

A-Core Container

Single chip microcomputer production three-phase inverter

Warranty
10 years

LiFePO₄

Intelligent BMS

Wide Temp:
-20°C to 55°C



Overview

Does a microcontroller based inverter incorporate machine intelligence into its design?

The inverter described in Ref. 24 is a single-stage, microcontroller-based inverter with a high voltage gain, but it does not incorporate machine intelligence into its design. At the end, only the inverter presented in Ref. 1 has all the same features mentioned for the proposed inverter in this paper.

What is a multi-port three-phase inverter?

The present research paper sets forth a multi-port three-phase inverter. This structure is based on single-stage conversion, and besides employing six switches of the classic single-input inverter, it only uses one extra switch. This structure suits such applications as hybrid renewable energy systems as it boosts voltage.

What is a dual-input single-output three-phase inverter?

Two dual-input single-output three-phase inverters are discussed in Refs. 1, 2. In the topology developed by Ref. 2, replacing the two inductors of the classic impedance source inverter with two transformers forms a new multi-port inverter. In this inverter, the DC-link voltage is a three-level signal with a specific switching frequency.

How does a 220V 50Hz inverter work?

The 220V, 50Hz AC power supply is stepped down by the transformer, and is converted into DC power by rectification and filtering, and the AC to DC conversion is completed, and then converted into an AC power source whose frequency is adjustable through the inverter. The overall circuit design is shown in Figure 1.

What is STM32F103 inverter?

Its main controller uses 32-bit arm series single chip microcomputer

STM32F103. The inverter part uses three-phase half bridge. The modulation mode selects SPWM modulation technology of third harmonic injection, and uses average value feedback control at the same time.

What is a dual-source inverter?

This paper is an attempt to provide a dual-source inverter, an intelligent inverter topology that links two isolated DC sources to a single three-phase output through single-stage conversion. The converter is designed to be utilized in hybrid photovoltaic fuel cell systems, among other renewable energy applications.

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