

Bidirectional charging of photovoltaic containers from Uzbekistan at power stations





Overview

How can bidirectional charging/discharging a battery achieve maximum PV power utilization?

In addition, with the proposed strategies, the bidirectional charging/discharging capability of the battery is able to achieve the maximum PV power utilization. All the proposed strategies can be realized by the digital signal processor without adding any additional circuit, component, and communication mechanism.

What is bidirectional power flow control?

Therefore, bidirectional power flow control strategies are proposed to achieve the maximum PV power utilization as well as to realize the hybrid charging methods. In addition, with the proposed strategies, the bidirectional charging/discharging capability of the battery is able to achieve the maximum PV power utilization.

What are the applications of bi-directional converters?

Applications of bi-directional converters 1.1. Power storage applications 1.2. EV charger applications Bi-directional topologies and associated reference designs 2.1. DC/DC topologies 2.1.1. Active clamp current fed full-bridge 2.1.2. DAB 2.1.3. Fixed frequency LLC 2.1.4. Phase shift LLC 2.2. AC/DC topologies.

What is the difference between ZVS & ZCS MOSFET?

ZVS for primary mosfet. ZCS for the secondary SiC Green waveform shows the secondary high voltage SiC current. Blue waveform shows the GaN switch current indicated ZVS. At very light loads and lower voltage range, primary phase shift cannot guarantee ZVS turn-on of the GaN switches.



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Bidirectional Power Flow Control of Solar PV Array Based

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