

2018 Bronze Propeller Competition – Battery Pack Performance Data

December 18 , 2017

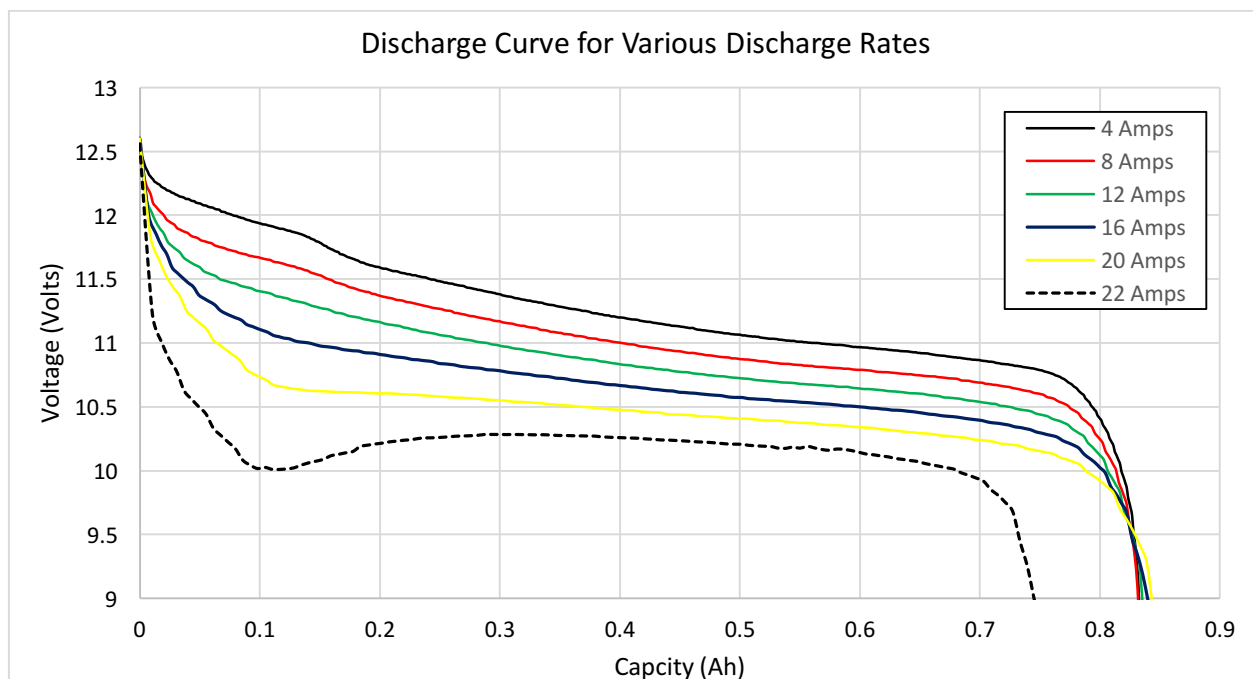
This document outlines the results of performance tests on the 2018 competition battery pack. The data was obtained using a computer controlled battery analyzer operating at room temperature. The battery was properly cycled and charged prior to all testing. All discharge rates were tested a minimum of two times to ensure repeatability (only one test for each rate is shown in the plot).

Battery Pack Information:

- Great Planes ElectrIFly LiPo 3S 11.1V 850mAh 25C Star
- Pack composition: 3 cells wired in Series
- Nominal Voltage: 11.1V
- Listed Capacity: 850 mAh
- Size & Weight: 2.1" x 1.2" x 0.95", 2.8 oz

Test Data:

- 6 discharge currents were examined: 4, 8, 12, 16, 20, and 22 Amps
- The plots display measure pack voltage vs. capacity (Ah)
- Cutoff Voltage: 9V



Notes & Warnings!

- Temperature impacts battery performance (high ambient temperatures and/or poorly ventilated installations can notably diminish battery performance – consider this aspect during design)

- A specific completion Electronic Speed Controller (ESC) may be required to protect batteries and to simplify purchasing (watch web page for additional information)

References:

If you are interested in learning more about batteries the following websites have great information and references:

http://batteryuniversity.com/learn/article/lithium_based_batteries

<http://www.buchmann.ca/buchmann/>