



an EnerSys® company

AlphaCell® FT Series

Pure Lead Long Life Battery



- Optimized for broadband applications
- Space-saving front terminal design for ease of maintenance
- 99.9% pure lead increases temperature and corrosion resistance
- Thin plates deliver large surface area, high power density and low resistance
- Fast charging with no limit
- 15+ year design life at 20°C (68°F)
- Up to 24 months shelf life at 20°C (68°F)

The AlphaCell® FT Series is a front terminal 12VDC VRLA AGM battery offering a Thin Plate Pure Lead (TPPL) technology with an exceptional float service life.

The AlphaCell FT battery is an innovative solution specially designed for light duty cycling applications that require long float service life in controlled temperature environments. The AlphaCell FT battery is built with TPPL technology minimizing corrosion and maximizing life

expectancy with higher power density and tolerant to a wide range of temperatures compared to traditional VRLA AGM batteries. These benefits lead to cost savings, due to reduced battery replacement and maintenance.

Our advanced robotic manufacturing process ensures the highest quality and accuracy. In addition, this energy storage offering requires no periodic watering and at the end of life, batteries are 99% recyclable.

AlphaCell® FT Series Specifications

| Model: | 100FT | 155FT | 170FT | 190FT | 210FT |
|--|---|---|---|---|---|
| Terminal: | Threaded Insert: Female M8 × 1.25 FT Adapter: Male M8 × 1.25 | Threaded Insert: Female M8 × 1.25 FT Adapter: Male M6 × 1.25 | Threaded Insert: Female M8 × 1.25 FT Adapter: Male M6 × 1.25 | Threaded Insert: Female M8 × 1.25 FT Adapter: Male M6 × 1.25 | Threaded Insert: Female M8 × 1.25 FT Adapter: Male M6 × 1.25 |
| Terminal Torque: | 8.0Nm (71in-lbs) | 8.0Nm (71in-lbs) | 8.0Nm (71in-lbs) | 8.0Nm (71in-lbs) | 8.0Nm (71in-lbs) |
| 1hr Capacity to 1.70VPC @ 20/25°C (68/77°F): | 67 / 70Ah | 106 / 110Ah | 114 / 119Ah | 123 / 129Ah | 142 / 148Ah |
| 3hr Capacity to 1.75VPC @ 20/25°C (68/77°F): | 85 / 87Ah | 133 / 175Ah | 144 / 148Ah | 160 / 164Ah | 177 / 182Ah |
| 8hr Capacity to 1.75VPC @ 20/25°C (68/77°F): | 97 / 99Ah | 150 / 153Ah | 165 / 167Ah | 183 / 186Ah | 200 / 204Ah |
| 10hr Capacity to 1.80VPC @ 20/25°C (68/77°F): | 99 / 100Ah | 153 / 155Ah | 168 / 170Ah | 187 / 190Ah | 204 / 207Ah |
| Float Voltage @ 20/25°C (68/77°F): | 2.28 / 2.27VPC | 2.28 / 2.27VPC | 2.28 / 2.27VPC | 2.28 / 2.27VPC | 2.28 / 2.27VPC |
| Impedance (1KHz): | 4.3mΩ @ 25°C (77°F) | 3.1mΩ @ 25°C (77°F) | 3.0mΩ @ 25°C (77°F) | 2.8mΩ @ 25°C (77°F) | 2.8mΩ @ 25°C (77°F) |
| Conductance: | 1193S | 1648S | 1695S | 1900S | 1920S |
| Short Circuit Current: | 2800A | 4200A | 4650A | 5000A | 5400A |
| Operation Temperature Range: | -40°C to 65°C | -40°C to 65°C | -40°C to 65°C | -40°C to 65°C | -40°C to 65°C |
| Nominal Voltage: | 12V | 12V | 12V | 12V | 12V |
| Dimensions* H × L × W (in): | 11.42 × 14.59 × 4.19 | 11.14 × 20.43 × 4.87 | 12.72 × 20.42 × 4.87 | 12.72 × 20.42 × 4.87 | 13.02 × 22.01 × 4.91 |
| Weight (lb): | 67 | 101 | 115 | 123 | 132 |

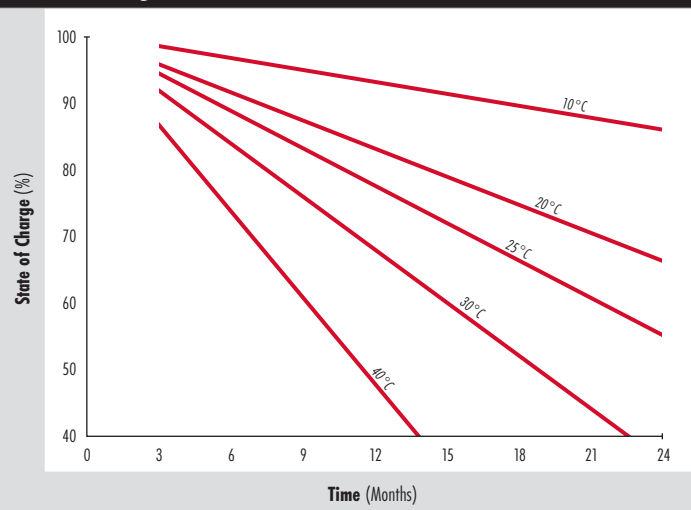
Constant Current Discharge Rate in Amps at 77°F (25°C) to 1.75VPC

| Discharge Time | 2min | 5min | 10min | 15min | 20min | 30min | 45min | 1hr | 2hr | 3hr | 4hr | 5hr | 8hr | 10hr | 12hr | 20hr | 24hr |
|----------------|-------|-------|-------|-------|-------|-------|-------|-------|------|------|------|------|------|------|------|------|------|
| 100FT: | 601.6 | 372.5 | 246.2 | 189.5 | 156.1 | 117.5 | 87.3 | 70.2 | 40.6 | 29 | 22.7 | 18.7 | 12.4 | 10.1 | 8.6 | 5.3 | 5.3 |
| 155FT: | 518.2 | 430.6 | 329.7 | 269.6 | 229.6 | 178.8 | 135.8 | 110.2 | 64 | 45.5 | 35.5 | 29.1 | 19.1 | 15.5 | 13.1 | 8.2 | 8.2 |
| 170FT: | 601.9 | 481.5 | 361.9 | 293.8 | 249.3 | 193.5 | 146.7 | 119 | 69.3 | 49.5 | 38.7 | 31.8 | 20.9 | 17.1 | 14.5 | 9 | 9 |
| 190FT: | 639.4 | 503.6 | 379 | 309.2 | 263.5 | 206.1 | 157.7 | 128.8 | 76.1 | 54.7 | 42.9 | 35.4 | 23.3 | 19 | 16.1 | 10 | 10 |
| 210FT: | 501.9 | 478.3 | 393.4 | 332 | 287.9 | 228.7 | 176.4 | 144.2 | 84.8 | 60.5 | 47.2 | 38.8 | 25.4 | 20.7 | 17.6 | 11 | 11 |

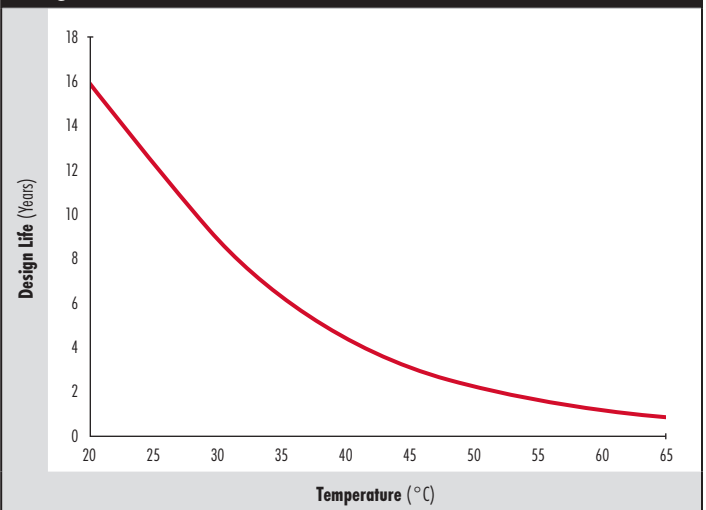
Constant Current Discharge Rate in Amps at 77°F (25°C) to 1.80VPC

| Discharge Time | 2min | 5min | 10min | 15min | 20min | 30min | 45min | 1hr | 2hr | 3hr | 4hr | 5hr | 8hr | 10hr | 12hr | 20hr | 24hr |
|----------------|-------|-------|-------|-------|-------|-------|-------|-------|------|------|------|------|------|------|------|------|------|
| 100FT: | 443.1 | 313.3 | 222 | 176.1 | 147.6 | 113.2 | 85.3 | 69 | 40.2 | 28.8 | 22.5 | 18.6 | 12.2 | 10 | 8.5 | 5.3 | 5.3 |
| 155FT: | 461.8 | 394.2 | 307.7 | 254.3 | 218.1 | 171.5 | 131.4 | 107.3 | 63 | 45.1 | 35.2 | 29 | 19 | 15.5 | 13.1 | 8.1 | 8.1 |
| 170FT: | 495.1 | 424.3 | 331.8 | 274.6 | 235.6 | 185.4 | 142.2 | 116.2 | 68.4 | 49.1 | 38.4 | 31.6 | 20.8 | 17 | 14.4 | 9 | 9 |
| 190FT: | 553.3 | 451.1 | 348 | 287.9 | 247.7 | 196.1 | 151.7 | 124.8 | 74.9 | 54.2 | 42.6 | 35.2 | 23.3 | 19 | 16.1 | 9.9 | 9.9 |
| 210FT: | 399.8 | 409.8 | 352.4 | 304 | 267.3 | 216.1 | 169.1 | 139.5 | 83.3 | 59.9 | 46.9 | 38.6 | 25.4 | 20.7 | 17.5 | 10.9 | 10.9 |

State of Charge vs. Time



Design Life



*Length dimensions are for the battery base to ensure tray fit.



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