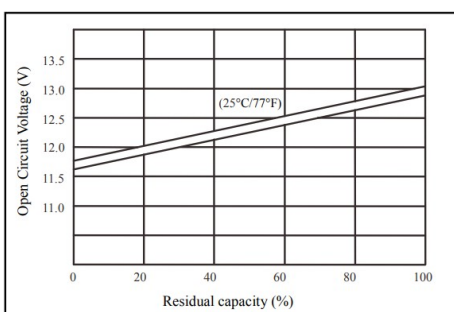
## Floating life on temperature



## Cycle life on D.O.D (25°C)



## Relationship for OCV and capacity (25°C)



## Relationship for charging voltage and temperature

