

The Eaton logo, consisting of the word "EATON" in a bold, blue, sans-serif font. The letter "A" is stylized with a white dot in the center.The Cutler-Hammer logo, consisting of the words "Cutler-Hammer" in a bold, black, sans-serif font.

Transfer Switch Equipment

Product Focus

Standby Power
Peak Shaving
Distributed Generation



Reassurance

What's Reassurance?

Reassurance is knowing that everything is going to be okay; that you have standby resources in case of an emergency. In this day and age, when electrical power is critical, wouldn't you like to know the feeling of reassurance?

Eaton Corporation provides high quality, versatile and flexible Cutler-Hammer Transfer Switches and Peak Shaving equipment that will give you the reassurance to know your facility is protected with standby power for critical applications and the capability to reduce peak energy costs by limiting peak demand.

Applicable Codes and Standards

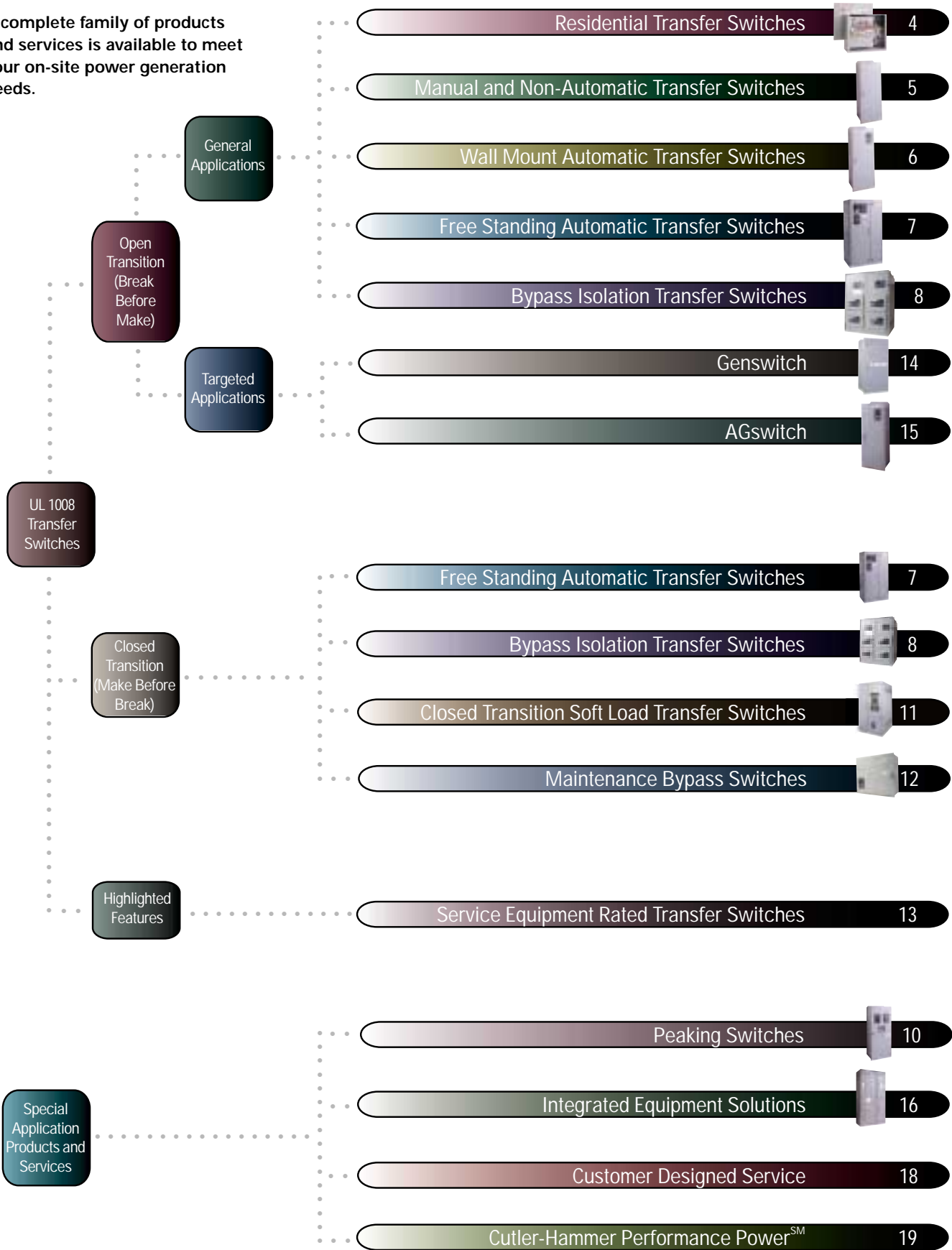
- UL 1008 ----- Standard for Safety for Automatic Transfer Switches
- UL 891 ----- Standard for Safety for Dead Front Switchboards
- UL 489 ----- Standard for Circuit Breakers and Molded Case Switches
- NEC Articles ----- Code Sections Applicable to Transfer Switch Equipment
517, 700, 701, 702
- NFPA 110 ----- Emergency and Standby Power Systems
- NFPA 99 ----- Health Care Facilities
- EGSA 100S ----- Standard for Transfer Switches
- NEMA ICS10 ----- Standard for Transfer Switch Equipment
- UBC ----- Uniform Building Code for Seismic Zone 4
- ISO 9000 ----- International Organization for Standardization

Innovative design differentiates Eaton from other manufacturers.

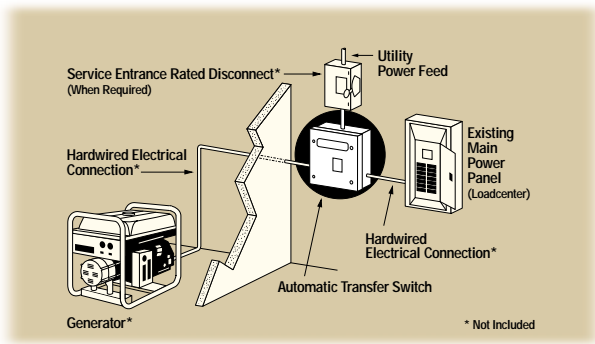
- **Suitable for Service Equipment**
Integral overcurrent protection allows Cutler-Hammer Transfer Switches to be rated as suitable for service equipment.
- **Safe Manual Operation Under Full Load**
Cutler-Hammer Transfer Switches are designed for safe manual transfer operation under full load.
- **Superior Withstand, Interrupting and Closing Ratings**
Cutler-Hammer Transfer Switches are manufactured with total system coordination in mind.
- **Product Integration Solutions**
Cutler-Hammer Transfer Switches can be integrated into other electrical distribution assemblies saving valuable floor space and installation time.

Product Index

A complete family of products and services is available to meet your on-site power generation needs.



Residential Transfer Switches



Residential power interruptions have grown increasingly costly and more damaging as more people work, entertain, and receive health care at home. Additionally, homeowners are less willing to endure the inconvenience or expense of an outage – one that can be easily avoided at a reasonable cost.

When your normal power source has been interrupted, a highly reliable automatic transfer switch will start your emergency generator and connect the standby power to circuits in your home. When normal power is restored, the process is reversed - automatically.



The Cutler-Hammer Automatic Transfer Switch will help you:

- Prevent personal injury and generator damage
- Prevent accidental connection of the generator to the utility
- Prevent the loss of computer data from extended outages
- Prevent property loss due to freezing or loss of refrigeration

Highlights

- Delivered from the factory completely assembled, pre-wired and tested
- Teardrop keyhole design that makes level installation easy
- Only four connections needed: incoming power line, emergency line from the generator, customer load circuit, and engine start
- Compact size allows for single-person installation

Equipment Ratings

- Ratings from 30-200 amps
- For 240V AC and 208V AC single-phase systems
- 2-pole
- Enclosures – NEMA 1 and 3R

Manual and Non-Automatic Transfer Switches

Manual and Non-Automatic transfer switches are ideal for use in applications where an automatic load transfer is not required.



Highlights

- Insulated or molded case switching devices designed specifically for UL 1008
- Pushbutton operation to initiate transfer (Non-Automatic)
- Safe manual operation under full load
- Optionally rated as suitable for service equipment – no additional disconnect required (Non-Automatic)
- Permanently affixed operating handle (Manual)

Equipment Rating

- Ratings available from 30-1000 amps (Manual)
- Ratings available from 30-4000 amps (Non-Automatic)
- Available up to 600V AC
- 2-, 3-, or 4-pole
- Enclosures – Open, NEMA 1, 3R, 4, 4X and 12

Wall Mount Automatic Transfer Switches



In the mid-90's North American facilities experienced a rise in power outages when utilities were deregulated and the need to be more competitive forced providers to "push" their limits of capacity and endurance. In today's market, to be productive and meet demand, your facility needs to have reliable standby power.



Highlights

- Molded case switches designed specifically for UL 1008
- Field selectable transformer panel permits operation on a wide range of system voltages
- Safe manual operation under full load
- 3-phase close differential undervoltage sensing of normal source
- Three levels of interlocking: two mechanical and one electrical
- Optionally rated as suitable for service equipment – no additional disconnect required

Available Logic Controllers



- ATC-200 - Provides a basic package of standard features for systems up to 240V AC
- ATC-400 – Provides a wide range of standard and optional features for systems up to 600V AC
- ATC-600 IQTransfer – Combines a full range of standard and optional features including sub-network capabilities for advanced control of systems up to 600V AC

Equipment Ratings

- Ratings available from 30–1000 amps
- Up to 600V AC
- 2-, 3-, or 4-pole
- Enclosures – NEMA 1, 3R, 4, 4X, 12 or Open

Free Standing Automatic Transfer Switches



Highlights

- Available in open and closed transition (<100ms) designs
- Drawout or fixed mount SPB insulated case switching devices designed specifically for UL 1008
- High withstand, interrupting and closing ratings
- Fastest switching time available (< 5 cycles)
- Optionally rated as suitable for service equipment – no additional disconnect required

Equipment Ratings

- Ratings available from 600-4000 amps
- Available up to 600V AC
- 2-, 3-, or 4-pole
- Enclosures – NEMA 1, 3R or open

Also Available

Mini SPB

- Available 600-1200 amps
- Dramatically reduced height and depth
- Front accessible terminations - rear access is not required
- Enclosures – NEMA 1, 3R, 4, 4X, 12 or open
- Fixed mounted devices

Available Logic Controllers



- **ATC-600 IQ Transfer** – Combines a full range of standard and optional features including sub-network capabilities for advanced control of systems up to 600V AC
- **ATC-800 Closed Transition IQ Transfer** – Combines a full range of standard and optional features including sub-network capabilities for advanced control of passive closed transition (<100ms) systems up to 600V AC

Bypass Isolation Transfer Switches



Bypass isolation transfer switches are designed to excel in applications where service, inspection, and testing of the transfer switch must be accomplished while maintaining constant power to critical loads. Available with insulated case or molded case switching devices to meet a broad range of applications.



Highlights

- Molded case switching devices designed specifically for UL 1008
- Safe manual operation under full load
- 3-phase close differential undervoltage sensing of normal source
- Optionally rated as suitable for service equipment – no additional disconnect required

Equipment Rating

- Ratings available from 100-1000 amps
- Available up to 600V AC
- 2-, 3-, or 4-pole
- Enclosures – NEMA 1

Available Logic Controllers



- ATC-600 IQTransfer – Combines a full range of standard and optional features including sub-network capabilities for advanced control of systems up to 600V AC

Bypass Isolation Transfer Switches



Highlights

- Drawout SPB insulated case switching devices designed specifically for UL 1008
- Available in open and closed transition (<100ms) designs
- Four switching device design
- High withstand, interrupting and closing ratings
- Fastest switching time available (<5 cycles)
- Optionally rated as suitable for service entrance equipment – no additional disconnect required
- No power outage during bypass generation

Equipment Rating

- Ratings available from 800-4000 amps
- Available up to 600V AC
- 2-, 3-, or 4-pole
- Enclosures – NEMA 1

Available Logic Controllers



- **ATC-600 IQTransfer** – Combines a full range of standard and optional features including sub-network capabilities for advanced control of systems up to 600V AC
- **ATC-800 Closed Transition IQTransfer** – Combines a full range of standard and optional features including sub-network capabilities for advanced control of passive closed transition (<100ms) systems up to 600V AC

Peaking Switches



With our peaking switches, facility managers can avoid potential demand rate surcharges during peak power usage. They can also take advantage of utility sponsored curtailment programs by paralleling with the utility source and “peak shaving” to allow the generator set to handle all, or a portion, of the facility’s load.

Peaking switches are designed as a retrofit solution to work in tandem with existing transfer switch installations to provide full time capable load sharing systems.

Highlights

- Integral Generator Protective Relay Functions
- Modbus and Lonworks communications included as standard
- Password protected local HMI for monitoring and set point access
- Minimal external customer connections

Equipment Ratings

- Ratings available from 400-4000 amps
- Available up to 600V AC
- Enclosures – NEMA 1 and 3R

Whether you are a facility looking to reduce the demand portion of your energy bill, a utility trying to integrate additional distributed generation, or an owner looking for a more productive way to apply on-site generation – we have engineered the unique product solution.

Closed Transition "Soft Load" Transfer Switches

Closed transition soft load transfer switches with active generator control allow the load to be gradually and seamlessly transferred from one source to the other. Closed transition soft load transfer switches are an ideal solution for power availability, energy management and generator set exercising applications.



Highlights

- Active generator control for the fastest and most reliable method of power source synchronization
- HMI for ease of programming with display of metered parameters
- Optional Transient Voltage Surge Suppression (TVSS)
- Optionally rated as suitable for service equipment – no additional disconnect required

Equipment Ratings

- Ratings available from 600-4000 amps
- Available up to 600V AC
- 2-, 3-, or 4-pole
- Enclosures – NEMA 1 and 3R

Also Available

Mini Closed Transition "Soft Load" Free Standing Switches

- Available 600–1200 amps
- Dramatically reduced height and depth
- Front accessible terminations – rear access is not required
- Fixed mounted devices



Maintenance Bypass Switches

Maintenance bypass switches provide a simple and effective means for bypassing uninterruptible power supplies (UPS) allowing service of the UPS while maintaining continuity of power to the critical computer loads.



Highlights

- Interlocks to UPS "bypass authorized" signal
- Make before break electrical operation
- Pilot devices to show UPS position
- Reliable manually initiated electrical operation

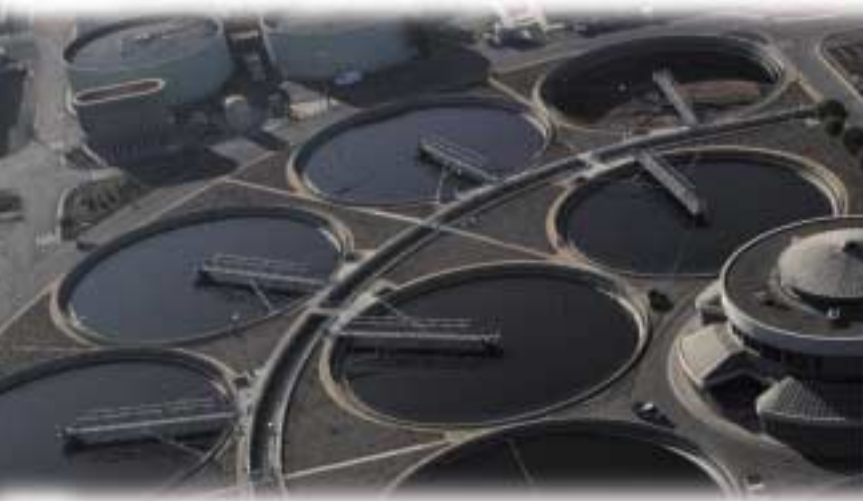
Equipment Rating

- Ratings available from 100-1000 amps
- Available up to 600V AC
- 2-, 3-, or 4-pole
- Enclosures – Open, NEMA 1, 3R, 4, 4X and 12

Service Equipment Rated Transfer Switches

When the entire load of an installation requires standby emergency power for complete protection against commercial power interruption, it becomes necessary to have the ATS as close to the point of service entrance as possible.

With our Service Equipment Rated Transfer Switches, installation can be made directly at the point of service entrance—while simultaneously eliminating the need for separate upstream disconnect devices and their respective power interconnections.



Installation Comparison— The Cutler-Hammer Advantage

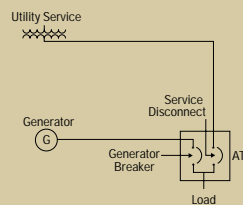
Cutler-Hammer Method

- UL 1008 listed for service equipment
- Integral overcurrent protection
- Service disconnect “both-off” capability
- Lockout (when in disconnect position only)
- Indication of service disconnect

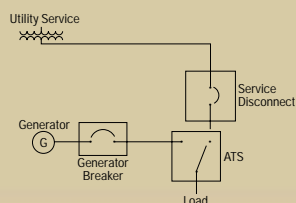
Conventional Method

- ATS
- Separate generator breaker
- Separate generator breaker enclosure
- Separate service disconnect
- Separate service disconnect enclosure
- Power cable/bus interconnections
- Installation of the separate components
- Extra space requirement
- Added maintenance requirement

Cutler-Hammer Method



Conventional Method



Genswitch

(Available only through authorized dealers)



The Cutler-Hammer Genswitch is designed with a standard feature package for basic standby power applications and is ideally suited for rental genset applications.



Highlights

- Field selectable transformer panel permits operation on a wide range of system voltages.
- Programmable plant exerciser with failsafe
- UL 1008 Listed
- Safe manual operation under full load

Equipment Rating

- Ratings available from 30-1000 amps
- Consult factory for ratings above 1000 amps
- Available up to 600V AC
- 2-, 3-, or 4-pole
- Enclosures: NEMA 1, 3R and 12

AGswitch

(Available only through authorized dealers)

The Cutler-Hammer AGswitch is designed with a standard feature package specifically for agricultural standby applications.



Highlights

- Stylized for simplified ordering
- UL 1008 Listed
- Easy to use field programmable controller
- Safe manual operation under full load

Equipment Rating

- Ratings available from 30-800 amps
- Available up to 240V AC
- 2-, 3-, or 4-pole
- NEMA 3R gasketed enclosure
- Optionally rated as suitable for service equipment
no additional disconnect required

Integrated Equipment Solutions

Integrated Equipment Solutions

Eaton is the leader in engineering integrated custom equipment solutions. Transfer switches can be integrated into distribution assemblies including panelboards, switchboards, motor control centers and switchgear. Transfer switches can also be combined with other equipment such as distribution transformers and



surge suppression devices into a Cutler-Hammer Integrated Facility System (IFS™) - a factory pre-wired system that reduces installation space, equipment handling logistics, installation time and overall installed costs. This is our specialty and we can design custom solutions for your application.



Engineering Services & Systems

Customer Designed Service

Installation, maintenance, on-site training...our engineering services group can satisfy your distributed generation needs. Superior hardware is only part of the answer - effective power strategies require intelligent system design, integration, coordination and control. That means working with a dedicated service partner who understands on-site and remote access diagnostics, modernization and preventive maintenance.

- **Power Systems Engineering** provides analytical services through system studies and on-site investigations.



- Through **Predictive Diagnostics**, the latest technologies are applied to support on-line condition assessment, as well as ongoing monitoring, of critical electrical distribution equipment.
- **Power Systems Automation** will take full responsibility for system design, programming, panel building, installation and documentation.
- With **Turnkey Project Management** we'll handle the technical and commercial risk inherent in meeting project objectives.
- We offer manufacturing expertise to assist in the field installation of any Cutler-Hammer, or other manufacturer's brand product, including all of our generation systems products.

Cutler-Hammer Performance PowerSM

Nobody delivers Power Quality (PQ), Reliability and Energy Management services and solutions like Cutler-Hammer Performance Power. Power related problems undermine competitiveness and result in business interruption and equipment damage. Every year, power reliability problems cost businesses in the United States billions of dollars in lost data, material and productivity. As a trusted advisor for many of the nation's leading companies, our Performance Power team has experience solving the most complex power problems in all industries – from retail facilities to mission critical telecommunication facilities. With our methodology and product application experience, you can be assured that your facility will stay up and running and that you always stay one step ahead of your competition.



Performance Power Hotline: 1-800-809-2772
Menu (Option 1, Suboption 2)

Having trouble understanding a problem related to Power Quality, Reliability or Energy Management? Confused about what technology to apply to improve facility uptime, or cut energy costs? Call our Hotline to talk to our Performance Power Experts, or e-mail us at PQHotline@eaton.com.

Company Information

Eaton's Cutler-Hammer business is a worldwide leader providing customer-driven solutions. From power distribution and electrical control products to industrial automation, the Cutler-Hammer business utilizes advanced product development, world-class manufacturing, and offers global engineering services and support. To learn more about Eaton's innovative Cutler-Hammer products and solutions call 1-800-525-2000, for engineering services call 1-800-498-2678, or visit www.cutler-hammer.com.

Eaton Corporation is a global \$8 billion diversified industrial manufacturer that is a leader in fluid power systems; electrical power quality, distribution and control; automotive engine air management and fuel economy; and intelligent truck systems for fuel economy and safety. Eaton has 49,000 employees and sells products in more than 50 countries. For more information, visit www.eaton.com.

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