



# INDEPENDENT POWER

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## What are the advantages and disadvantages of the different types of battery ?

### GELLED ELECTROLYTE

#### **Advantages**

- Totally maintenance free
- **Superior deep cycle life when compared to AGM**
- Air transportable
- Spill proof/leak proof
- Minimal corrosion thus physically compatible with sensitive electronic equipment
- Installs upright or on side
- Very low to no gassing (unless overcharged)
- Superior shelf life when compared to Wet Cell
- No recharge current limitation @ 13.8 volts
- Rugged and vibration-resistant
- Very safe at sea with no chlorine gas in bilge (due to sulphuric acid and salt water mixing)
- **Most versatile: Starting, Deep Cycle, Stationary**
- Lowest cost-per-month
- Lowest cost-per-cycle

#### **Disadvantages**

- Higher initial cost
- Water cannot be replaced if continually overcharged
- Voltage-regulated chargers must be used
- Charge voltage must be limited to extend life (13.5 to 13.8 volts maximum at 20°C)

### (AGM) ABSORBED ELECTROLYTE

#### **Advantages**

- **Ideal for standby or back-up applications**
- Higher charge and discharge currents
- Totally maintenance-free
- Air transportable
- Spill proof/ Leak proof
- Minimal corrosion thus physically compatible with sensitive electronic equipment
- Installs upright or on side
- Lower cost than gel cell batteries
- Very low to no gassing (unless overcharged)
- **Excellent for starting and stationary applications**
- Superior for shorter duration/higher discharges

#### **Disadvantages**

- ½ the cycle life of Gel or flooded Wet Cell in deep cycle applications
- Charge voltage must be limited (14.1 to 14.4 volts maximum at 20°C )
- Voltage-regulated chargers must be used
- Water cannot be replaced if continually overcharged

## WET CELL (FLOODED ELECTROLYTE)

### *Advantages*

- Lowest initial cost
- Water can be added (if accessible)
- Excellent for higher current applications
- **Certain designs are good for deep cycle applications**
- Replacements readily available

### *Disadvantages*

- Spillable
- Operates upright only
- Emits corrosive gases
- Cannot be installed near sensitive electronic equipment
- Maintenance required (if accessible)

There is not one single battery that is suited for all applications or weather conditions. Discuss your application with us in order to establish the best battery type for the job.

