





AT THE HEART OF EVERY FULFILLMENT CENTER: AUTOMATION

For online retailers, fast and reliable order fulfillment is the key component to building consistency and customer loyalty. Quick delivery coupled with broad product availability is exactly how one Rittal customer, a top online retailer, built a global business. With centers ranging in size from 500,000 to 1.5 million square feet, the company's automation systems at the heart of its numerous fulfillment facilities are crucial. These sophisticated, IP-enabled automation systems communicate with routers, sensors, and devices throughout the facility to coordinate all stages of order fulfillment.

THE CHALLENGE: PROTECTING AND EXTENDING THE LIFE OF VALUABLE COMPONENTS

Many large-scale fulfillment centers operate using edge computing, meaning the data is stored and processed as close as possible to where it is needed. To facilitate the movement of data for real-time decision making, this particular Rittal customer needed to house some of its sensitive IT equipment on the warehouse floor. This harsh environment exposes equipment to dust and other contaminants while climate control is a challenge. When cooling units from two different Rittal competitors were not meeting this online retailer's needs, they turned to Rittal. Before long, they standardized a complete Rittal system that combined protection from contaminants with a self-contained cooling system, the Blue e+.



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THE RITTAL SOLUTION

By providing a purpose-built IT infrastructure solution, Rittal ensured lasting efficiency for the global online retailer within the fulfillment center. The security of a strong enclosure platform and remote monitoring with the efficient cooling of the Blue e+ climate control made for a winning solution.

INNOVATIVE HYBRID COOLING TECHNOLOGY WITH THE RITTAL BLUE E+

The Rittal Blue e+ cooling units provide cooling output that is always exactly the amount needed at the time. Not only is energy consumption far less than with conventional technology, but the improved cooling leads to longer service life of the components inside the enclosure and the cooling unit itself. The Blue e+ achieves this by using an innovative hybrid process that relies on parallel cooling circuits working together based on temperature difference, while an integral heat pipe dissipates heat from the enclosure as soon as the ambient temperature falls below the set point for passive climatization. Active climatization is achieved via the compressor's cooling circuit with speed-controlled components for demand-based cooling.



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"The system is streamlined and efficient for them. They wanted a solution that is well built, well designed, robust, and reliable. They've been our customer for a decade. During that time, they have tested other systems, but they stick with Rittal because of the efficiency and reliability that we deliver."

- GEORGE CORREIRA, IT KEY ACCOUNT MANAGER AT RITTAL

A PURPOSE-BUILT COMPLETE SYSTEM

To meet the needs of this global company, Rittal created a purpose-built system, including dedicated part numbers, that allows them to order new installations from designated global ordering points to be installed at their fulfillment centers around the world. Rittal's standardized approach, which ships fully integrated, allows the customer to get up and running quickly in any country.

SUPERIOR ENERGY EFFICIENCY

Like most large companies today, this customer has aggressive sustainability goals, which Rittal's climate control products help them meet. Rittal's Blue e+ units deliver superior energy savings, and when managing large fulfillment centers with complex infrastructures, the energy efficiency delivered by the units contributes significantly to the bottom line.

In addition, this online retailer has installed redundant systems within each facility, greatly reducing the risk of downtime. Each fulfillment center has two complete and identical Rittal solutions installed to ensure that the center can continue managing orders 24/7.

"Blue e+ has been show to provide up to 75% energy savings. And they've reported back to us that the performance and reliability of the system are in line with what was predicted."





"With the service program, we ensure our equipment operates efficiently and effectively. They have less to worry about and they save money."

- GEORGE CORREIRA, IT KEY ACCOUNT MANAGER AT RITTAL

IOT FEATURES ENABLE REMOTE MONITORING

By offering the IoT module to the customer's Blue e+ units, Rittal helps the customer centralize monitoring and control. Although the IoT modules are not performing mission-critical functions at the control level, the retailer is able to use the data they provide for predictive insight into system performance and future requirements. In addition, the customer has partnered with Rittal for maintenance of these systems. Rittal's service programs offer tailored solutions to support its customers' businesses. Rittal Service guarantees regional proximity of service technicians and fast response times to meet immediate needs and minimize expensive downtime.

THE RESULTS

The implementation of Rittal's edge solutions has optimized the online retailer's fulfillment operations. The purpose-built IT infrastructure, featuring the innovative Blue e+ cooling units, has significantly reduced energy consumption, extended component life, and streamlined the deployment of new installations globally while redundant systems and superior energy efficiency minimized downtime risk and aligned with the customer's sustainability goals.



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CONTACT RITTAL TO OPTIMIZE YOUR BUSINESS' **WAREHOUSE OPERATIONS:**

Contact Rittal today for more information on how Rittal's superior edge solutions can transform your warehouse operations, streamline IT infrastructure, and enhance energy efficiency. Our dedicated team will listen to your unique requirements to deliver solutions that maximize both efficiency and reliability while creating a system that bolsters your sustainability efforts.

ABOUT RITTAL LLC

Rittal LLC is a global manufacturer of industrial and IT enclosures, racks, and accessories, including cooling solutions and power management systems for industrial, data center, outdoor, and hybrid applications. As the largest manufacturer of enclosures in the world, Rittal provides innovative, high-quality solutions for practically any industrial or IT infrastructure application, from single enclosures to comprehensive, mission critical systems. Products are tested and certified to the appropriate standards that apply, including UL, CSA, ATEX, NEMA, and more. Learn more at rittal.us.



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