

Application Note

DC Busbar Selection for Battery Combining

Introduction

When installing more than a single Fortress battery product (eVault Max or eFlex) it becomes necessary to combine the DC outputs of the individual batteries in parallel before entering the inverter(s) or charge controller(s).

Our recommended method is by the use of a bus bar. A bus bar is most commonly made of 110 electrical copper though sometimes aluminum is used in larger systems for cost or weight reasons. Bus bars are extremely common in telecom and industrial sites, where high power levels or dense power distribution lends itself to the increased efficiency of a bus bar. While bus bars can be custom made, using copper bars and standard metal working tools, we often recommend a variety of commercially available products to simplify installation and reduce cost.

Bus Bars - Commercial Off The Shelf

Blue Sea PowerBar 1000A - 12 Terminal Bus Bar - Bare w/Standoff https://www.bluesea.com/products/1991/PowerBar 1000 - 12 3 8in Terminal Studs

Victron Lynx Power In - 1000A - 8 Terminal Bus Bar - w/Enclosure https://www.victronenergy.com/dc-distribution-systems/lynx-power-in

Stormpower Ground Bus Bars - Multi-Terminal - 100A to 2000A - Bare w/Standoff https://stormpowercomponents.com/grounding-2/ground-bars-grounding-bus-bar-kits/

Panduit Ground Bus Bars - Multi-Terminal - 500A to 1000A - Bare w/Standoff https://www.panduit.com/en/products/grounding-bonding/grounding-busbars-strips/grounding-bu sbars.html

Blue Sea PowerBar 600A - 4 Terminal Bus Bar - Bare w/Standoff https://www.bluesea.com/products/2104/PowerBar 600A BusBar - Four 3 8in-16 Studs

Blue Sea PowerBar 600A - 8 Terminal Bus Bar - Bare w/Standoff https://www.bluesea.com/products/2107/PowerBar_600A_BusBar_-_Eight_3_8in-16_Studs



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Bus Bars - Custom Solutions

Stormpower Ground Bus Bars - 100A to 2000A - Bare w/Standoff https://stormpowercomponents.com/grounding-2/ground-bars-grounding-bus-bar-kits/



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About Fortress Power

Our mission is to provide compact, user-friendly, and affordable energy storage solutions using the latest technology for all homes and businesses. Fortress solar energy storage batteries can easily integrate with new and existing PV systems and work with a wide range of existing inverter and charge controller manufacturers for ease in system design.

Contact Information

Address:

Corporate Headquarters 505 Keystone Rd Suite D Southampton, PA 18966 USA

Website: www.fortresspower.com

Phone: (877) 497-6937

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