

# ecodan<sup>®</sup>

## Next generation comfort technology

Designed to meet the growing demand for all-electric, environmentally friendly solutions, ecodan is a whole-home, all-in-one hydronic system that delivers heating, cooling, and domestic hot water for residential and light commercial spaces.

ecodan pairs with hydronic distribution systems to provide heating, cooling and domestic hot water in a home or building. At its core is an all-electric, inverter-driven heat pump, paired with an integrated Hydrobox which circulates heated or cooled water through fan coils, radiators, baseboard heaters, underfloor heating, or heat emitters. Making the system versatile for year-round comfort.

Beyond space conditioning, the system can also provide domestic hot water when paired with an indirect tank, supplying hot water for showers and to the taps. This makes ecodan a comprehensive solution for both heating, cooling, and domestic hot water needs.

Hyper-heating outdoor units are available in 2, 3, and 4-ton capacities (24,000, 36,000, and 48,000 BTU/H), making ecodan suitable as the primary source of heating, cooling and domestic hot water for single-family homes, multi-family residences, and other light commercial applications.

### Smart Design Advantages

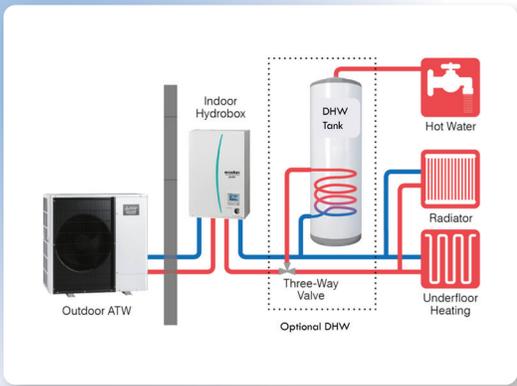
- **No Freezing Risk:** Because the system is an R2 split system, it uses the refrigerant from the outdoor unit to the hydrobox. There is no water pipes exposed to ambient temperatures, eliminating the need for glycol or heat trace.
- **Boiler Integration:** ecodan can interlock with an existing boiler as a backup heat source.
- **Cooling Option:** The system can also deliver cooling during warmer months.

### System Components

- **Hydrobox:** All key components are built into the Hydrobox for streamlined installation and easy maintenance. It supports a diverse set of installations and fits neatly in indoor spaces.
- **Outdoor Units:** Ultra-quiet operation, a sleek compact design and equipped with patented h2i hyper heating technology



ecodan Hydrobox  
indoor unit



Quiet, efficient, and future-ready, ecodan is an ideal solution for single- and multi-family homes that wish to upgrade from old boiler systems, and for new build projects that wish to prioritize high efficiency heating and cooling operation and domestic hot water.

See full details and technical documents at [MitsubishiPro.com](https://www.mitsubishi-pro.com)

## Features and details

Features	
<b>All-in-one Hydrobox</b>	Designed with front-access serviceability, the All-in-one Hydrobox includes the pump, expansion vessel, magnetic filter, booster heater, and plate heat exchanger.
<b>High-flow Temperature Performance</b>	Ecodan is capable of delivering hot water up to 158°F outlet water even in low ambient temperatures.
<b>Hyper-heating</b>	Hyper-Heating INVERTER® ecodan® models provide heating even with ambient outdoor temperatures as low as -22 °F, producing up to 100% heating capacity at 5° F. These units offer year-round comfort even in extreme climates.
<b>Flash Injection Technology</b>	Flash injection technology supplies cooler refrigerant to the compressor when the unit is working to provide heating during cold outdoor temperatures. This optimizes compressor performance as it runs at faster speeds, allowing high heating performance at lower temperatures.
<b>Boiler Integration</b>	Boiler Integration enables the system to automatically switch from heat pump to boiler operation for consistent comfort. The system can be set to switch based on optimal energy efficiency or ambient temperature.
<b>Magnetic Filter</b>	The magnetic filter catches large debris, sediment, and iron particles before they can impact the plate heat exchanger, pump, or other piping, supporting system longevity and easier maintenance.
<b>Flow Sensor</b>	The flow sensor maintains water flow by monitoring the flow rate and automatically adjusting the inverter output for maximum efficiency.
<b>Automatic Air Vent</b>	As air builds up in a hydronic system over time, that excess air pressures can be automatically purged to maintain optimal performance.
<b>Dual-zone control</b>	Connecting auxiliary valves and room thermostats to the Hydrobox enables dual-zone control, eliminating the need for additional zone controllers.
<b>Auto Changeover Function</b>	The unit will automatically switch between heating and cooling modes to maintain the set point.
<b>Eco Mode</b>	Eco Mode allows the system to heat the water gradually to reduce power consumption
<b>Energy monitoring</b>	Homeowners can monitor monthly and yearly energy consumption from the Hydrobox controller.
<b>Quiet operation</b>	The outdoor unit features ultra-quiet operation as low as 41 - 45 db(A) due to an anti-vibration design and 6-layer insulation around the compressor. The unit also offers a three-stage low-noise operation modes.
Operation and Efficiency	
<b>Heating Water Flow Temp Range</b>	77°F to 158°F
<b>Cooling Water Flow Temp Range</b>	41°F to 77°F
<b>Operating Range</b>	Heating: -22° F to 75° F, Cooling: 50° F to 144° F
<b>COP at 45°F (Leaving Water Temp 95° F)</b>	Up to 4.74
Capacities	
24k, 36k, and 48k BTU/H	