Unmatched performance, safety and serviceability

Eaton has enhanced its comprehensive portfolio of UL® 1008 and CSA 178 listed bypass isolation ATS solutions with power contactor type designs specifically engineered for applications between 100 and 3000 A.

Our bypass isolation ATSs are not only simple to operate, but also available in a broad selection of configurations and features to meet a wide variety of application requirements.

When coupled with our extensive custom engineering capabilities, Eaton's innovative three-door bypass isolation ATS design, robust compartmentalized construction, and redundant automatic operation set the standard for concurrent serviceability, worker safety, and optimizing critical system uptime.

Features and benefits

Proven performance and reliability

- Automatic bypass switch provides operational redundancy and quickly restores power to critical loads when the ATS has been isolated for test or removed for service
- Automatic, non-automatic and manual ❶ operation modes provide multiple methods of transferring the load between power sources
- UL 1008 listed short-circuit and short-time ❷ withstand closing current ratings maximize system reliability
- Tethered remote control allows an operator to initiate a non-automatic transfer outside the arc flash boundary

Enhanced safety

- Unique three-door, compartmentalized design provides steel barriers protecting workers from energized components
- All doors open/close independently eliminating unnecessary exposure to adjacent compartments
- Integral safety interlocks automatically open the main contacts prior to the ATS or automatic bypass switch being isolated for test or removed for service
- Rear shutters ❷ automatically close to isolate bus stabs when the ATS or automatic bypass switch is being racked out

Improved serviceability

- Innovative three-door design eliminates the need to schedule shutdowns for routine test, inspection or maintenance
- Maintenance isolation switch (MIS) permits service personnel to electrically isolate control compartment elements and minimize shock hazard prior to beginning work —without disruption to critical loads
- Control compartment door and adjoining electrical panel slide forward from the enclosure to provide easy access to wiring and components
- Dual drawout design allows the ATS or automatic bypass switch to be disconnected from the electrical bus and isolated in cell for regular testing as prescribed by code (NFPA® 70, 99, 110)
- Testing of isolated switch can be performed while ATS or automatic bypass switch is in automatic or non-automatic mode of operation

Simplified installation and integration

- Field-configurable terminals allow cable ingress at top/bottom for power source and load connections
- Internal floor-mount anchors minimize footprint and facilitate efficient integration into an equipment lineup
- Seismic certified to OSHPD, CBC, IBC and UBC
- Front and rear access available

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❶ Manual operation (unloaded) provided for all product configurations; manual operation (under load) available for select catalog configurations.

❷ Feature/rating available for select catalog configurations.

Automatic bypass switch

With the upper door open, operators can draw out the automatic bypass switch for inspection or maintenance.

With the upper door closed, operators can rack out, isolate and test the automatic bypass switch in cell.

Automatic transfer switch

With the lower door open, operators can draw out the ATS for inspection or maintenance.

With the lower door closed, operators can rack out, isolate and test the ATS in cell.

MIS provides ability to electrically isolate control compartment elements prior to start of maintenance.

Control compartment door and adjoining electrical panel slide forward.

Safe, easy and spacious access to wiring and components.

Electrical load remains connected to power during maintenance procedures.

Design features

Dual automatic technology

Eaton's unique design includes an automatic bypass switch and an ATS within a single assembly to provide redundant automatic operation and uninterrupted power to critical loads.

Optimize reliability and maximize uptime

The automatic bypass switch and ATS can be racked out and isolated in cell for regular testing to ensure the entire bypass isolation transfer switch is maintained in proper operating condition.

Facilitate scheduled maintenance

The automatic bypass switch or ATS can be withdrawn for visual inspection and completely removed for bench testing without impacting automatic operation.

Enhance worker safety

The upper and lower doors can be operated independently, maintaining electrical isolation of the energized compartment.

Featuring simplified testing procedures for the ATS and automatic bypass switch

Testing… it's as easy as 1-2-3

A three-step operator interface helps simplify testing procedures of the automatic bypass switch or ATS when racked out to the isolated position.

Safe and serviceable

Engineered for safety, a three-door compartmentalized construction coupled with an MIS allow personnel to perform maintenance on the bypass isolation transfer switch while energized.

To mitigate shock hazard, the MIS can be placed in the *maintenance* position prior to opening the door, electrically isolating elements of the control compartment from system and control voltage.

Once isolated, the control compartment door can be opened and adjoining electrical panel slid forward, allowing a technician to safely inspect, troubleshoot and replace electrical components.

Upon completion, the door is closed and MIS returned to the *normal* operation position.

Multiple operation modes

Local operation is possible in the following modes:

- Automatic
- Non-automatic
- Manual ❶

In Automatic mode, the transfer switch is self-acting, and a transfer is automatically initiated by the intelligent controller logic.

In Non-Automatic mode, a transfer is initiated by the operator using a door-mounted selector switch or an optional tethered remote control.

In Manual mode, a transfer is initiated by the operator using controls mounted directly on the automatic bypass switch or ATS.

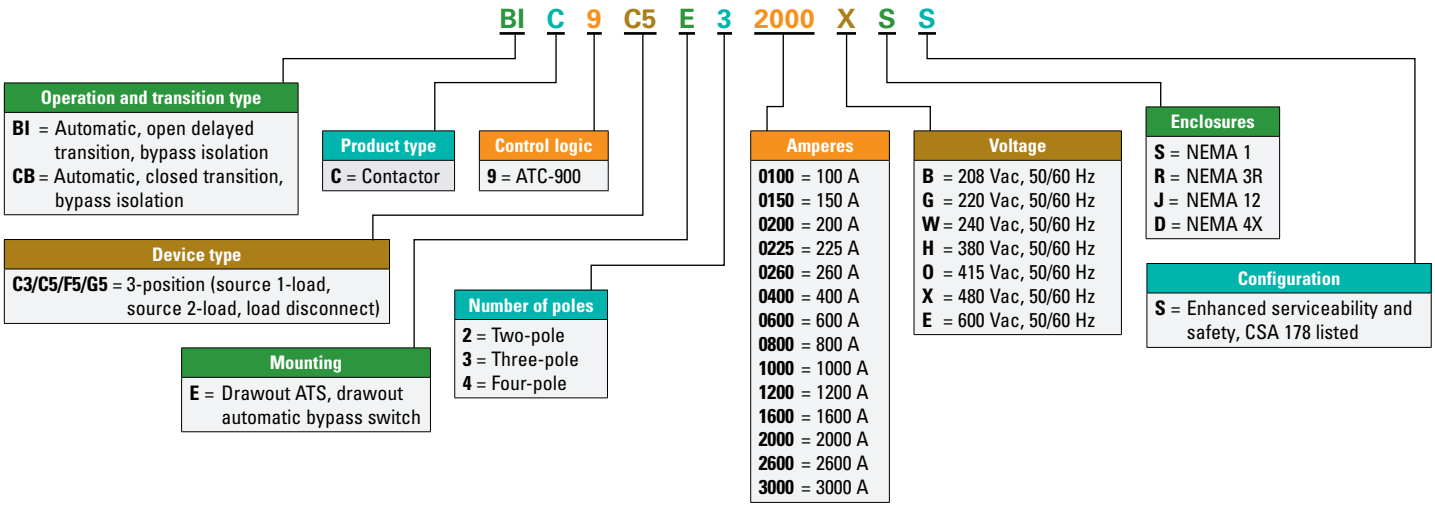
Alternatively, a transfer can be initiated remotely via an HMi remote annunciator controller or network communication.

Tethered remote control for non-automatic operation

❶ Manual operation (unloaded) provided for all product configurations; manual operation (under load) available for select catalog configurations.

Product selection

Catalog numbering system



Note: Some catalog number combinations may not be available. For additional information, please contact your local Eaton sales representative.

Technical specifications

Dimensions and weights

Ampere rating	Poles	Enclosure ❶	Height ❷	Width ❷	Depth ❷	Weight ❷
100–400	2, 3	NEMA 1	78.00 (1981.2)	32.90 (835.6)	30.00 (762.0)	1400 (636)
100–400	4	NEMA 1	78.00 (1981.2)	35.30 (896.6)	30.00 (762.0)	1460 (664)
600–1200	2, 3	NEMA 1	90.00 (2286.0)	40.00 (1016.0)	30.00 (762.0)	1900 (863)
600–1200	4	NEMA 1	90.00 (2286.0)	44.00 (1117.6)	30.00 (762.0)	1965 (893)
1600	2, 3	NEMA 1	90.00 (2286.0)	40.00 (1016.0)	40.00 (1016.0)	2170 (984)
1600	4	NEMA 1	90.00 (2286.0)	44.00 (1117.6)	40.00 (1016.0)	2425 (1100)
2000–3000	2, 3	NEMA 1	90.00 (2286.0)	44.00 (1117.6)	60.00 (1524.0)	3065 (1393)
2000–3000	4	NEMA 1	90.00 (2286.0)	44.00 (1117.6)	60.00 (1524.0)	3521 (1602)
100–400	2, 3	NEMA 3R	78.00 (1981.2)	32.90 (835.6)	47.59 (1996.2)	1650 (750)
100–400	4	NEMA 3R	78.00 (1981.2)	35.30 (896.6)	47.59 (1996.2)	1750 (795)
600–1200	2, 3	NEMA 3R	90.72 (2304.3)	40.00 (1016.0)	47.59 (1996.2)	2035 (925)
600–1200	4	NEMA 3R	90.72 (2304.3)	44.00 (1117.6)	47.59 (1996.2)	2100 (952)
1600	2, 3	NEMA 3R	90.72 (2304.3)	40.00 (1016.0)	57.59 (1462.8)	2526 (1146)
1600	4	NEMA 3R	90.72 (2304.3)	44.00 (1117.6)	57.59 (1462.8)	2800 (1270)
2000–3000	2, 3	NEMA 3R	90.00 (2286.0)	44.00 (1117.6)	78.69 (1524.0)	3369 (1531)
2000–3000	4	NEMA 3R	90.00 (2286.0)	44.00 (1117.6)	78.69 (1524.0)	3825 (1738)

❶ Check with your local Eaton sales representative for NEMA 12 and NEMA 4X enclosure specifications. NEMA 3R stainless steel available upon request.

❷ Dimensions in inches (mm) and weight in lb (kg). Data is approximate, subject to change, and representative of a typical product configuration. Please reference product outline drawing(s) for latest information. Custom-engineered enclosure options available upon request.

Terminal information for external power conductors

Ampere rating	Normal ❶❷	Emergency ❶❷	Load ❶❷	Neutral ❸
100–400	(1) #6–350	(1) #6–350	(1) #6–350	(3) 1/0–750
600	(2) 1/0–750 or (4) 1/0–250	(2) 1/0–750 or (4) 1/0–250	(2) 1/0–750 or (4) 1/0–250	(6) 1/0–750 or (12) 1/0–250
800–1200	(4) 1/0–750 or (8) 1/0–250	(4) 1/0–750 or (8) 1/0–250	(4) 1/0–750 or (8) 1/0–250	(12) 1/0–750
1600	(5) 1/0–750 or (10) 1/0–250	(5) 1/0–750 or (10) 1/0–250	(5) 1/0–750 or (10) 1/0–250	(16) 1/0–750
2000	(8) 1/0–750	(8) 1/0–750	(8) 1/0–750	(24) 1/0–750
2600–3000	(12) 1/0–750	(12) 1/0–750	(12) 1/0–750	(36) 1/0–750

❶ Standard mechanical lugs are UL listed, solderless screw-type Cu/Al. Number of conductors and size range shown is per pole and representative of typical product configuration.

❷ Two-hole compression lug or bus connect provisions available upon request. Please contact your local Eaton sales representative for more details.

❸ Only applies to wye system configuration with solid neutral. For four-pole (switched neutral) configurations, the number and size of conductors supported will mimic the Normal, Emergency and Load terminal information shown.

UL 1008 listed withstand closing current ratings

Transfer Switch Rating (A)	Device Type	Short-Circuit Withstand Closing Current Rating (kA)										Short-Time Withstand Closing Current Rating (kA)	
		When Protected by a Circuit Breaker		When Protected by a Specific Circuit Breaker		When Protected by a Specific Fuse						When Protected by a Circuit Breaker	
		Time Duration (0.05 sec. Max.)		Manufacturing and Type Based		Manufacturing and Type Based						Time Duration (0 5 sec Max)	
		480 Vac Max. (kA)	600 Vac Max. (kA)	480 Vac Max. (kA)	600 Vac Max. (kA)	480 Vac Max. (kA)	Fuse Class	Max. Fuse Size (A)	600 Vac Max. (kA)	Fuse Class	Max. Fuse Size (A)	480 Vac Max. (kA)	600 Vac Max. (kA)
100 150 200	C3, C5	30	22	50	35	200	RK1, RK5, J, C, K1, K5	600	200	RK1, RK5, J, C, K1, K5	600	—	
							L	800		L	800	—	
							T	1200		T	1200	—	
225 250 400	C3, C5	30	42	50	65	200	RK1, RK5, J, C, K1, K5	600	200	RK1, RK5, J, C, K1, K5	600	—	
							L	800		L	1600	—	
							T	1200		L	1600	—	
600 800	C3, C5	50	42	65	65	200	J, T, L, RK5	600	200	J, T, L, RK5	600	30 (1)	
							L	1600		L	1600	30 (1)	
1000 1200	C3, C5	50	42	65	65	200	J, T, L, RK5	600	200	J, T, L, RK5	600	—	
							L	1600		L	1600	—	
1600	C3, C5	50	—	65	—	200	J, T, L, RK5	600	—	—	—	—	—
							L	2000					
100–3000	F5	100	100	100	100	200	J, T, L, RK5	600	—	—	—	—	—
							L	2000					
100–3000	G5	100	100	100	100	200	J, T, L, RK5	600	—	—	—	85	85
							L	2000				85	85

(1) Time duration is 0.13 sec. maximum.

ATC-900—intelligent control

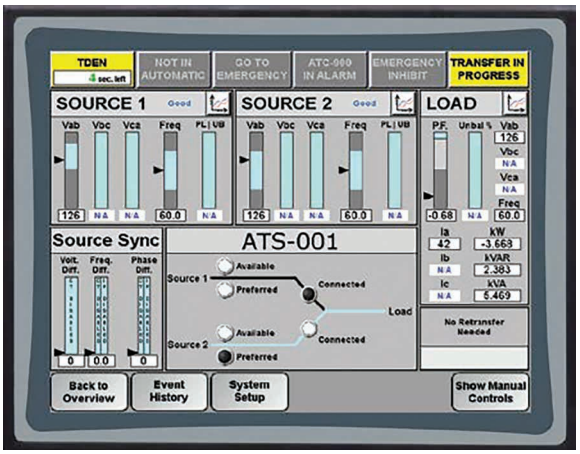
Eaton's ATC-900 controller brings ease of use, adaptability, supervisory and programming capabilities to mission-critical applications. The 4.3-inch color TFT display provides simple arrow keys for quick screen navigation and easy viewing of event logs as well as recorded time-stamped events. Field configuration of programmable I/O allows user adaptability to special requirements.

Description	Automatic controller ATC-900
Basic transfer control, plant exerciser, time delays, self diagnostics and system settings	Standard
Source mimic diagram with LED indication	Standard
Engine test and start contact	Standard
Dual source control power input	Standard
Liquid crystal display (LCD)	Standard
Programmable set points and plant exerciser	Standard
Password protection	Standard
Time stamped history and event log	Standard
Time delay bypass	Standard
Go to Source 2 control input	Standard
Pre-transfer and general alarm control outputs	Standard

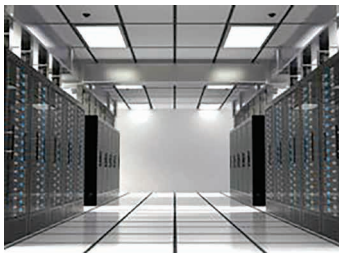
Description	Automatic controller ATC-900
Lockout and monitor modes	Standard
Source status output relay contacts	Standard
ModbusT RTU communication	Standard
Manual retransfer control input	Standard
Source 2 inhibit / load shed input	Standard
USB port—profile and data management	Standard
Preferred source selection	Standard
Dual generator capability	Standard
User-configurable input/outputs	Standard
Advanced diagnostics and troubleshooting with pre-/post-event data capture	Standard
Negative sequence voltage detection	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 A	Optional

HMi remote annunciator controller

Evolving arc flash regulations and requirements for personal protective equipment are driving more and more end users toward the use of remote monitoring and control devices. Eaton's HMi remote annunciator controller offers a simple and cost-effective means of managing up to eight ATSs via serial or ethernet communication.



Remote annunciator controller



Custom-order engineering

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

To learn more, contact your local sales representative or visit

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