

### **SolarInnovate Energy Solutions**

# **Uninterruptible power supply live load**





#### **Overview**

What is an uninterruptible power supply system?

Uninterruptible Power Supply System When utility mains are not available, electricity can be supplied from a source such as a standard connected equipment UPS, which provides power supply. UPS is mostly used for critical loads and is kept between commercial utility mains.

What is an uninterrupted power supply (UPS) system?

Abstract. In the modern world, when there is a power outage or a power failure, telecommunication systems, computer systems, and many other critical equipment, such as medical equipment, require uninterrupted power to support their operation. Uninterruptible power supply (UPS) systems are used for this purpose.

How do UPS systems work?

Such UPS systems use energy storage technologies such as batteries or flywheels to provide power to loads in the absence of applied power. Typically, static power electronics such as fast-switching high-current insulated gate bipolar transistors (IGBTs) are used to convert power.

Why is a battery important for an UPS system?

UPS STATIC UNINTERRUPTIBLE POWER SUPPLIES TECHNICAL GUIDE 17 ONTENTS WWW.LEGRAND.COM Batteries are essential for the UPS system: they ensure continuity of power supply by providing energy to the inverter (for the required period) when there is no power supply . It is therefore essential that they are always connected, functioning, and charged .

What happens if a utility main is not available?

When utility mains are not available, electricity can be supplied from a source such as a standard connected equipment UPS, which provides power supply. UPS is mostly used for critical loads and is kept between commercial utility



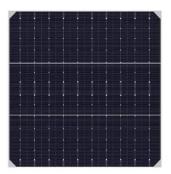
mains. In the event of a power outage or other anomaly, UPS instantly switches to its own power from the grid.

What are the components of a UPS system?

Components: Parts of a typical UPS system are an inverter, which transforms stored DC power back into AC power after a power loss, a battery, which stores electrical energy, and a rectifier, which converts incoming AC power to DC power for charging the internal battery.



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. . .

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