

Industrial Control Panels

Assembly and Testing

Custom Panel Shop Solutions more than a panel

Turnkey custom solutions for electrical distribution and control systems

Today's aging electrical distribution and control systems face a range of significant challenges that can dramatically compromise ongoing safety and uptime, from reduced reliability to increased maintenance requirements to a lack of available spare parts. Our custom panel shop solutions cost-effectively extend the useful life of aging electrical power systems with equipment upgrades and modernization that helps ensure that your equipment and personnel always remain protected.

Eaton's industry leading solutions combine the latest technology, with world class field service support, project management, electrical system engineering, power system analysis, power quality improvements, equipment life extension and operational excellence programs.

UL 508A certified

As a UL 508A certified shop, we provide UL-marked custom built control panels — certifying proper component usage, enclosure environmental ratings, wiring and motor protection, safety markings, and assembly conformance to the National Electrical Code (NEC) and Canadian Electrical Code (CEC). Even more, our turnkey solutions are backed by a comprehensive 1-year warranty — or a 2-year warranty if Eaton completes the installation.

Renovate existing equipment with minimal power interruptions and without total replacement by applying new or redesigned panels to enhance other life extension projects. We can also customize products to match your specifications.

- Protective relaying/switchgear door upgrades
- Power Xpert® meter panels, portable or enclosed units
- PLC control panels
- Remote breaker control panels
- Switchboard controls and retrofill
- Generator and transfer switch controls
- Motor control panels with 3-phase disconnect
- Arc Flash Limiter solutions (AFL)
- High resistance grounding units (HRGU)
- Voltage transient suppression devices (Snubbers)
- Harmonic filters
- Wire harnesses

Customer solutions offer:

Made to specs for your needs	Safe operations and maintenance	Instant information (voltage, current, frequency, etc.)	Ease of use and reliability

EATON

Powering Business Worldwide

Engineered Solutions Standard Specifications

New or redesigned panels can be applied to fully realize capabilities of other modernization/life extension projects, including new front doors, relays and controls associated with circuit breaker replacements, as well as stand-alone modernization of protective relays and controllers. We can also customize and build snubbers to meet your specific requirements and physical space restrictions — including enhancing basic snubber components with protective features such as voltage indication, continuity verification and blown fuse indicators.

Drawings

In the absence of customer-supplied drawings, enclosure layout drawing(s), including device layout and bill of material, as well as a wiring diagram and schematics are supplied.

Devices

Devices are custom fit to the enclosure and secured with front accessible hardware into the back panel.

Wire Type

SIS switchboard wire, XLPE, 90°C, 600 V

Wire Color

Standard wire color is grey. Red is available upon request.

Shielded Cable

300 V, 14 AWG twisted pair is typically used for analog signals. Shields are grounded at the source of power. The cable is finished with heat shrink on either end of the cable.

Wire Routing

Wiring is continuous without splices. Wires are run in gray wireway. AC and DC signal wiring are segregated to avoid parallel runs as much as practically possible. Wires are run in a “drip-loop” across a panel hinge and protected with plastic spiral wrap.

Wire Labels

Computer generated heat-shrink style wire labels are installed at both ends of each wire. The Standard “FROM” Format is utilized.

Termination Blocks

Eaton’s IEC-style din-rail terminal blocks are used. Terminal blocks for control wire are rated at 600 V, 30 A. Blocks for power are rated at 600 V, 50 A. Blocks are marked with sequential numbers. A maximum of two terminations per block opening is permitted.

Legends

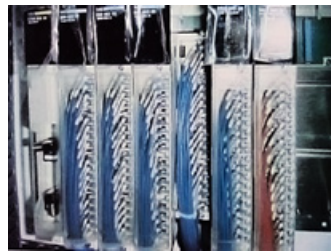
Internal relays, starters, and terminal strips are labeled with white text on black background.

Testing

Each panel is point-to-point tested per the drawing.

Options

- Drawings: network architecture, connection diagrams, single-line, 3-line, etc.
- Custom wire colors are available to meet customer requirements.
- Smart wire
- NEMA-style terminations
- Custom wire labels
- Engraved lamicord legends
- Testing: full functional testing, power up of all devices.



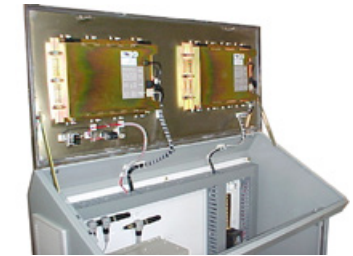
PLC and motor control panels



Transfer scheme upgrades



Motor control panels with 3-phase disconnect



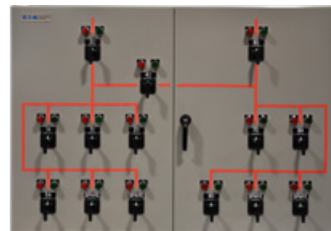
Operator consoles



High resistance grounding units



Protective relaying / switchgear door upgrades



Remote breaker control panel



Remote breaker control panel



Protective relaying / switchgear door upgrades

Eaton
1000 Eaton Boulevard
Cleveland, OH 44122
United States
Eaton.com

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