



W.R. CONTROLS
A Division of WESCO Distribution, Inc.

Case Study: In-line Retailer

A national specialty chain building 20-30 locations per year. The store is usually located in a prominent area of a lifestyle center or strip mall. The store is typically provided with 480Y/277V AC service.

Application

The store requires an incoming 480V service, typically sized for 6000A. Lighting, and HVAC loads are fed from the electrical equipment. Lighting is controlled in separate zones via individual time clocks. Checkout, network, and other critical receptacles are required to have clean power, as well as a reliable backup source of power (UPS).

The stores previously used loose panelboards in a main electrical room, and an individually mounted time clock to control lighting contactors. Further, floor-mounted UPS systems were used and set in place. Finally, HVAC controls were mounted on a separate board along with contactors to complete the system.

Solution

The solution provided by W.R. Controls and Eaton was a result of working with the retail client and their prime design engineer. An Eaton Integrated Facility System (IFS) assembly along with solenoid-operated smart breakers was used as a basic building block.

One requirement was to reduce the size of the room, while maintaining system integrity. Integration of the HVAC controllers and UPS system were to be included. This eliminated the need for contactors and interposing relays for the lighting control scheme, and dramatically reduced the labor for installation because everything arrived pre-wired and tested at the site.

The HVAC controls are mounted in the assembly itself, and the time clock function is derived from the system controller, saving valuable wall space. The feeder panelboards are also integrated into the assembly. The MDP feeder breakers are factory wired

from the breaker load side terminals to the panel main lugs and transformer lugs prior to shipment, further reducing the time and material required onsite for installation. The transformer is integrated into the unit as well as the UPS (providing clean power as well as system protection), further reducing the footprint.

Benefits

The IFS solution reduced the overall backroom footprint for the restaurant by more than 40%, reduced the overall installation time by 30%, and shortened the store construction schedule by almost a full week. The smart breaker/time clock combination has allowed for smooth, energy efficient management of the lighting loads for the store, and pre-wiring of critical components (i.e., UPS) assuring a smooth startup.



For more information on W.R. Controls/Eaton Integrated Facility System (IFS) solutions for Retail, email us at hseidell@wrcontrols.com or call 1-800-417-7543