Victron & Redflow ZCell

https://www.zcell.com/

Technical details here:
https://faq.zcell.com/content/1/11/en-us/what-are-the-technical-specifications-of-a-zcell-battery.html

Note that the ZCell bundle has first been launched only available in Australia. However, the underlying Redflow ZBM2 battery is available worldwide already.

The ZCell bundle (including external enclosure and Battery Management System unit) will be made available worldwide later (expected to be early in 2017)

Compatible Victron products

- All 48V Multis and Quattros.
- All 48V solar chargers
- Adding a Color Control GX is recommended but not required

Charge profile

1. Charge voltage 57.6V (up to 50 Amps per battery, and current per battery self-limits if you limit the voltage)
2. Linear charge all the way from empty to full (all charge phases are the same - same ‘flat’ voltage).
3. No need for any sort of battery ‘conditioning’ cycling at all

Charger settings:

1. Set both absorption and float voltage to 57.6V
2. disable storage mode.
3. absorption time and bulk protection are not relevant / not required
4. using Assistants, such as the ESS Assistant, is possible but not required.

Tricks and traps:

- The Redflow ZCell battery is designed to be charged up to 100% SOC and discharged right down to 0% SOC
- The default cutoff voltage in the battery is 36V. So you can configure the disconnect voltage on a Multi or Quattro right down to the minimum allowed to get all the energy out of each cycle
- There are some assistants that will stop operating a long way above 0% SOC to 'protect' the battery
- These 'protections' can and should be disabled for the ZCell to get the most out of it. For instance:
    - If you use Hub-4, turn off the 'Battery Life' flag under Settings→Wired AC Sensor→Grid Meter or Hub-4 will stop with lots of energy left still in the battery
    - If you use Hub-3, use 'custom' configuration when setting it up, and change the SOC cutoff limits to 1% and 2% (very low) otherwise (again) the defaults (much higher SOC

stop values) will stop Hub-3 from using a large amount of the battery energy that could otherwise be accessed

Color Control GX

Follow this procedure on the ZCell website to show the ZCell SOC on the Color Control GX.

Also see this other FAQ item on the ZCell website:
https://faq.zcell.com/content/10/54/en-us/automatic-start-for-a-multiplus-connected-to-a-powered_down-ccgx.html

The Color Control GX does not yet have the option to read and show any other ZCell parameters. This is intended to be added later.

Disqus

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