GOODS CONTAINERS

Parallel capacitor on high voltage side of inverter

Overview

How much capacitance should a capacitor bank have in parallel?

Thus, the required capacitor bank should have a total capacitance of approximately 942 µF in parallel. Hence, the proper value of capacitor bank connected in parallel cancels out the reactive power drawn by the inductive load. The power factor improves from 0.8 to 0.95 as needed according to the system requirement.

What is a DC-link capacitor in a traction inverter?

Figure 1. Simplified Block Diagram of a Traction Inverter The DC-Link capacitor is a part of every traction inverter and is positioned in parallel with the high-voltage battery and the power stage (see Figure 1). The DC-Link capacitor has several functions, such as to help smooth voltage ripples, filtering unwanted harmonics and reducing noise.

Why should a capacitor bank be parallel to a load?

Due to the above reasons, a parallel arrangement of capacitors to the load ensures: Reactive Power Support: By being parallel to the load, the capacitor bank supplies reactive power locally, reducing the reactive power demand on the source or transformer.

What is a parallel inverter?

In the last article, we have learned about series inverters where commutating components, inductor, and capacitor are connected in series with the load. In this article, let us learn about parallel inverters. In parallel inverters, the commutating components are connected in parallel with the load, and hence the inverter is named Parallel Inverter.

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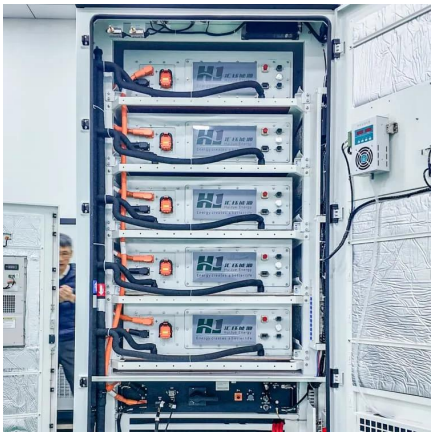

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