

Abstract

**MULTI-SOURCE HYBRID POWER SUPPLY AND DISTRIBUTION
CONTROL SYSTEM OF TRAVEL TRAILER AND CONTROL METHOD
THEREOF**

5

The invention discloses a multi-source hybrid power supply and distribution control system of a travel trailer and a control method thereof. The system comprises a power source detection module, a combined logic controller, a PFC controller, an AC/DC converter, a DC/DC converter, an inverter boost circuit and a storage battery. According to the method, detection and identification are carried out during multi-source hybrid power supply, commercial power or an external generator is preferentially used for supplying power to an electric appliance, a storage battery for daily use is charged at the same time, and the storage battery for daily use is controlled not to discharge, thereby achieving an objective of saving limited energy in the travel trailer; when power is supplied through power generation by driving or an auxiliary power source only, the storage battery is charged; and when electric energy of the storage battery is limited, an original storage battery of the travel trailer maintains basic lighting and an electric appliance with low energy consumption in the travel trailer, and the storage battery for daily use supplies power to an electric appliance with high energy consumption. According to the invention, power supply and distribution are more reasonable and efficient, and a utilization rate of electric energy is increased; a service life of the storage battery for daily use is prolonged; a maintenance efficiency is improved; and the invention has a wide use and development space.

(FIG. 2)