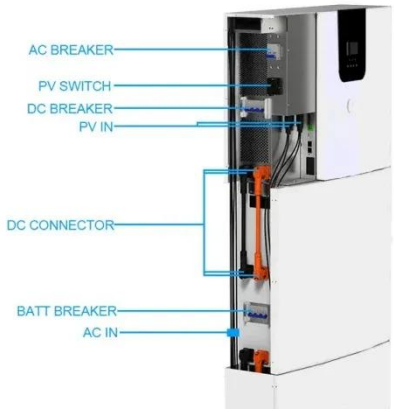
AC DC hybrid microgrid structure

Overview

Furthermore, taking practical considerations into account, two types of AC/DC hybrid microgrid structures are designed for grid-connected and islanded states. The structure leverages the quick response characteristics of. In this paper, we study the modeling, the control, and the power management strategy of a grid-connected hybrid alternating/direct current (AC/DC) microgrid based on a wind turbine generation system using a doubly fed induction generator, a photovoltaic generation system, and storage elements. In order to reduce the economic costs, enhance the efficiency, and improve the structural stability of microgrids, this paper proposes a novel AC/DC hybrid microgrid structure. This structure, based on Silicon Controlled Converters (SCCs) and Polarity Reversal Switches (PRSs), enables bidirectional. DC Micro-Grid consists of DC-Line, transformer, AC and AC/apply switch controller, power-electronics, capacitors Renewable Energy sources and loads. Transformer step-down the AC and supply parameter and then that frequency quantity gets rectified by rectifier Auto DC for DC-line bus, capacitors are.

AC DC hybrid microgrid structure



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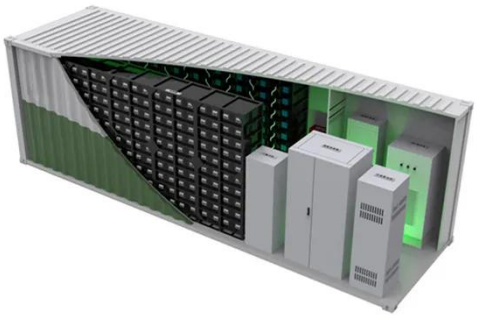

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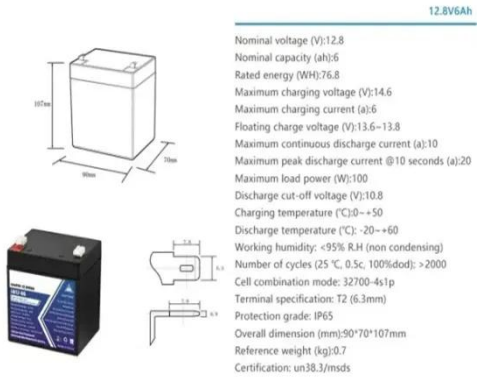

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