Eaton automatic transfer switch

The switch to Eaton should be **automatic**

Powering Business Worldwide

Built with experience

In critical power applications, there is no room for error. You need a transfer switch that is built to last. With more than 100 years of experience, Eaton can engineer reliable solutions to meet the specific demands of your application—completely designed and customized to your needs.

Around-the-clock reliable power

In today's business critical environment, customers are driving our transformation from a leading global electrical assemblies provider into a customer-centric solutions partner who understands your business. We do this through in-depth collaboration with customers combined with subject-matter experts who study the issues inherent in electrical power distribution and control systems.

Eaton offers the broadest selection of UL® 1008 Listed automatic transfer switches in the market, which deliver a host of features and benefits to meet your application needs, including:

- Contactor and circuit breaker construction
- Open-delayed, open-in-phase and closed transition switching
- Bypass isolation type
- Three tiers of automatic transfer switch controllers
- Integrated service entrance option
- Field adaptable design
- Industry-leading UL 1008 Listed withstand close-on ratings
- Easy integration into switchboards and motor control centers
- Three-source switching solutions

Specifically engineered to meet electrical reliability requirements

CONTACTOR

Contactor transfer switches

- Compact design and user-friendly front access interface simplifies routine operation, testing, maintenance and user programming
- Rated for 40–1600 A up to 480 V and 40–1200 A up to 600 V in two-, three- or four-pole configurations
- Available in open-delayed, open-in-phase and closed transition
- Automatic and non-automatic styles
- Bypass isolation option provides industry-leading Dual ATS technology that allows for automatic operation in both the ATS and Bypass modes
- Field-selectable multi-tap transformer panel permits operation on a wide range of system voltages

CIRCUIT BREAKER

Molded-case circuit breaker transfer switches

- High withstand close-on ratings on low amperage transfer switches without frame derating.
- 100% rated for 30–1000 A up to 600 V in two-, three- or four-pole configurations
- Available in open-delayed transition
- Automatic, non-automatic and manual styles
- Integral service entrance rated option
- Permanently affixed operating handle allows for safe manual operation under full load
- Field-selectable multi-tap transformer panel permits operation on a wide range of system voltages
- Self-protecting switching contacts

MAGNUM

Magnum® breaker transfer switches

- UL 1008 Listed with a 30-cycle short-time rating. The use of optional electronic trip units allows performance curve shaping to facilitate proper system coordination and application
- Rated for 200–5000 A up to 600 V in two-, three- or four-pole configurations, and available in open-delayed, open-in-phase and closed transition
- Automatic and non-automatic styles
- Drawout construction is available for applications such as critical life support systems where preventive maintenance, inspection and testing must be accomplished while maintaining continuous power to the load
- Available with Eaton's Arcflash Reduction Maintenance System™ to reduce the incident energy levels for downstream equipment during periods of maintenance
- Optional bus flange connections
- Open frame design for integration into new or existing distribution lineup
- Integral service entrance rated option
- Bypass isolation option

Bypass isolation transfer switches

The bypass isolation switch is designed for applications where maintenance, inspection and testing must be performed while maintaining continuous power to the load. This is typically required in critical life support systems and standby power situations calling for safe system maintenance with no power disruptions. Eaton offers bypass options in both Contactor and Magnum breaker switches.

CONTACTOR

Contactor bypass isolation transfer switches

- Rated for 100–1600 A up to 480 V and up to 1200 A at 600 V
- Available in open-in-phase, open-delayed or closed transition
- Front accessible with top and/or bottom entry available
- Dual ATS technology allows both the ATS and the bypass switch to operate as automatic transfer switches
- Drawout capabilities on both ATS and bypass compartments allow preventive maintenance, inspection and testing to be accomplished while maintaining continuous power to the load
- Safety interlock system
- Field-selectable multi-tap transformer panel permits operation on a wide range of system voltages

MAGNUM

Magnum breaker-bypass isolation transfer switches

- Rated for 200–5000 A in open-delayed, open-in-phase and closed transition configurations
- UL 1008 Listed with a 30-cycle short-time rating. The use of optional electronic trips allows performance curve shaping to facilitate proper system coordination and application
- Rear/side/top or bottom entry cable access with an optional front access cubicle
- Reliable microprocessor logic
- No service interruption when transferring to bypass
- Drawout capabilities on both ATS and bypass compartments allow preventive maintenance, inspection and testing to be accomplished while maintaining continuous power to the load

ATS withstand and close-on ratings

UL 1008 listed withstand and close-on rating (kA), 480 V

		Short-circuit (3-cycle)				Short-circuit with specific upstream breaker			
Ampere rating	Number of poles	Contactor	MCCB	Contactor bypass	Magnum	Contactor	MCCB	Contactor bypass	Magnum
30	2, 3, 4	NA	65	NA	NA	NA	65	NA	NA
40	2, 3, 4	10	NA	NA	NA	22	NA	NA	NA
70	2, 3, 4	10	65	NA	NA	22	65	NA	NA
100	2, 3, 4	10	65	30	NA	22	65	30	NA
200	2, 3, 4	10	65	30	100	22	65	30	100
225	2, 3, 4	30	65	30	100	50	65	30	NA
260	2, 3, 4	30	NA	30	100	50	NA	30	NA
300	2, 3, 4	NA	65	30	100	NA	65	30	100
400	2, 3, 4	30	65	30	100	50	65	30	100
600	2, 3	50	65	50	100	65	65	50	100
600	4	50	35	50	100	65	35	50	100
800–1200 ❶	2, 3	50	50	50	100	65	50	50	100
800–1200 ❶	4	50	35	50	100	65	35	50	100
1600	2, 3, 4	50	NA	50	100	65	NA	65	100
2000	2, 3, 4	NA	NA	NA	100	NA	NA	NA	100
2600	2, 3, 4	NA	NA	NA	100	NA	NA	NA	100
3000	2, 3, 4	NA	NA	NA	100	NA	NA	NA	100
3200	2, 3, 4	NA	NA	NA	100	NA	NA	NA	100
4000	2, 3, 4	NA	NA	NA	100	NA	NA	NA	NA

❶ MCCB 800–1000 A only.

UL 1008 listed withstand and close-on rating (kA), 600 V

		Specific upstream fuse				Short-time (30-cycle)
Ampere rating	Number of poles	Contactor	MCCB	Contactor bypass	Magnum	Magnum
30	2, 3, 4	100	200	NA	NA	NA
40	2, 3, 4	100	200	NA	NA	NA
70	2, 3, 4	100	200	200	NA	NA
100	2, 3, 4	100	200	200	NA	85
200	2, 3, 4	100	200	200	NA	85
225	2, 3, 4	200	200	200	NA	NA
260	2, 3, 4	200	200	200	NA	NA
300	2, 3, 4	200	200	200	NA	85
400	2, 3, 4	200	200	200	NA	85
600	2, 3	200	200	200	NA	85
600	4	200	200	200	NA	85
800–1200	2, 3	200	200	200	NA	85
800–1200	4	200	200	200	NA	85
1600	2, 3, 4	200	NA	200	NA	85
2000	2, 3, 4	NA	NA	NA	NA	85
2600	2, 3, 4	NA	NA	NA	NA	85
3000	2, 3, 4	NA	NA	NA	NA	85
3200	2, 3, 4	NA	NA	NA	NA	85
4000	2, 3, 4	NA	NA	NA	NA	85 ❶
5000	2, 3, 4	NA	NA	NA	NA	85 ❶

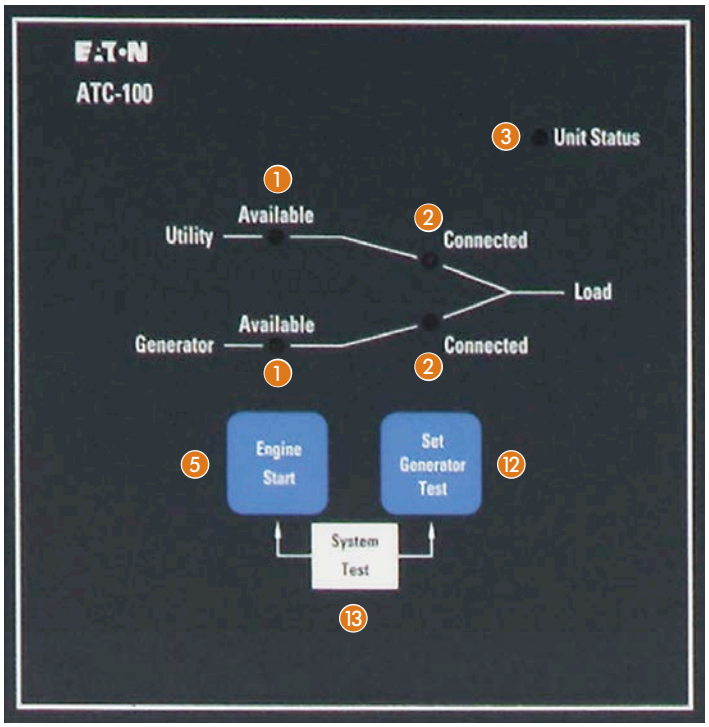
❶ UL 1066 short-time withstand rating.

Automatic transfer switch controllers

An automatic transfer switch controller is the key component that provides the intelligence to sense the proper conditions to initiate a transfer and retransfer of the switch. Eaton's transfer switches come with the design flexibility of being applied with a variety of controllers.

ATS CONTROLLER FEATURES

1. Source availability indication
2. Source position indication
3. Diagnostic status indication
4. Liquid crystal display (LCD)
5. Engine start pushbutton
6. Help/lamp test pushbutton
7. Step/enter pushbutton
8. Navigation pushbuttons
9. Bypass timer pushbuttons
10. Increase/decrease pushbuttons
11. Alarm reset pushbuttons
12. Set generator test pushbutton
13. System test pushbutton



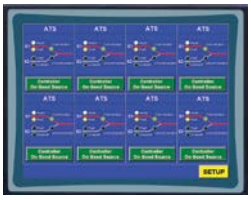
ATS controllers

Standard and optional controller features

	Automatic controller		
Description	**ATC-100**	**ATC-300+**	**ATC-900**
Basic transfer control plant exerciser time delays self diagnostics and system settings	Standard	Standard	Standard
Source mimic diagram with LED indication	Standard	Standard	Standard
Engine test and start contact	Standard	Standard	Standard
Dual source control power input	Standard	Standard	Standard
Liquid crystal display (LCD)		Standard	Standard
Programmable set points and plant exerciser		Standard	Standard
Password protection		Standard	Standard
Time-stamped history and event log		Standard	Standard
Time delay bypass		Standard	Standard
Go to source 2 control input		Standard	Standard
Pre-transfer and general alarm control outputs		Standard	Standard
Lockout and monitor modes		Standard	Standard
Source status output relay contacts		Standard	Standard
Modbus® RTU communication		Standard	Standard
Manual retransfer control input		Optional	Standard
Source 2 inhibit / load shed input		Optional	Standard
USB port—profile and data management			Standard
Preferred source selection			Standard
Dual generator capability			Standard
User configurable inputs/outputs			Standard
Advanced diagnostics and troubleshooting with pre-/post-event data capture			Standard
Integrated load metering			Optional
Load management with selective load shed			Optional
DC voltage control power input			Optional
Three-source ATS—master/slave control			Optional
Modbus TCP/IP communication ❶		Optional	Optional

❶ Modbus TCP/IP option requires use of Modbus RTU port.

ATS connectivity



HMi Remote Annunciator controller

Eaton's HMi Remote Annunciator Controller series provides users with the ability to remotely monitor and control multiple transfer switches from one intuitive, touchscreen user interface.

- Seven-inch color display with touchscreen graphical interface
- Remote monitor and control to include set point programming and metering data
- Password protection for all control and setup functions
- Mimic bus to include source availability, position indication and preferred source
- Date and time-stamped alarm history
- Flush-mount design
- Compatible with Eaton's ATC-300+, ATC-600, ATC-800 and ATC-900 automatic microprocessor controllers
- Modbus RTU and Ethernet communication
- Audible alarm with silence feature

Power Xpert® Gateway

The Power Xpert Gateway allows you to easily integrate your Eaton automatic transfer switch directly into your Ethernet infrastructure.

- Remotely monitor and manage your automatic transfer switch from any computer, via a secure Web browser interface
- Provides access to real time information from the ATC-300+ and ATC-900 automatic transfer switch controllers and other Eaton communicating devices
- Ability to integrate your automatic transfer switch into existing building management or network management systems to include protocol translation
- Provides optional email notification of user-defined events
- Serial networked
- Ethernet networked

Meter overview

Eaton's advanced meters provide accurate real-time system values, capture waveforms and system events, and display data directly on the device through on-board Web servers or through a software monitoring solution.

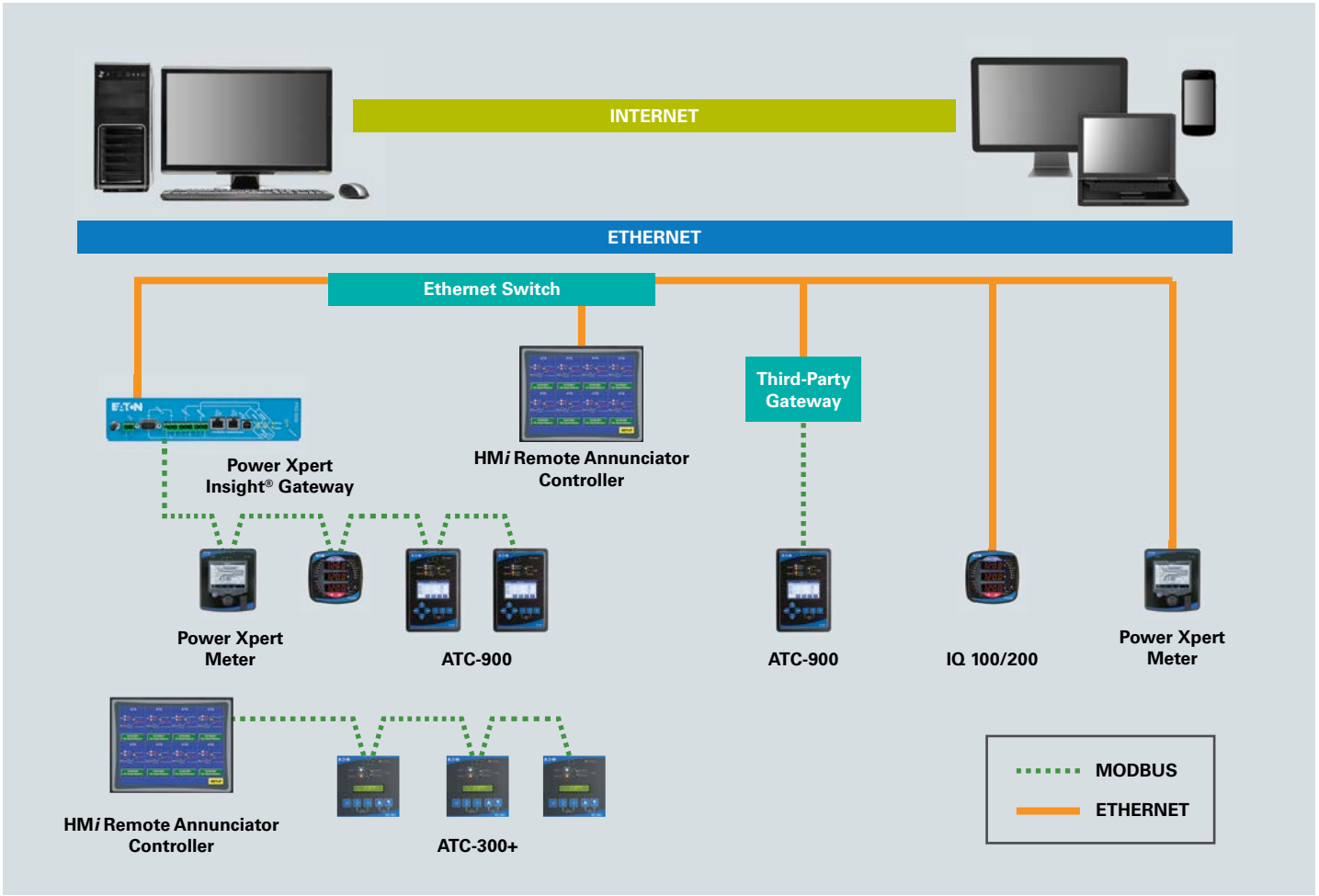
Featuring options that can be integrated in Eaton's automatic transfer switches. For details, go to **Eaton.com/meters**.

Available metering options with Eaton transfer switches

Feature	ATC-900 DCT	IQ 100 Series	IQ 200 Series	Power Xpert 2000 Series	Power Xpert 4000/6000/8000 Series
Instrumentation					
Current, per phase	■	■	■	■	■
Current demand	—	■	■	■	■
Calculated neutral current	—	■	■	■	■
Voltage, per phase (L–L, L–N)	L–L only	■	■	■	■
Min./max. readings I, V	—	■	■	■	■
Min./max. readings PF, F, W, VAR,VA	—	Opt	■	■	■
Frequency	■	Opt	■	■	■
Power					
Real, reactive and apparent power (W, VAR, VA)	■	Opt	■	■	■
Power factor, total	■	Opt	■	■	■
Real, reactive and apparent power demand	—	Opt	■	■	■
Demand methods					
Block interval (sliding, fixed)	—	Opt	■	■	■
Energy					
Real, reactive and apparent energy, total (Wh, VAR, VAh)	—	Opt	■	■	■
Data logging					
Storage	—	—	Opt 128 KB	256 MB	Std 2 GB Opt 4 or 8 GB
THD					
% THD amps and volts	—	—	40th	40th	127th
Interharmonics	—	—	—	—	Opt
Waveform					
Waveform recording, samples/cycle	—	—	—	Opt 64 or 512	4,096
Ind. bar harmonics view	—	—	—	Opt 40th	85th
Single cycle waveform view	—	—	—	Opt	X
I/O					
Digital input	—	—	Opt 2 or 3	Opt 2 or 4	8
Digital output	—	—	Opt 2 Form-C	Opt 2 Form-C	3
Analog output	—	—	Opt 3	Opt 4	—
Communications					
RS-485, Modbus RTU	■	Opt	■	■	■
RS-485, Modbus RTU/ASCII, KYZ output	—	Opt	■	■	■
Modbus TCP/IP (RJ-45)	—	Opt	■	■	■
HTTP (Web pages), SMTP (email), NTP (time sync), SNMP	—	—	■	■	■
BACnet/IP	—	—	■	■	■
Revenue accuracy					
ANSI C12.20 (0.5 or 0.2%)	—	0.50%	0.20%	0.20%	0.20%

■ = Standard feature.

Power Xpert Architecture



Surge protection devices

Eaton provides a full range of innovative, reliable surge protection solutions to help reduce costly downtime and protect sensitive electronic equipment against the damaging effects of transients caused by lightning, utility switching, load switching and more.

For more information, visit **Eaton.com/SPD**

SPV Series

The Eaton SPV Series is designed to simplify protection of sensitive electronics in commercial light industrial applications by combining surge suppression components and EMI/RFI filtering into a single, compact device.

CVX Series

The Eaton CVX Series is ideal for light industrial, commercial and OEM applications, providing high-quality protection from voltage transients. Designed for installation on service entrance, branch panels or individual equipment disconnects, the CVX Series provides enhanced surge protection for mission-critical applications. Units are available for all voltage configurations with surge capacity ratings of 50 and 100 kA.

SPD Series

The Eaton SPD Series is the latest and most advanced portfolio of surge protectors for commercial and industrial applications. Units are available in all common voltages and configurations, and in a variety of surge current capacity ratings from 50 to 400 kA.

Surge product series comparison

Product series	L–N protection mode	L–G & L–N protection mode	Per 0 kA range	EMI/RFI filtering attenuation	Nominal discharge current (In)	Short-circuit rating (SCCR)	Alarm contacts	Surge counter (option)	Warranty (years)
SPD	Yes	Yes	50–400	50 dB	20 kA	200 kA	Yes	Yes	15
SPV	Yes	Yes	50–200	40 dB	20 kA ❷	42 kA ❹	Yes	No	10
CVX	Yes	Yes ❶	50–100	No	20 kA ❸	100 kA	No	No	5

❶ 100 kA units only.

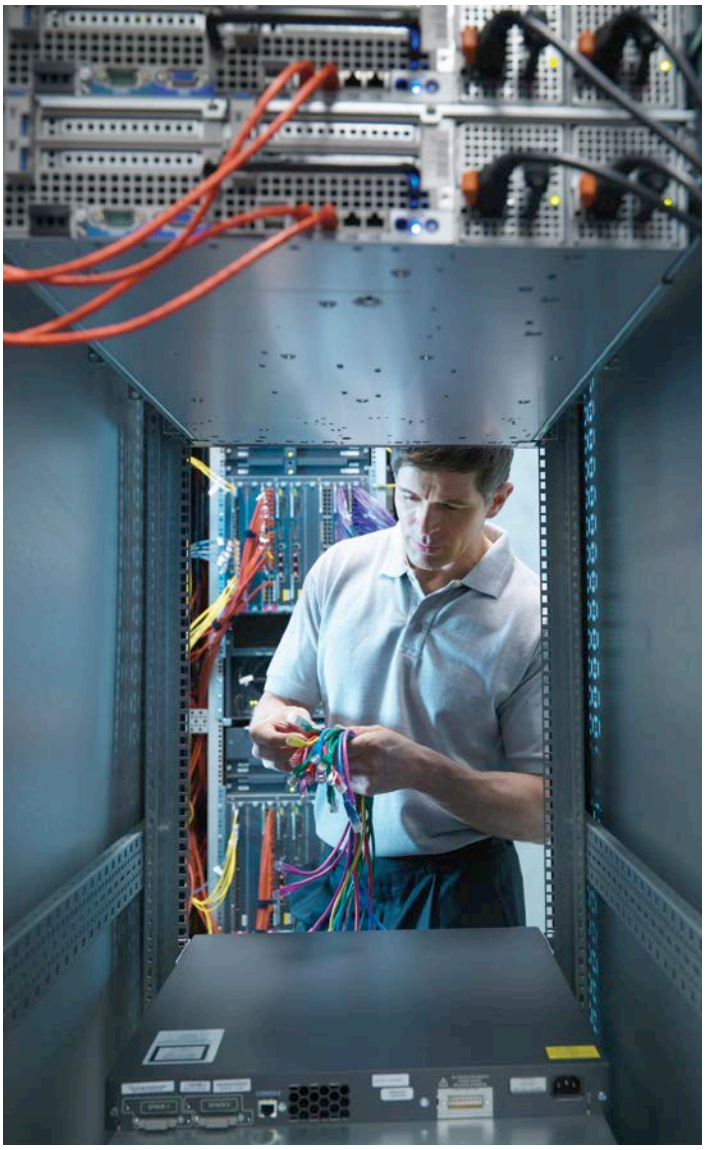
❷ 208Y, 240S, 240D, 400Y and 480YL units rated in 10 kA.

❸ 480L, 600D and 600Y units rated 10 kA.

❹ 5 kA SCCR for 400D and 480D.

Services and support

Eaton's comprehensive, world-class service solutions for all Eaton power distribution, software and connectivity products are designed to improve costs, uptime, reliability, power quality and safety. We demonstrate our commitment to strong, lasting customer relationships through our technical expertise and expansive support network. With 240 field technicians in North America, 1,200 international authorized service providers and more than 100 dedicated customer support team members, we are well-positioned to solve your toughest power management challenges.



Technical support services

Combining strong technical product expertise with in-depth industry applications experience, the transfer switch technical support organization possesses an innate ability to answer your questions and troubleshoot issues remotely. From guiding a customer through a system setup to resolving critical alarms, this dedicated team of industry professionals is here to help.

Primary services

- Installation, setup, usage and troubleshooting
- Internal field engineer support for complex installations
- Advanced application diagnostic support services

The Eaton advantage

Speed

The support staff is available 24x7 and, on average, answers your call and begins working on your question or issue in an average of 120 seconds.

Knowledge

Support engineers average 11 years of experience plus continuing education in the field and classroom.

Technology

Our field service engineers are armed with the latest equipment, including Dranetz PX5 disturbance analyzers, Fluke 1750/435 power quality recorders and Hioki power quality analyzers.

CUSTOM ORDER ENGINEERING

In many cases, standard product can be custom-order engineered to meet your application needs. For additional information, please contact your local Eaton sales representative.

The critical **need** for **reliable** backup **power**

Eaton offers the broadest range of automatic transfer switches available in today's critical power market, backed by a world-class service team with expert knowledge in electrical systems. Our expertise helps customers implement an automatic transfer switch solution specifically engineered to meet electrical reliability requirements regardless of application, budget or required customizations.

Featuring Eaton's automatic transfer switches

For more details, visit **Eaton.com/ATS**

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

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