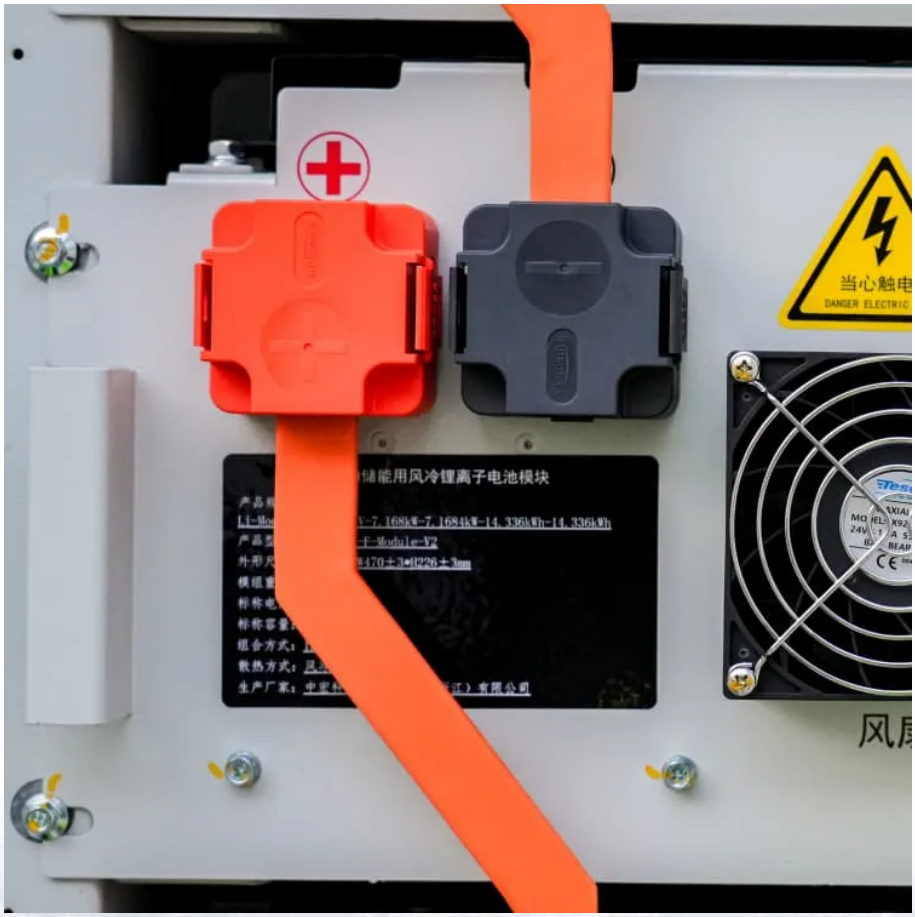
BUHLE POWER

Two-way charging protocol for foldable containers used in drone stations



Overview

How does a wireless drone docking station work?

Fig. 3: Electrical scheme of the proposed wireless drone docking station, which consists of an ETU and an ERU. The system includes three wireless charging modules connected in parallel at the transmitter side. On the receiver side, the wireless charging modules can be connected in series or parallel.

What is a drone charging dock?

Drone charging docks are specialized stations where drones can land to recharge, undergo maintenance, or be inspected as needed. These stations are equipped with navigation systems that enable drones to connect, either physically or wirelessly, to the charging infrastructure.

How to extend drone power autonomy?

One of the most promising solutions to extend drone power autonomy is the use of docking stations to support both landing and recharging of the drone. To this end, we introduce a novel wireless drone docking station with three commercial wireless charging modules.

Can a foldable coil and charge station be used for wireless charging?

The most suitable wireless charging technique for UAVs is inductive power transfer (IPT). In this paper, a novel foldable coil and charge station design is proposed for the wireless charging of UAVs. IPT is provided by receiver and transmitter coils placed on the drone legs and the charging station, respectively.

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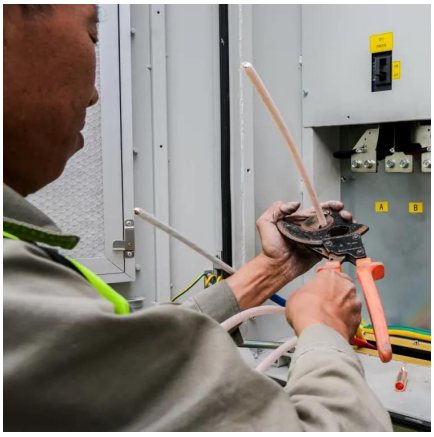

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