

Daikin Malaysia Inaugurates JV for AHUs in Taiwan, Targeting Semiconductor Industry

On January 21, 2025, Daikin Malaysia (DAMA) held an opening ceremony to commemorate the launching of operations of Daikin Applied System (Taiwan) in Changhua County, Taiwan, which will manufacture air handling units (AHUs) for the local market.

DAMA is a wholly owned subsidiary of Japan-based Daikin and coordinates the residential and commercial air conditioning business including applied systems in Southeast Asia and Oceania. It established the new company as a joint venture (JV) with Hotai Development, its Taiwanese exclusive distributor, and Leading Electric & Machinery, a Taiwanese industrial air conditioning manufacturer, in August 2024. Of the total capital of ¥800 million (about US\$ 5.2 million), DAMA holds 51%, Hotai Development 34%, and Leading Electric 15%.



Daikin Malaysia holds an opening ceremony for its JV that manufactures AHUs for Taiwan

In cooperation with Hotai Development, Daikin Group has expanded sales in Taiwan of its air conditioners ranging from the residential to the commercial segment including retail stores and office buildings. In 2017, it began fully fledged sales of large-sized commercial air conditioners in Taiwan, accelerating sales expansion in the large-scale commercial segment.

In recent years, as information technology (IT) advances and digitalization progresses, integrating into daily life, demand for semiconductor products that support these technologies has been rapidly increasing. Semiconductors are expected to continue driving market expansion due to the diversification of applications and performance improvements through the adoption of new technologies. In particular, Taiwan is home to manufacturers with a high market share in the global semiconductor foundry sector, and demand for air conditioning systems and services for semiconductor applications is expected to continue to grow.

Leading, a shareholder of the JV, has been developing, manufacturing, and selling chillers and AHUs since its founding in 1981. With an impressive track record for delivering solutions in the semiconductor market, the company is one of Taiwan's top manufacturers. It boasts a highly competitive product lineup, expertise in meeting advanced specifications, expertise for in-house production of component parts, and a solid maintenance service and support system.

The establishment of the JV seeks to leverage the business foundation of Daikin Group in the Taiwanese market together with its core technologies and production knowhow developed globally. It aims to integrate Leading's strengths with the AHU product and support capabilities developed for semiconductor applications, enabling it to manufacture and supply AHUs that meet the demanding needs of the semiconductor market in Taiwan. In this way, the JV will work to provide total solutions that combine Daikin's chillers with highly competitive AHUs.

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In the future, Daikin aims to transfer its acquired knowledge on applications for the semiconductor factory market to other regions and expand business to other applications, such as the data center market which also requires high-level specifications, while addressing such issues as energy savings and decarbonization in a variety of fields.

MARKET NEWS

LG Reveals Latest Dualcool AI Air Conditioner

On January 28, LG Electronics (LG) unveiled its newly upgraded residential air conditioner, the Dualcool AI Air.

Powered by the AI Dual inverter, the system detects the ambient temperature of the space and then intelligently adjusts temperature, airflow direction and speed for consistent comfort. The AI Air mode features a Human Detecting sensor, which precisely tracks the user's location and learns usage patterns through spatial analysis by the ThinQ app to create the most efficient airflow pathway. The function also automatically adjusts settings to create a comfortable indoor environment, delivering direct airflow for fast cooling or heating and transitioning to Soft Air mode with indirect airflow once the room reaches the ideal temperature.

In addition, the new model features Sleep Timer+, which analyzes user preferences and sleep patterns to provide a relaxing sleep environment.

The Dualcool AI Air also employs various energy-saving features, conveniently reducing energy consumption. Its AI kW Manager enables users to control electricity use by setting and monitoring usage limits. The Human Detecting sensor and Window Open detection allows the air conditioner to swiftly sense changes in the room, activating an energy-saving mode when the space is unoccupied or if the temperature suddenly fluctuates.

Moreover, the new Dualcool AI Air simplifies clean air management with its All Cleaning mode, which can be activated with a single tap in the ThinQ app. This mode performs a full maintenance cycle, including condensed water generation and Freeze Cleaning to remove contaminants from the evaporator, as well as Auto Clean+ which automatically dries the interior of the air conditioner.



Dualcool AI Air delivers exceptional comfort, energy efficiency and air care

Epta's XTE Installation Boosts Hypermarket Efficiency in Hungary

Epta, an independent global player and leader specializing in commercial refrigeration, is celebrating the positive results achieved by the Auchan Korzó hypermarket in Maglód, Hungary in the months following the completion of the Extra Transcritical Efficiency (XTE) installation, performed in collaboration with Energy Recovery. This innovative refrigeration system is set to revolutionize the cold chain for the large-scale retail sector.

The store features a customized transcritical CO₂ system that consists of two modular ECO2Large units for large spaces, one of which is integrated with XTE. The system, featuring

enhanced refrigeration capacity, offers a total of 285 kW of cooling.

"The data has been collected and analyzed over a significant range of operating conditions, and accounting for various seasonal outdoor temperatures. It has shown performance beyond expectations, with average measured savings of 15% with the XTE system in operation. The savings have been measured up to ambient temperatures of 42°C," states Stefano Trabucchi, Epta System Engineering Group manager, who continues "This achievement is the result of continuous research and development (R&D) efforts aimed at making this technology increasingly cutting-edge, beginning with the optimization and standardization of the refrigeration circuit."



Epta XTE installation at Auchan Korzó hypermarket in Maglód, Hungary

The Maglód installation represents one of the first applied studies of XTE. It was carried out as part of the European project Enough, of which Epta is one of the supporters participating to demonstrate new technologies. Funded by the European Union's Horizon 2020 program and coordinated by Sintef Ocean in Norway, the plan aims to decarbonize technologies for large-scale distribution and make the cold chain climate-neutral and more efficient.

AUX Expands Global Footprint with Entry into the U.S. Market

On December 2024, AUX announced its entry into the U.S. market with AUX AIR USA — a significant milestone in the company's nearly 40-year journey of delivering cutting-edge technology backed by unmatched service. As a subsidiary of AUX, with a robust presence in Europe and Asia, AUX AIR USA's entry into the U.S. market is a strategic expansion into a market ripe with opportunity.

"This expansion is a natural next step in AUX's strategy to bring advanced heating, ventilation, and air conditioning (HVAC) solutions to markets that demand high performance and quality at a competitive price point," said Matt Lacey, AUX's vice president of U.S. Sales. "Early reception has been positive, indicating a strong need in the United States for the next level of cooling innovation with superior technology and simple installation."

With its U.S. headquarters and corporate team in South Plainfield, New Jersey, AUX plans to continue adding to its headcount throughout 2025 to support growth, with future plans to establish a factory in North America.



AUX broadens its international presence with U.S. market entry