

# AGM Battery (YD Series)

## YD 12-9 (12V 9Ah)

### Specifications

Rated Voltage	12V	
Nominal Capacity	9.0Ah	(C <sub>20</sub> , 1.75V/cell)
Dimension	Length	151±2mm (5.95 inches)
	Width	65±1mm (2.56 inches)
	Container Height	93.5±1mm (3.68 inches)
	Total Height	99.5±1mm (3.92 inches)
Approx Weight	2.52 Kg (5.56 lbs)	
Terminal	T2	
Container Material	ABS	
Rated Capacity (25°C)	9.00 Ah	(20hr, 0.450A, 1.75V/cell)
	8.51 Ah	(10hr, 0.851A, 1.75V/cell)
	7.75 Ah	(5hr, 1.55A, 1.75V/cell)
	6.90 Ah	(3hr, 2.30A, 1.75V/cell)
	5.98 Ah	(1hr, 5.98A, 1.60V/cell)
Max. Discharge Current	135A (5s)	
Internal Resistance (25°C)	Approx 17mΩ	
Operating Temp. Range	Discharge	-15~50°C (5~122°F)
	Charge	-20~40°C (-4~104°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 1.8A Voltage	
	14.4V~14.7V at 25°C (77°F) Temp. Coefficient -30mV/°C	
Standby Use	Initial Charging Current less than 1.8A Voltage	
	13.5V~13.8V at 25°C (77°F) Temp. Coefficient -20mV/°C	
Effect of temp. to Capacity	40°C (104°F)	103%
	25°C (77°F)	100%
	0°C (32°F)	86%
Self Discharge	YD series batteries may be stored for up to 6 months at 25°C(77°F) and then a freshening charge is required. For higher temperatures the time interval will be shorter.	



### Applications

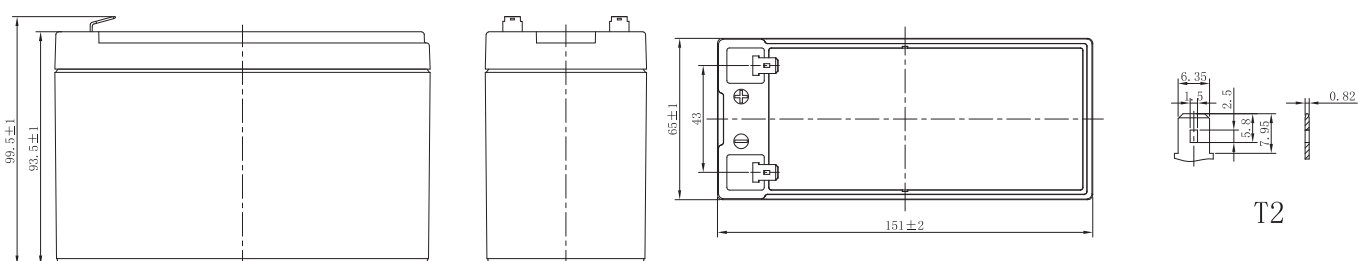
- All purpose
- Uninterruptable Power Supply (UPS)
- Electric Power System (EPS)
- Emergency backup power supply
- Alarm and security system
- Communication power supply
- DC power supply
- Auto control system



### General Features

- 5 years float life (25°C)
- Special exhaust structure and sealing technology, safe and reliable, flexible installation, convenient maintenance
- PbCaSn alloy for plate grids: less gassing, less self-discharging
- High quality AGM separator: extend cycle life and prevent micro short circuit
- High purity raw material: ensure low self discharge rate

### Layout



T2

# AGM Battery (YD Series) YD 12-9 (12V 9Ah)

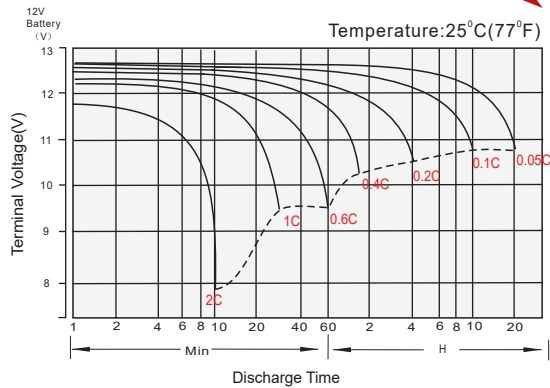
## Constant Current Discharge (Amperes) at 25 °C (77°F)

F.V/Time	5min	10min	15min	20min	30min	45min	1h	1.5h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	30.2	20.7	16.1	12.9	9.34	6.72	5.41	3.92	3.08	2.22	1.77	1.51	1.29	1.02	0.832	0.440
1.80V/cell	32.4	21.9	16.9	13.4	9.63	6.90	5.54	4.00	3.14	2.26	1.80	1.53	1.31	1.03	0.843	0.445
1.75V/cell	34.2	22.8	17.4	13.8	9.88	7.05	5.66	4.08	3.19	2.30	1.82	1.55	1.33	1.04	0.851	0.450
1.70V/cell	35.8	23.7	18.0	14.2	10.1	7.21	5.76	4.15	3.24	2.33	1.85	1.57	1.34	1.05	0.860	0.454
1.67V/cell	37.0	24.4	18.5	14.5	10.3	7.32	5.85	4.20	3.28	2.35	1.86	1.58	1.35	1.06	0.866	0.457
1.60V/cell	39.3	25.4	19.1	14.9	10.6	7.50	5.98	4.29	3.34	2.40	1.90	1.61	1.37	1.08	0.877	0.462

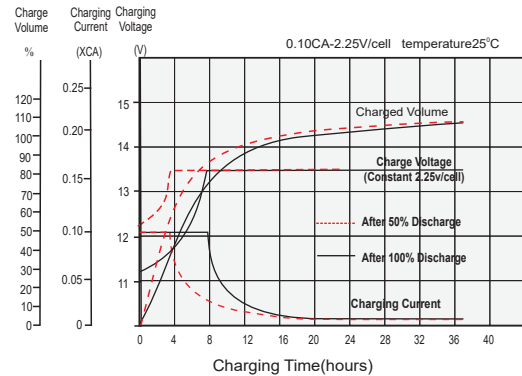
## Constant Power Discharge (Watts/cell) at 25 °C (77°F)

F.V/Time	5min	10min	15min	20min	30min	45min	1h	1.5h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	57.1	39.4	30.8	24.8	18.1	13.0	10.5	7.66	6.03	4.37	3.49	2.98	2.55	2.02	1.65	0.880
1.80V/cell	60.8	41.4	32.1	25.7	18.5	13.3	10.8	7.79	6.13	4.43	3.53	3.02	2.59	2.04	1.67	0.890
1.75V/cell	63.3	42.8	33.0	26.2	18.9	13.6	10.9	7.91	6.22	4.49	3.58	3.05	2.62	2.06	1.69	0.900
1.70V/cell	65.7	44.2	33.9	26.9	19.3	13.8	11.1	8.03	6.30	4.55	3.62	3.09	2.64	2.08	1.71	0.907
1.67V/cell	67.4	45.2	34.6	27.4	19.6	14.0	11.2	8.11	6.36	4.59	3.65	3.11	2.67	2.10	1.72	0.914
1.60V/cell	70.1	46.5	35.6	28.0	20.0	14.3	11.4	8.3	6.46	4.66	3.71	3.15	2.70	2.13	1.74	0.924

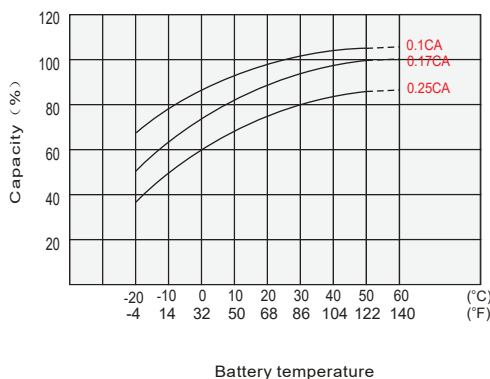
### Discharge Characteristics



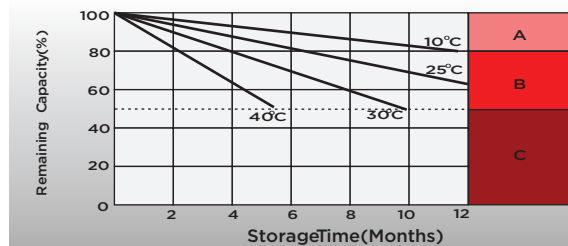
### Float Charging Characteristics



### Temperature Effects in Relation to Battery Capacity



### Self Discharge Characteristics



- A** No supplementary charge required (Carry out supplementary charge before use if 100% capacity is required.)
- B** Supplementary charge required before use. Optional charging ways 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
- C** Supplementary charge may often fail to recover the capacity. The battery should never be left standing till this is reached.