



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

Case Study: Family Dining Restaurant

A national restaurant chain building 20-30 restaurants per year. Seating capacities range from 250-280 people in 7,000-7,800 sq ft. The store is typically provided with 208Y/120V AC service.

Application

The store requires an incoming 208V service, typically sized for 1000A. Cooking, lighting, and HVAC loads are fed from the electrical equipment. Lighting in three separate zones (exterior signage, parking lot pole lights, and interior building lights) is controlled via individual time clocks. The electronic loads (checkout registers, etc.) are fed from an Isolated Ground panelboard that requires its own Transient Voltage Surge Protection (TVSS).

Previously, the restaurant used loose panelboards scattered throughout the store, and individually mounted time clocks to control lighting contactors. They felt this put the protective devices closer to the loads and shortened cable runs (saving installation cost).

Solution

W.R. Controls worked with the retail client and their prime design engineer. The solution incorporated the time clocks into an Eaton Integrated Facility System (IFS) assembly along with solenoid-operated smart breakers. This eliminated the need for contactors and interposing relays for the lighting control scheme, and reduced the labor for installation dramatically because everything arrived pre-wired and tested at the site.

The time clocks are mounted in the upper section of the Main Distribution Panel (MDP), 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 prior to shipment, further reducing the time and material required on site for installation. Finally, the

TVSS unit is mounted on the front door of the Isolated Ground (IG) panel, assuring that this unit is as close to the main bus as possible (increasing the level of surge protection) yet still conserving backroom space.

Benefits

The IFS solution reduced the overall backroom footprint for the restaurant by more than 60%, reduced the overall installation time by 30%, and shortened the store construction schedule by almost a full week. Having the TVSS mounted directly on the IG panel assured the highest level of surge protection available by reducing the distance from the surge device to protected service to an absolute minimum.

The smart breaker/time clock combination has allowed for smooth, energy efficient management of the lighting loads for the restaurant.



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