

R744.

CO₂ COOLING MARKETPLACE

Epta's Natural Refrigerant-Based Cabinets See Efficiency Improvements of 25–40%

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Epta's Tango Ultra, GranVista Ultra and GranBering Integral Ultra refrigerated cabinets on display at EuroShop 2023. (Source: Epta)

Italian OEM [Epta](#) has said that its natural refrigerant-based display cabinets set a new efficiency standard in the food retail market. According to the manufacturer, several of its Costan-branded refrigerated cabinets are “best-in-class” and able to achieve energy savings of 25–40% compared to previous models.

To promote sustainability in grocery stores, the entire range of cabinets under Epta's different brands – including Costan – are designed to operate with natural refrigerants. While the manufacturer's standalone plug-in units use propane (R290), remote cabinets use CO₂ (R744).

“Efficiency, consumption reduction and sustainability are top priorities on retailers' agenda aimed at fulfilling economic-environmental challenges and complying with the requirements established by international directives such as Ecodesign and Energy

Labelling,” said William Pagani, Epta’s Chief Marketing Officer. “Retailers appear to be increasingly focused on integrating Retail Energy Management strategies into their business, [and] best practices include adopting the latest technologies and implementing efficiency improvements in lighting, air-conditioning and refrigeration. The latter, in particular, accounts for about 40% of the energy costs in a medium-sized supermarket, and it is therefore essential to opt for high-performance systems capable of ensuring significant savings.”

‘Best-in-class’ cabinets

Epta’s medium-temperature Tango Ultra cabinet is able to achieve a Class A energy efficiency rating with specific configurations, resulting in a 40% energy reduction, the company explained. The refrigerated cabinet also has a 10% increased storage capacity compared to the previous model – Tango Next – due to component reconfiguration.

The GranVista Ultra vertical cabinet for packaged fresh food is 26% more efficient than the GranVista Next model, with new insulation, sealed doors, a “super evaporator” and adjustable fan settings. It has a Class B energy efficiency rating.

For frozen food, Epta’s B-rated GranBering Integral Ultra cabinet offers 35% energy reductions compared to previous models. The R290-based plug-in unit is also available with five doors thanks to the manufacturer’s triple refrigeration circuit, inverter-equipped compressors and a new hybrid defrost system.

Prioritizing ‘sustainable innovation’

In response to the global shift to sustainable technologies, Epta said it positions itself as a “Green Transition Enabler.” One example of the company’s efforts is its development of a complete range of energy-efficient refrigerated cabinets.

With its 10 research and development centers, Epta is committed to identifying new ways to boost the performance of its display cases, including improved air circulation, energy-efficient evaporators, better insulated doors and digital tools – like its LineON platform – for more accurate monitoring.

“For more than fifteen years, Epta has prioritized the performance of its [refrigerated cabinets], positioning itself on the market with a wide range of best-in-class solutions in terms of Energy Labelling,” Pagani said. “A commitment guided by sustainable innovation, which allows us to intercept the most recent market developments and seize new growth opportunities, with constant attention to the wellbeing of people and the environment.”

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Environmentally-friendly production

In addition to helping its customer reduce their carbon footprint through energy efficiency, Epta is also committed to reducing its own greenhouse gas emissions, with a 55% reduction target by 2025 through the use of renewable energy, among other medium- and long-term initiatives.

Epta is also working to improve sustainability throughout the supply chain.

“The goals achieved in terms of energy efficiency are evidence of Epta’s commitment to increasing the performance of its solutions while limiting the environmental impact of the entire supply chain for the stores of the future, in line with European directives,” Pagani explained. “In this sense, in the production plants we aim for an increasingly conscious use of energy sources [and] a reduction of waste, scrap materials and emissions generated by logistics transportation and business travel.”



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