

SolarInnovate Energy Solutions

Photovoltaic energy storage inverter igt

Our Lifepo4 batteries can be connected in parallels and in series for larger capacity and voltage.



Overview

For solar inverter applications, it is well known that insulated-gate bipolar transistors (IGBTs) offer benefits compared to other types of power devices, like high-current-carrying capability, gate control using voltage instead of current and the ability to match the co-pack diode with the IGBT. What is IGBT in solar inverter?

In solar inverter applications, IGBTs (Insulated-Gate Bipolar Transistors) offer benefits compared to other types of power devices, such as high-current-carrying capability, gate control using voltage instead of current, and the ability to match the co-pack diode with the IGBT.

Can IGBT drive power supplies be used in power modules?

In addition, IGBT drive power supplies provide reliable electrical isolation so that the control system can not be affected by the interference often caused by IGBT. However, despite the several advantages, there are still some challenges to consider concerning the application of IGBT technology in power modules.

Why is IGBT a key protection object of a power inverter?

It is very sensitive to the temperature, voltage and current of the device. In case of even a slight stand exceeding, it becomes incompetent and cannot be repaired. IGBT damage means the inverter must be replaced or overhauled. Therefore, IGBT is the key protection object of the power inverter. The above is the three modes of IGBT failure.

What happens if IGBT damage a power inverter?

At the same time, IGBT is also one of the most unreliable components in the power inverter. It is very sensitive to the temperature, voltage and current of the device. In case of even a slight stand exceeding, it becomes incompetent and cannot be repaired. IGBT damage means the inverter must be replaced or overhauled.

What are IGBTs used for?

For this reason, they are often used as switching devices in AC/DC inverters circuits for motor drive systems, uninterruptible power supplies, and other applications. IGBTs are also often found in solar inverters, where they perform the key function of converting DC from solar cells to the AC required by various electrical equipment.

What is the voltage range of a photovoltaic inverter?

The bus voltage of the photovoltaic system is very high, and the voltage range is 1000V-1500V. Both ends of the IGBT drive power supply in the photovoltaic inverter will bear this high voltage, so the IGBT drive power supply must be the reinforced insulation, and the isolation voltage should be high.

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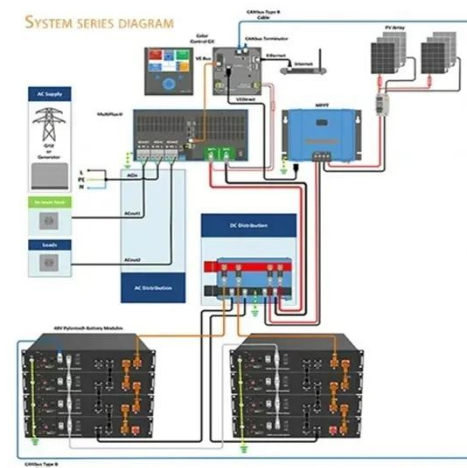


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