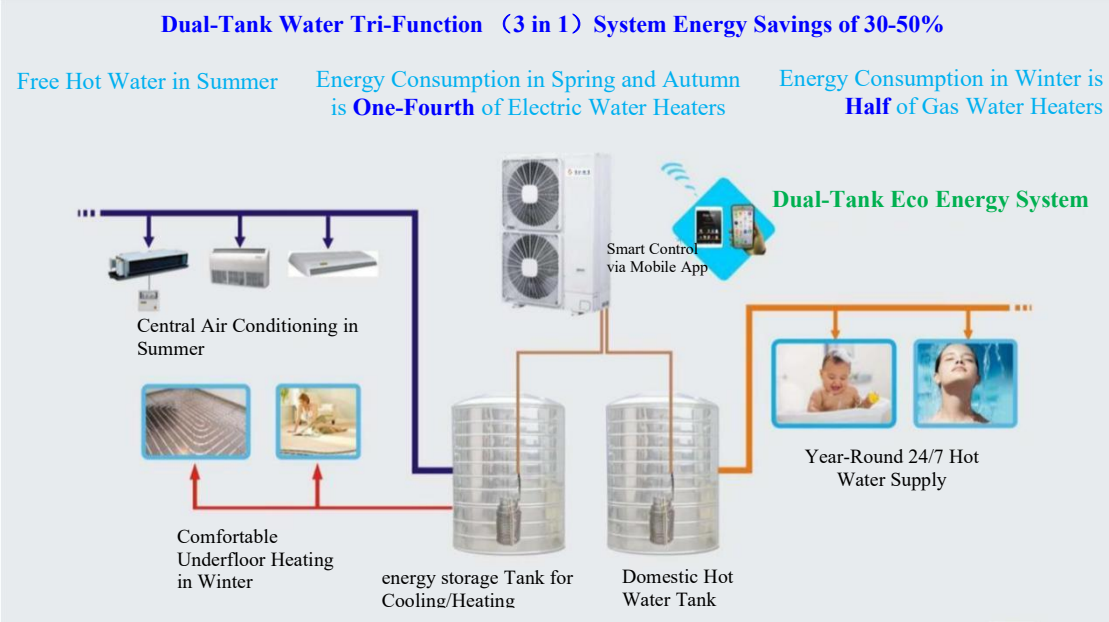
Dual-Tank Water Tri-Function(3 in 1)

(Cooling, Heating, and Hot Water) High-Efficiency Energy-Saving Comfort System



The value brought to users by the dual-tank energy storage system includes:

In addition to harnessing the distributed, stratified, and zoned energy-saving characteristics of our' multi-split Freon system, the water-mediated multi-split system overcomes the following drawbacks of the Freon-based system:

1. The high-pressure, ultra-long piping of Freon refrigerant entering the indoor circulation often results in Freon leakage, leading to indoor air pollution and adversely affecting respiratory health.

2. The phase-change direct expansion heat exchange of Freon refrigerant inevitably involves sudden temperature fluctuations, resulting in uneven temperature distribution of indoor air molecules. The end-point temperature control of the Freon system offers poor comfort, potentially harming human peripheral nerves and contributing to "air conditioning sickness, thus posing health risks.

3. When Freon refrigerant enters indoor terminals, any occurrence of fire will inevitably result in significant Freon leakage. Freon is colorless and odorless at room temperature, but it produces highly toxic substances when exposed to high temperatures, which can instantly incapacitate individuals, severely increasing the risk of casualties.

4. Conventional multi-split Freon systems do not support domestic hot water functionality and cannot provide radiant floor heating via water-based underfloor coils.

our Multi-Split Water-Mediated System

Firstly, it operates on a low-pressure water-mediated circulation with differential temperature heat exchange for temperature control, eliminating sudden temperature fluctuations. This ensures balanced temperature distribution of air molecules, resulting in high comfort levels.

Secondly, the water-mediated circulation system not only poses no fire hazards but also aids in fire suppression, thereby increasing escape opportunities.

Thirdly, the water-mediated terminal circulation system of our is isolated from the main unit by a energy storage water tank. When indoor temperature fluctuations cause the water-

mediated system's pipes to expand and contract, any resulting air bubbles are released into the non-pressurized storage tank without affecting the heat pump's operation. Additionally, any impurities or debris in the indoor pipes will circulate into the storage tank and settle at the bottom, thereby having no impact on the heat pump unit. This design avoids the common issues found in conventional water systems, such as air bubbles and blockages in the indoor circulation pipes, which can lead to main unit malfunctions. It also avoids the extensive and complex maintenance workload associated with large water piping and fittings.

Fourthly, the heat pump main unit module employs an immersion-type water-Freon heat exchanger that is gravity-seated within the energy storage tank. The minor oscillations induced by Freon circulation make scaling unlikely, which has minimal impact on heat exchange efficiency and results in a low failure rate for the heat pump main unit module.

Fifthly, the energy storage tank can utilize off-peak electricity for energy storage and release heating or cooling during peak electricity periods. Off-peak electricity costs about one-third of peak electricity prices, allowing users to save money by using more off-peak electricity. Additionally, when the heat pump main unit operates at night, the lower ambient temperature results in a smaller temperature differential for heat transfer. This higher efficiency in cooler nighttime conditions during the summer further reduces costs.

Sixthly, our' dual-tank high-efficiency energy system can provide year-round, 24/7 domestic hot water based on user needs. This hot water functionality significantly enhances the quality of life for users (with the second tank dedicated to domestic hot water).

Seventhly, the dual-tank energy system's heat pump employs an alternating defrost mode. Since it has accessible heat, the defrosting efficiency is high, and other modules can maintain the temperature of the storage tank. This ensures effective indoor heating during winter, a level of performance that Freon systems cannot achieve.

Eighthly, the energy required for cooling, heating, and domestic hot water accounts for approximately 70% of the total energy consumption of a building. Using water for energy storage is the optimal solution. The dual-tank energy storage system conveniently integrates with distributed photovoltaic power generation, micro-wind power generation, and elevated water tank storage methods. This approach liberates users from the constraints of traditional centralized energy systems. A hybrid energy storage method is currently the preferred choice for eco-friendly homes, utilizing sunlight, air, and water to create a harmonious living environment. The blessings of nature suffice.

Ninthly, having a dual-tank water energy system significantly enhances the survival chances of individuals within the environment in cases of water and power outages due to disasters such as fires, earthquakes, wars, or hurricanes. This is an incredibly beneficial and wise choice.

Technical Excellence:

- Our heat pump uses Japan's Daikin compressors.
- The system focuses on practical functionality, providing comfortable, healthy, and safe cooling in summer, stable heating in winter, and constant-temperature, constant-pressure hot water year-round.
- It significantly reduces operating costs and ensures system reliability without frequent failures.
- Different technical solutions vary in initial investment, operating costs, and system reliability.
- Users should make informed choices based on their specific needs, not merely brand or manufacturer.