NEOVOLTA

Technical Product Notes

Single NV16KAC OR 12KAC Inverter Battery Configurations

DATE CREATED:	TN NUMBER:	PREPARED BY:
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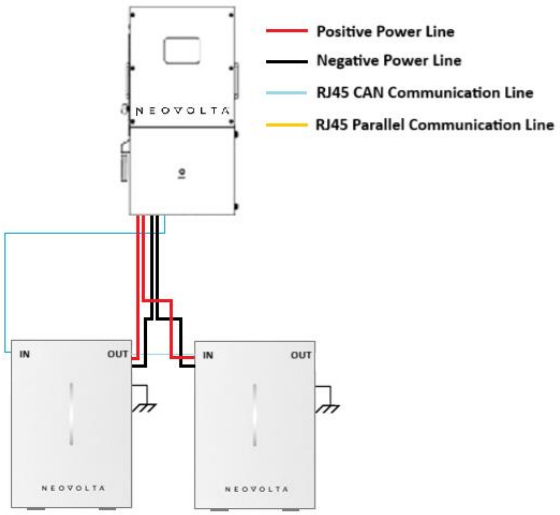
The following battery configurations are approved for use with NV16KAC and NV12KAC hybrid inverters and the NVPlus-10.2 batteries.

- Minimum Battery Requirement:
  Each NV16KAC or NV12KAC inverter requires at least two NVPlus-10.2 batteries to ensure proper operation and performance.

Two Batteries



Note: To ensure balanced power distribution and optimal system performance, verify that all inverter-to-DC bus cables are of equal length, and likewise, all battery-to-DC bus cables are matched in length.

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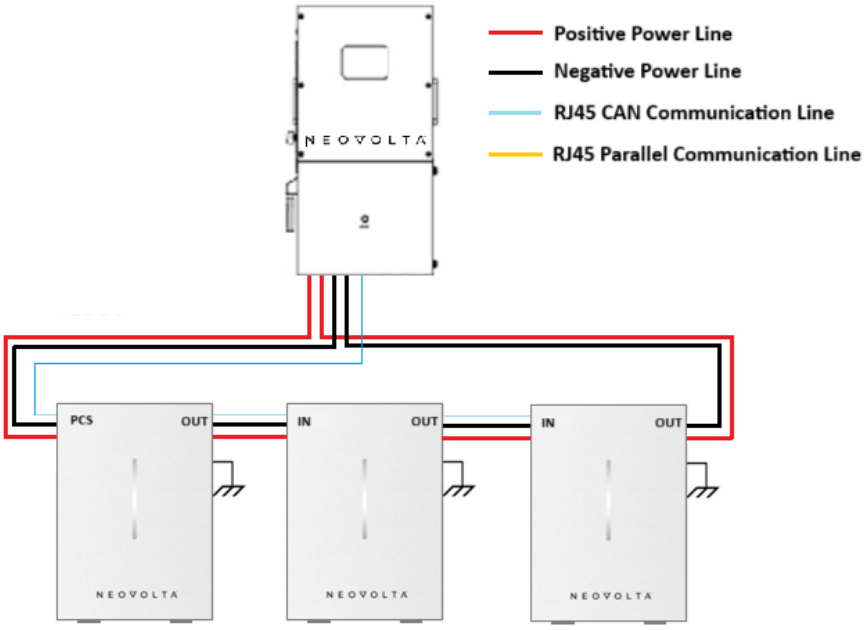
Three Batteries:



Note: To ensure balanced power distribution and optimal system performance, verify that all inverter-to-DC bus cables are of equal length, and likewise, all battery-to-DC bus cables are matched in length.

Alternative Battery Wiring Option:
Each NVPlus-10.2 battery can be connected to a common DC bus using the provided battery cables. From this common DC bus, install two identical sets of cables (2 × POS and 2 × NEG), supplied by the customer, to connect the DC bus to the NV16KAC inverter. These cables must be equal in material, length, and gauge to ensure balanced current flow.

Note:
The DC bus bar must be rated for 400A.

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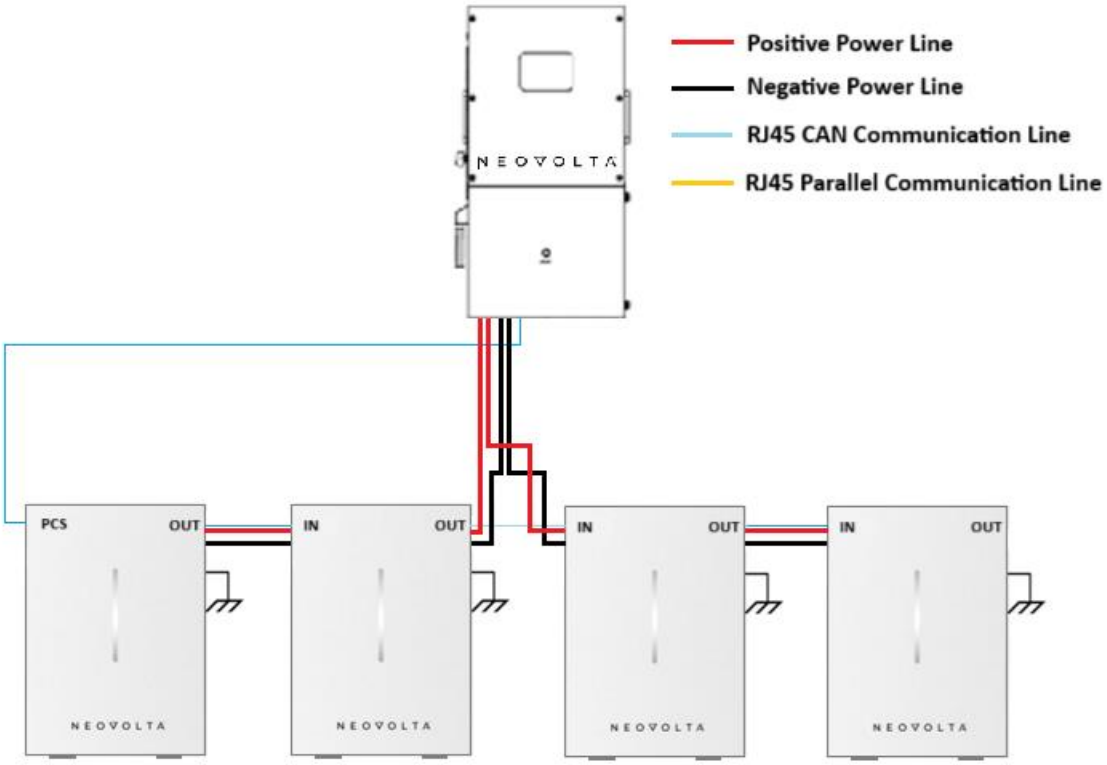
Four Batteries:



Note: To ensure balanced power distribution and optimal system performance, verify that all inverter-to-DC bus cables are of equal length, and likewise, all battery-to-DC bus cables are matched in length.

Important Installation Note:

In this configuration, do not extend the battery cable length between battery modules, or between the inverter and battery modules. Always use the factory-supplied battery cables provided with the NVPlus-10.2 to maintain proper performance and safety.

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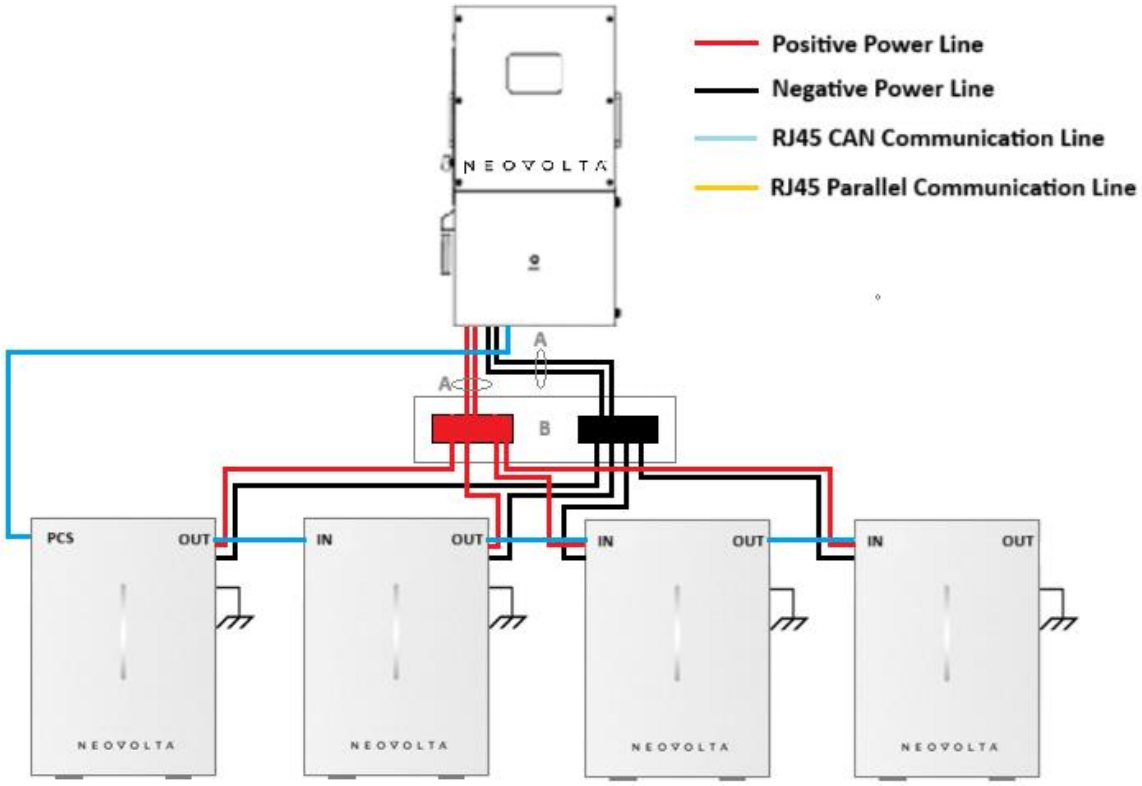
Four Batteries with common DC-Bus:



Note: To ensure balanced power distribution and optimal system performance, verify that all inverter-to-DC bus cables are of equal length, and likewise, all battery-to-DC bus cables are matched in length.

Important Installation Note:
If battery cables between batteries or between the battery and inverter need to be extended, a common DC bus must be installed.

- A: Use two sets of 2/0 AWG battery cables (2 × POS and 2 × NEG) to connect the inverter battery terminals to the common DC bus.
- B: The DC bus bar must be rated for 400A.

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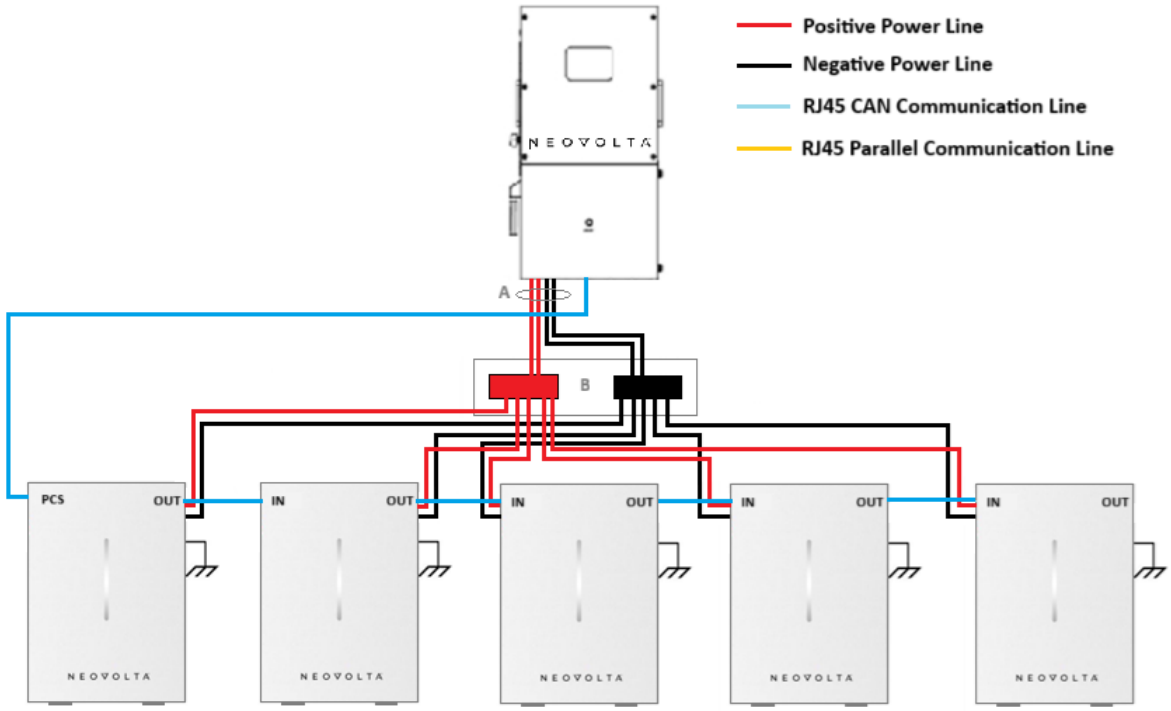
Five Batteries:



Note: To ensure balanced power distribution and optimal system performance, verify that all inverter-to-DC bus cables are of equal length, and likewise, all battery-to-DC bus cables are matched in length.

Note:
Install a common battery DC-Bus to connect the inverter to batteries.

A: Use two sets of 2/0 battery cables to connect the inverter battery terminals to the common DC-Bus.

B: The DC-Bus bar must be rated at 400A.

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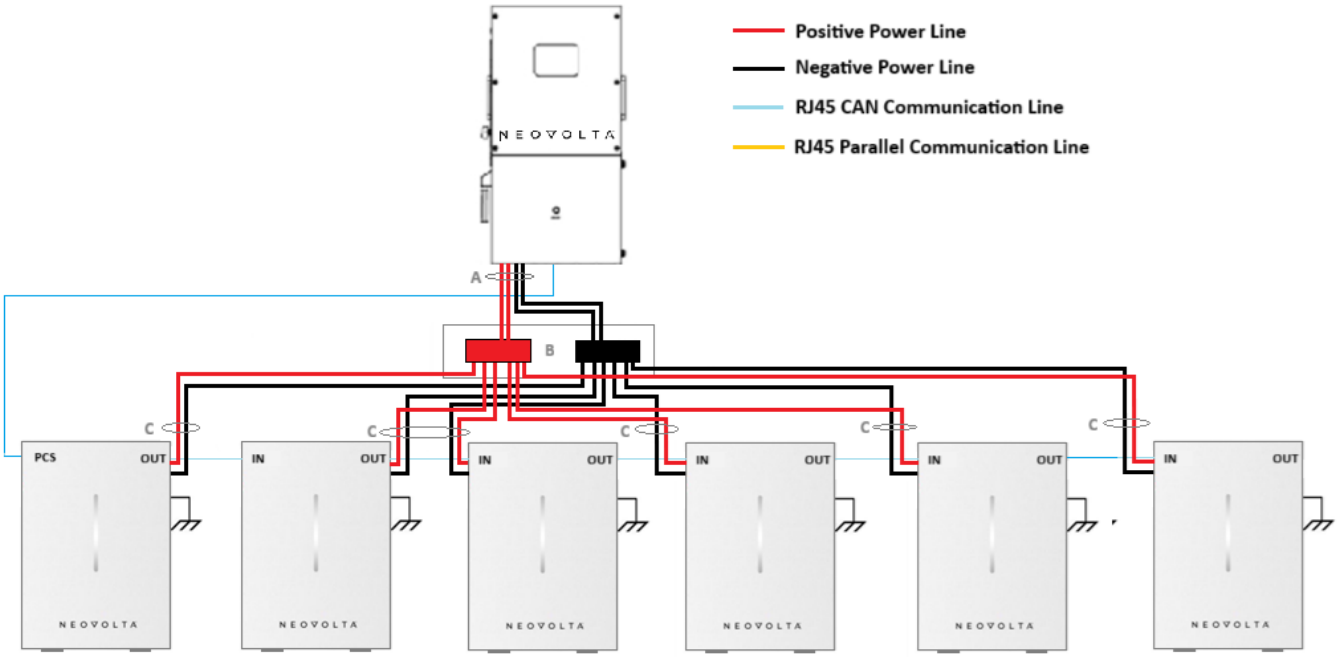
Six Batteries:



Note: To ensure balanced power distribution and optimal system performance, verify that all inverter-to-DC bus cables are of equal length, and likewise, all battery-to-DC bus cables are matched in length.

Note:
Install a common battery DC-Bus to connect the inverter to batteries. With six batteries, the installer can interconnect two batteries to each other, creating three sub battery packs. These three sub battery packs then are connected to a common DC-Bus.

A: Use two customer-provided sets of 2/0 battery cables to connect the inverter battery terminals to the common DC-Bus.

B: The DC-Bus bar must be rated at 400A.

C: You can use the provided 2/0 battery cables or if custom length is needed to ensure they are all the same length material and size 2/0 AWG.

Version	Revision Date	Brief Description of Change
V1.0	12/8/2025	Document Published