

## Advanced SMART Battery

### SMART Battery for Long Lasting Power

The XetaPAK represents a fresh new approach for batteries that are used for remote, solar powered telemetry sites. The XetaPAK is the same size as, and is a drop-in replacement, for conventional lead acid batteries.

However, instead of being just a simple battery, the XetaPAK includes...

- MPPT (maximum power point tracking) solar panel controller
- Load current limiter
- Low voltage shutdown
- Battery temperature management
- Modbus logging

The XetaPAK is so reliable, invulnerable to abuse, and has such a long life you will never need to replace it at your remote site. By contrast, today's typical lead acid battery needs to be replaced much more frequently thereby requiring significant costs to deploy field resources and for repeated purchases of batteries.



### Technology Differentiators

- 5 year unconditional warranty.
- Uses safe, nonflammable LiFePO4 battery technology.
- A true 100% tested AH rating. Discharging the battery to its rated capacity will not damage nor limit the life of the battery, as is the case with conventional lead acid batteries.
- Rated for 3,000 80% charge/discharge cycles while still maintaining 80% capacity. No lead acid battery comes close!
- Rated for AH capacity at -20°C (-4F).
- Insulated enclosure and an internal battery heater uses surplus solar power to keep the battery cells warm at low temperature extremes.
- Integral maximum power point tracking (MPPT) solar controller extracts an additional 20% power from your solar panel at cold temperatures.
- Internal resettable current limiter is set at 2A/3A/10A depending on model. This prevents and provides a safeguard from sparks and wire frying if the output is shorted.
- RS232 or optional RS485 Modbus logging allows comprehensive monitoring of battery, solar panel, and load data.
- Charge/discharge efficiency is over 90%. Compared to a lead acid battery, the XetaPAK provides 10% more useful solar power.
- The voltage to load ratio precisely varies between 13.6 to 12V according to battery state of charge. Just reading your supply voltage tells you precisely how much charge is left in the battery. No guessing.
- Internal low voltage disconnect prevents over discharge.
- Patent pending technology.



## Technical Specifications

| General                     | XetaPAK 15                                    | XetaPAK 30                                    | XetaPAK 135*                                   |
|-----------------------------|---|---|--|
| Battery Capacity @ 250mA    | 15AH @ 25°C, 12AH @ -20°C                     | 30AH @ 25°C, 24AH @ -20°C                     | 135AH @ 25°C, 108AH @ -20°C                    |
| Self Discharge Rate         | 0.4AH per month                               | 0.8 AH per month                              | 3 AH per month                                 |
| Load Voltage                | 12.8V @ 100%<br>12.4V @ 50%<br>12V @ 0%       | 12.8V @ 100%<br>12.4V @ 50%<br>12V @ 0%       | 12.8V @ 100%<br>12.4V @ 50%<br>12V @ 0%        |
| Maximum Current Draw        | 2A Current limited with shutdown and 1s reset | 3A Current limited with shutdown and 1s reset | 10A Current limited with shutdown and 1s reset |
| Maximum Ambient Temperature | 60 °C   | 60 °C   | 60 °C  |
| Minimum Ambient Temperature | -30 °C  | -30 °C  | -30 °C   |

| Solar Controller                    | XetaPAK 15 | XetaPAK 30 | XetaPAK 135* |
|-------------------------------------|------------|------------|--------------|
| Maximum Open Circuit Panel Voltage  | 30V        | 30V        | 30V          |
| Maximum Panel Short Circuit Current | 3A         | 3A         | 7A           |
| Minimum Panel Voltage for Charging  | 10.5V      | 10.5V      | 10.5V        |
| Controller efficiency @ 600mA       | 97%        | 97%        | 97%          |

| RS232 Port          | XetaPAK 15 | XetaPAK 30 | XetaPAK 135* |
|---------------------|------------|------------|--------------|
| Baud Rate           | 115200 8N1 | 115200 8N1 | 115200 8N1   |
| Logging Update Rate | 1s         | 1s         | 1s           |

| Physical                 | XetaPAK 15            | XetaPAK 30            | XetaPAK 135*         |
|--------------------------|-----------------------|-----------------------|----------------------|
| Dimensions ( L x W x H ) | 6.49" x 3.88" x 4.94" | 6.49" x 7.31" x 4.94" | 12.6" x 7.55" x 9.5" |
| Weight                   | 5.2 lbs               | 10 lbs                | 41 lbs               |

## Contact

For more information or to schedule a demo, please contact us at **303.447.2745** or [sales@xetawave.com](mailto:sales@xetawave.com)



XetaWave is the ideal partner for the deployment of wireless and battery technologies that lead the industry in performance, functionality and reliability.

XetaWave provides an industry leading 5 year warranty on XetaPAK battery products.

All XetaPAK batteries are 100% designed, manufactured, and tested at its headquarters in Louisville, Colorado, USA.



**\* XetaPAK 135 is currently in development**