



Series lithium battery pack configuration



Overview

The single-cell configuration is the simplest battery pack; the cell does not need matching and the protection circuit on a small Li-ion cell can be kept simple. Typical examples are mobile phones and tablets with one 3.60V Li-ion cell. Other uses of a single cell are wall clocks, which. Portable equipment needing higher voltages use battery packs with two or more cells connected in series. Figure 2 shows a battery pack with four 3.6V Li-ion cells in series, also known as 4S, to produce 14.4V nominal. In comparison, a six-cell lead acid. There is a common practice to tap into the series string of a lead acid array to obtain a lower voltage. Heavy duty equipment running on a 24V battery bank may need a 12V supply for an. The series/parallel configuration shown in Figure 6 enables design flexibility and achieves the desired voltage and current ratings with a standard cell size. The total power is the sum of voltage times current; a 3.6V (nominal) cell multiplied by 3,400mAh produces. If higher currents are needed and larger cells are not available or do not fit the design constraint, one or more cells can be connected in parallel. Most battery chemistries allow.



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