



## FEATURES



Compact size ideal for any type of use.

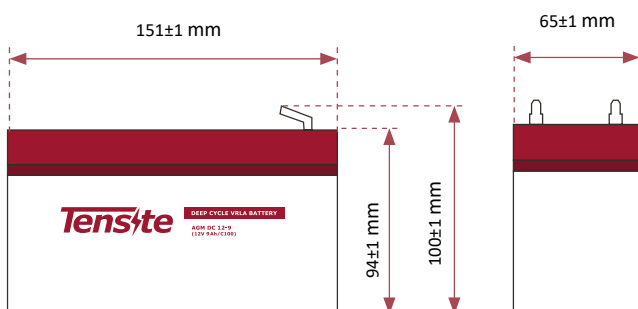


High performance due to its deep discharge life cycle.



Designed for photovoltaic installations.

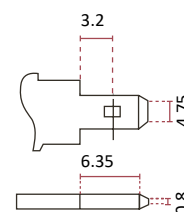
## DIMENSIONS



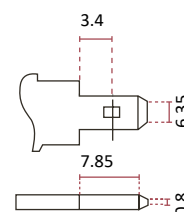
\* Stainless steel connection screws, included in packaging.

## TERMINAL TYPE

F1



F2



## DEEP CYCLE BATTERY AGM 12V 9 AH

### DEEP CYCLE SERIES BATTERY

The DC series VRLA batteries are superior deep cycle design with thick plates, high-density active materials and slightly stronger electrolyte which can withstand repeated deep cyclic applications.

Deep Cycle series batteries are the special design batteries with 6 years floating life at 25°C. Meet with IEC, BS, JIS, Eurobat, UL (MH62092) and CE approved.



### APPLICATION

- Emergency power system.
- Communication equipment.
- Telecommunications systems.
- Uninterruptible power supply.
- Electric wheelchairs.
- Electric toys, cars and motorcycles.
- Electric tools.
- Golf carts and buggies.
- Marine electrical equipment.
- Emergency medical equipment.
- Camping and caravans.
- Solar and wind energy systems.

### GENERAL FEATURES

- Safety sealing.
- Anti-spill technology.
- High power density.
- Excellent deep discharge recovery.
- Thick plates and highly active materials.
- Longer service life and low self-discharge.

### TECHNICAL SPECIFICATIONS

BATTERY MODEL	Nominal Voltage		12 V	
	Rated Capacity (20 Hour rate)		9,0 Ah	
	Cells per battery		6	
DIMENSIONS	Length	Width	Height	Total Height
	151 mm	65 mm	94 mm	100 mm
APPROXIMATE WEIGHT	2,5 kg ± 3%			
CAPACITY @ 25°C (77 °F)	20 hours (0.45 A, 10, 15 V)	10 hours (0.81 A, 10.8 V)	5 hours (1.54 A, 10.5 V)	1 hour (5.4 A, 9.6 V)
	9,0 Ah	8,1 Ah	7,7 Ah	5,4 Ah
MAXIMUM DISCHARGE CURRENT	135 A (5 seconds.)			
INTERNAL RESISTANCE	Approximately 15 mΩ			
CAPACITY VS TEMPERATURE	40°C	25°C	0°C	-15°C
	102%	100%	85%	65%
SELF DISCHARGE @ 25°C	After 3 months in storage		After 6 months	After 12 months
	91%		82%	64%
CHARGE METHOD @ 25°C	Cycle Use		Float Use	
	14,3V / 14,6V (Initial charging current less than 2,7A)		13,6V / 13,8V	

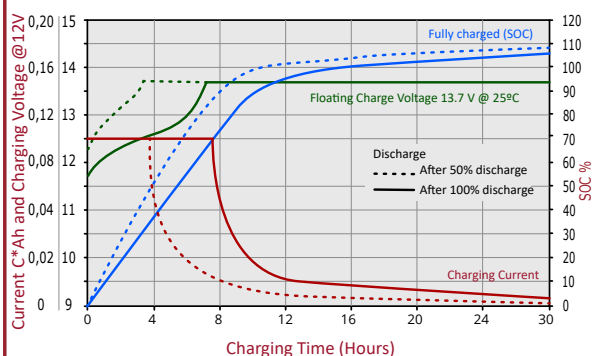
### BATTERY DISCHARGE TABLE

F.V / TIME		CONSTANT CURRENT(A) AND CONSTANT POWER (W) DISCHARGE TABLE AT 25°C							
9.60	A	10 min	15 min	30 min	1 hr	3 hrs	5 hrs	10hrs	20 hrs
	W	21.20	17.70	11.40	5.83	2.41	1.61	0.85	0.47
10.20	A	240.00	204.00	120.90	67.28	27.88	18.63	9.86	5.40
	W	20.30	16.20	10.81	5.48	2.34	1.58	0.84	0.45
10.50	A	227.30	191.60	120.00	63.18	27.10	18.29	9.68	5.25
	W	19.00	15.10	10.50	5.30	2.30	1.57	0.83	0.45
10.80	A	220.50	182.70	118.80	61.34	26.63	18.17	9.60	5.25
	W	18.20	14.10	10.19	5.12	2.27	1.49	0.81	0.44
11.10	A	213.80	176.00	118.36	59.50	26.32	17.37	9.38	5.10
	W	17.10	13.10	9.90	4.94	2.14	1.43	0.79	0.43
	A	206.60	167.60	117.59	58.75	25.54	16.98	9.19	5.06
	W								

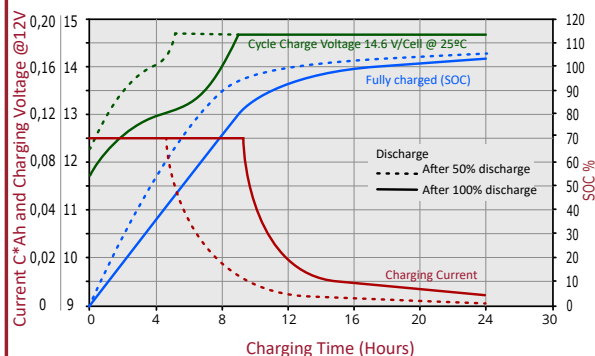
**USE IN FLOTATION:** The battery is connected to the charger continuously, maintaining the charge at 100%, ready for discharge at specific times. This is the case of alarms, UPS systems, backup systems, telecommunications backup.

**USE IN CYCLES:** The battery is charged and discharged, repeating this cycle regularly. This is the case for residential photovoltaic installations (day/night), electric cars and in applications that are consumed when no load is available. The starting of combustion engines would be an application that combines both types of use.

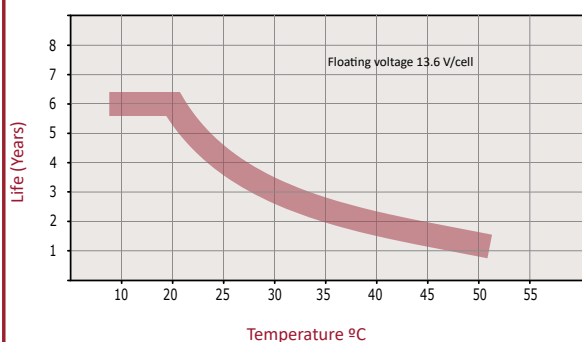
### Float Use: Charging Characteristics



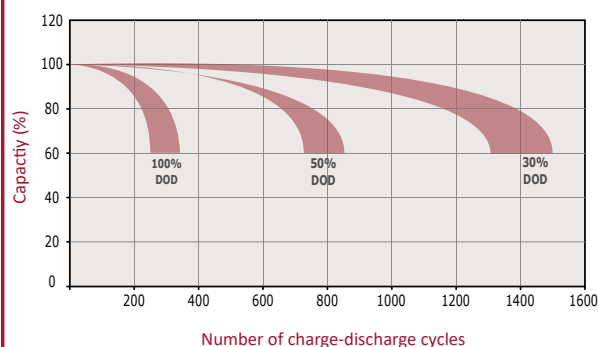
### Cycle Use: Charging Characteristics



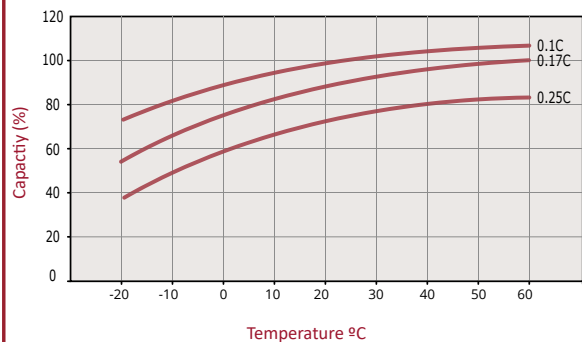
### Expected life at Flotation and Temperature



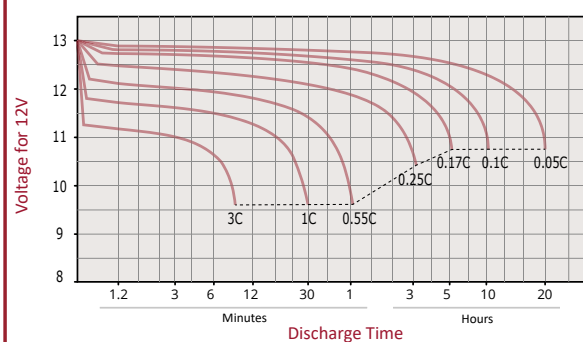
### Cycle life in relation to Depth of Discharge



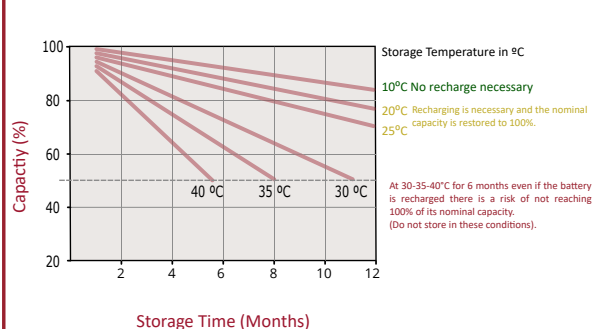
### Temperature effects in relation to battery capacity



### Discharge Characteristics 25°C (77°F)



### Self-Discharge Characteristics with Temperature



### Voltage Charge and Temperature

