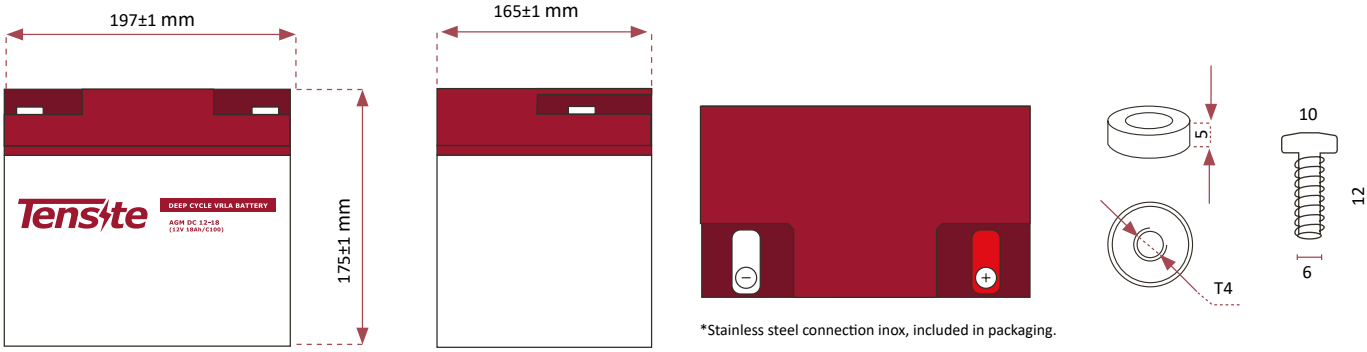
GEL 12-40

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 inox, included in packaging.

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GEL BATTERY
12V 40 AH

GEL SERIES BATTERY

The GEL series batteries incorporate the new CCDR continuous lamination stamped plate technology, which allows them to withstand deep cyclic charge and discharge applications. The batteries use colloidal or foamed silica gel that immobilises the electrolyte, which further enhances the cycling stability and eliminates stratification.
Gel series batteries are the special design batteries with 15 years floating design life at 20ºC. Meet with IEC, BS, JIS and Eurobat standards.

APPLICATION

- Emergency power system.
- Communication equipment.
- Telecommunications systems.
- Uninterruptible power supplies.
- Electric wheelchairs.
- Electric toys, cars and wheelchairs.
- Power tools.
- Golf carts and buggies.
- Marine equipment.
- Medical equipment.
- Solar and wind power system.

GENERAL FEATURES

- Safety sealing.
- Non-spillable technology.
- High power density.
- Excellent deep discharge recovery.
- Thick plates and highly active materials.
- Longer life and low self-discharge design.

TECHNICAL SPECIFICATIONS

BATTERY MODEL	**Nominal Voltage**			12 V			
	Rated capacity (100 hour rate)			40 Ah			
	Cells per battery			6			
DIMENSIONS	**Length**	**Width**	**Height**	**Total Height**			
	197 mm	165 mm	174 mm	175 mm			
APPROXIMATE WEIGHT	13,45 kg ± 3%						
CAPACITY @ 25ºC	**10 hours**	**5 hours**	**3 hours**	**1 hour**			
	40 Ah	32 Ah	30Ah	24 Ah			
MAXIMUM DISCHARGE CURRENT	380 A (5 sec.)						
MAXIMUN CHARGE CURRENT	12 A						
INTERNAL RESISTANCE	Fully charged at 25ºC: Approx 5.9 mΩ						
CAPACITY VS TEMPERATURE	**40ºC**	**25ºC**	**0ºC**	**-15ºC**			
	102%	100%	85%	65%			
SELF DISCHARGE @ 25ºC	**After 3 months in storage**		**After 6 months in storage**	**After 12 months in storage**			
	91%		82%	64%			
CHARGE METHOD @ 25ºC	**Cycle Use**		**Float Use**				
	14.4-15.0V		13,50- 13,80 V				
CONSTRUCTION	**Container**	**Electrolyte**	**Separators**	**Positive**	**Negative**	**Valve**	**Terminal**
	ABS (UL94-HB) / Flame retardant ABS (UL94-V0)	Sulfuric acid thixotropic gel	Macromolecule polymer	Lead dioxide	Lead	EPDR	Copper

BATTERY DISCHARGE TABLE

CONSTANT CURRENT(A) AND ONSTANTE POWER (W) DISCHARGE TABLE AT 25ºC									
F.V / TIME		**10 mins**	**15 mins**	**30 min**	**1 hr**	**3 hrs**	**5 hrs**	**10hrs**	**20 hrs**
11.1	**A**	60.0	48.0	33.6	20.4	9.2	6.10	3.80	2.27
	W	697.0	560.0	393.0	240.0	109.0	73.00	45.90	4.40
10.80	**A**	64.0	52.0	37.6	21.1	9.5	6.20	4.00	2.50
	W	740.0	600.0	436.0	246.0	112.0	74.00	48.00	4.80
10.50	**A**	68.00	56.0	40.80	21.8	9.8	6.40	4.04	2.20
	W	775.0	640.0	470.0	253.0	114.0	75.00	48.00	4.30
10.20	**A**	76.0	64.0	43.6	22.6	10.0	6.50	4.12	2.16
	W	850.0	717.0	489.0	255.0	116.0	76.00	48.00	4.28
9.60	**A**	84.0	68.0	45.6	24.0	10.3	6.60	4.20	2.04
	W	901.0	730.0	490.0	259.0	114.0	75.00	49.00	4.11

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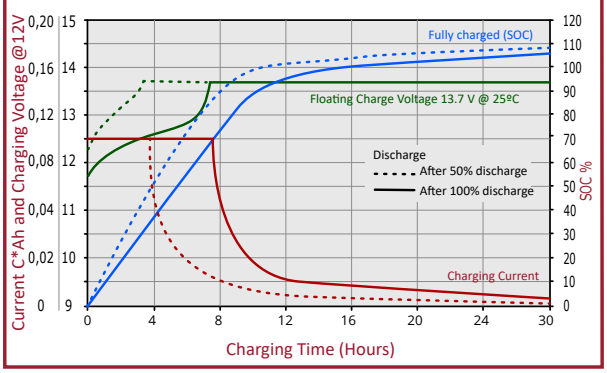
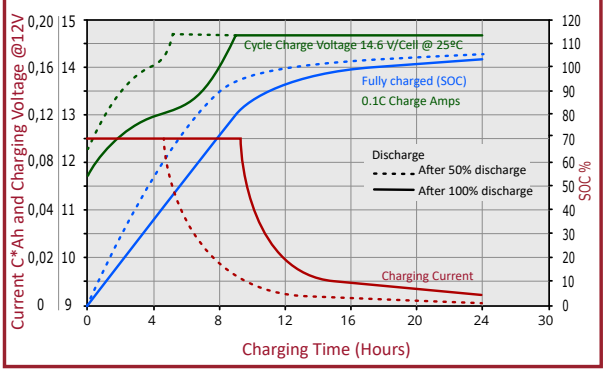
USE IN FLOTATION: The battery is connected to the charger continuously, maintaining the charge at 100%, ready for discharge at specific times. This is the case of alarms, UPS systems, backup systems, telecommunications backup.
USE IN CYCLES: The battery is charged and discharged, repeating this cycle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

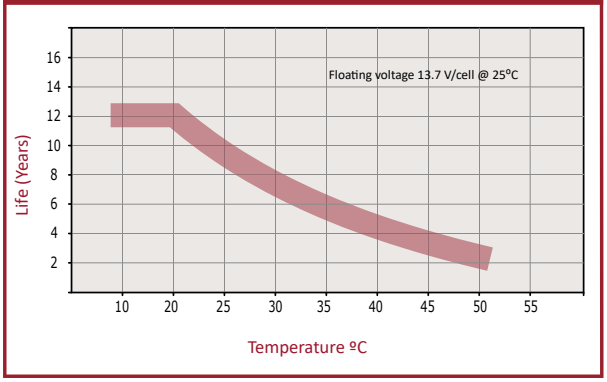
Float Use: Charging Characteristics



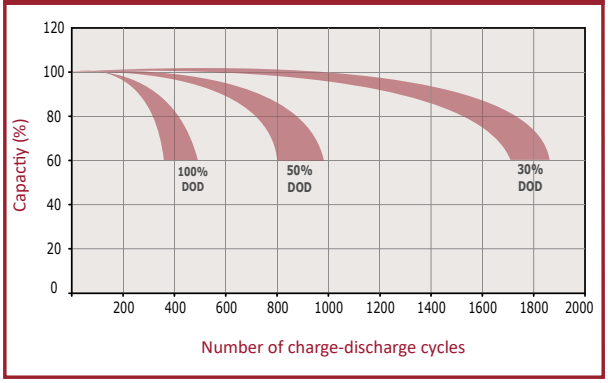
Cycle Use: Charging Characteristics



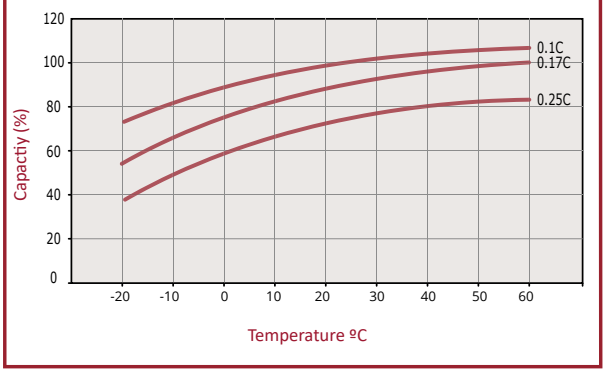
Expected life at Flotation and Temperature



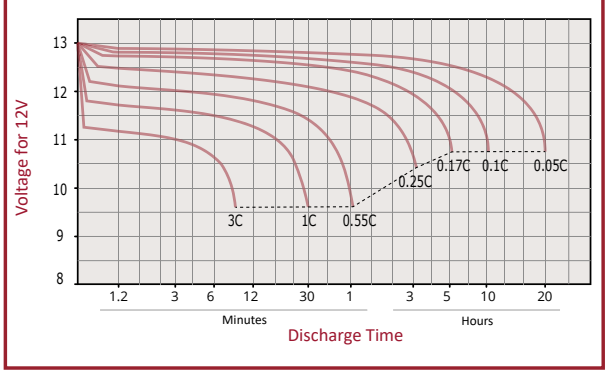
Cycle life in relation to Depth of Discharge



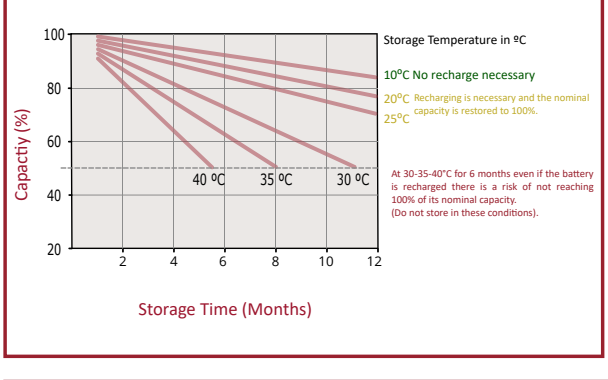
Temperature effects in relation to battery capacity



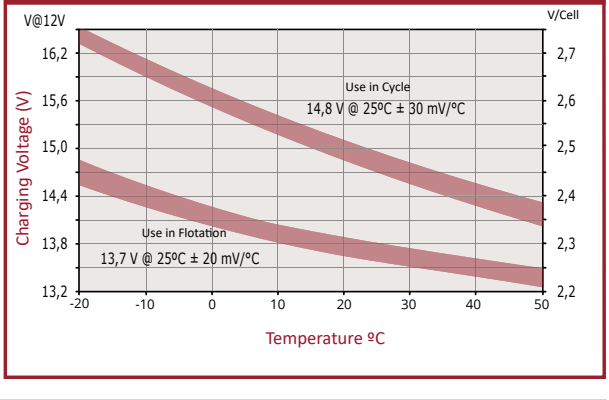
Discharge Characteristics 25ºC (77ºF)



Self-Discharge Characteristics with Temperature



Voltage Charge and Temperature



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