Reliability, versatility and performance

3000 A rating shown

Eaton offers a comprehensive portfolio of UL® 1008 and CSA 178 Listed automatic transfer switch (ATS) solutions to meet a wide variety of backup power applications.

The contactor type ATS line is not only reliable and simple to operate, but also available in a broad selection of product configurations. When coupled with Eaton's extensive custom engineering capabilities, finding the right transfer switch for your project has never been easier.

Whether your needs are standard commercial, harsh industrial or mission critical, the robust construction and performance of an Eaton ATS sets the standard for maintaining power to critical loads and optimizing system uptime.

Product configurations

- Closed and open transition (in-phase, time delayed, load voltage decay)
- 40 A to 3000 A
- Two-, three- and four-pole
- Up to 600 Vac, 50/60 Hz
- Single- or three-phase
- Cam-Lok™ quick-connect terminals
- NEMA® 1, 12, 3R, 4X enclosure or open frame design
- Automatic transfer controller —ATC-900, ATC-300+

Codes and standards

- UL 1008 Listed
- CSA® C22.2 No. 178 Certified
- Seismic qualified—OSHPD, CBC, IBC, UBC Zone 4
- NFPA® 110 and National Electrical Code® (NEC®) Articles 700, 701, 702, 708

Features and benefits

- Automatic and non-automatic modes of operation
- Solenoid-operated double-throw power switch
- Mechanically interlocked to prevent simultaneous connection of both sources
- Quick-connect, multi-tap transformer panel derives control power from either source and permits field selection of system voltage
- Top/bottom cable entry
- Industry standard serial communication (Modbus® RTU)
- Auxiliary contacts indicate position of main contacts
- Dual automatic plant exercisers for scheduling unloaded and loaded engine-generator testing
- Programmable control inputs and relay outputs for load management
- Programmable transition fallback settings
- Advanced source sensing incorporates negative sequence voltage detection for identifying phase loss condition
- USB port for downloading power quality data, managing set point profiles and updating firmware

Options and accessories

- ATC-900 controller accessory modules:
  - DCT—integral power metering (load) and 24 Vdc external supply power
  - I/O—expand programmable control inputs (up to 20) and Form C relay outputs (up to 20)
- Advanced power quality metering (PXM series) of source or load
- Surge protective device
- 7-inch color touch HMi remote annunciator to monitor and control a single or multiple (up to eight) transfer switches
- Ethernet communication (Modbus TCP/IP, BACnet, EtherNet/IP)
- Thermostat controlled heater element for outdoor applications
- Compression lug terminals
- Non-automatic operator controls and indication lights

Powering Business Worldwide

Product selection—catalog numbering system

AT C 3 C5 X 3 0400 X S C

Operation and transition type
- **AT** = Automatic, open transition
- **NT** = Non-automatic, open transition
- **CT** = Automatic, closed transition

Product type
- **C** = Contactor

Control logic ❷
- **3** = ATC-300+
- **9** = ATC-900
- **E** = Electromechanical

Device type
- **C2** = 2-position (source 1-load, source 2-load) ❶
- **C3/C5/F5/G5** = 3-position (source 1-load, source 2-load, load disconnect)

Mounting
- **X** = Fixed

Number of poles
- **2** = Two-pole
- **3** = Three-pole
- **4** = Four-pole

Amperes

0040 = 40 A	**0600** = 600 A
0080 = 80 A	**0800** = 800 A
0100 = 100 A	**1000** = 1000 A
0150 = 150 A	**1200** = 1200 A
0200 = 200 A	**1600** = 1600 A
0225 = 225 A	**2000** = 2000 A
0260 = 260 A	**2600** = 2600 A
0400 = 400 A	**3000** = 3000 A

Voltage
- **A** = 120 V, 60 Hz
- **B** = 208 V, 60 Hz
- **E** = 600 V, 60 Hz
- **G** = 220 V, 50 Hz
- **H** = 380 V, 50 Hz
- **O** = 415 V, 50 Hz
- **W** = 240 V, 60 Hz
- **X** = 480 V, 60 Hz

Enclosure type
- **K** = Open frame
- **S** = NEMA 1
- **J** = NEMA 12
- **R** = NEMA 3R ❸
- **D** = NEMA 4X ❹

Configuration code
- **C** = CSA 178 listed
- **L** = Cam-lok termination, CSA 178 listed

❶ Limited to 400 A and below.

❷ Automatic operation requires controller selection.

❸ Stainless steel option available for 1600–3000 A. Check with factory.

❹ 304 or 316 grade stainless steel available for ratings up to 1200 A.

Standard and optional ATC controller features

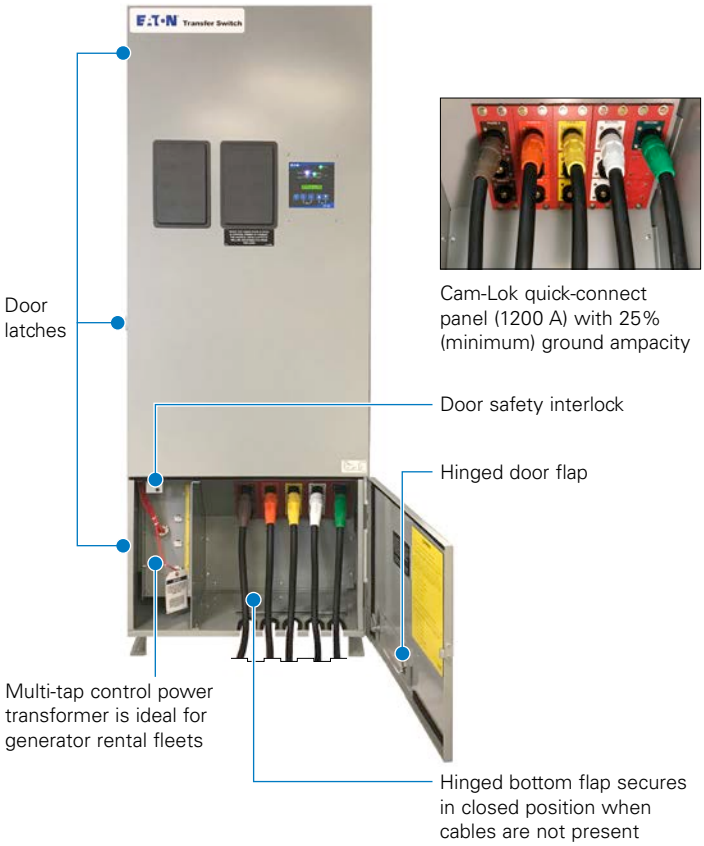
Description	Automatic controller ATC-300+	Automatic controller ATC-900
Basic transfer control, plant exerciser, time delays, self diagnostics and system settings	Std	Std
Source mimic diagram with LED indication	Std	Std
Engine test and start contact	Std	Std
Dual source control power input	Std	Std
Liquid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

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

Quick-connect Cam-Lok termination

Transfer switches can be configured with a Cam-Lok power panel for quick connection to a temporary emergency power source (engine-generator).

The color-coded power panel resides in an isolated compartment and is constructed of industry-standard 16 series Cam-Lok receptacles (male) mounted on a high- strength fiberglass-reinforced polyester material. Each Cam-Lok receptacle is rated for 400 A and can be equipped with an optional hinged cover. Ground ampacity can be specified as 25%, 50% or 100% of the transfer switch ampere rating.



Cam-Lok quick-connect panel (1200 A) with 25% (minimum) ground ampacity

Open transition—standard dimensions and weights ❶

Transfer switch rating (amperes)	Device type	Enclosure	Dimensions in inches (mm) Height	Width	Depth	Normal, emergency, load connection	Neutral connection ❷	Weight in Lb (kg)
40–100	C2	N1, N12, N3R	38.68 (982.5)	18.31 (465.1)	13.34 (338.8)	(1) #14–2/0	(3) #14–1/0	156 (71)
		N4X	37.50 (952.5)	17.50 (444.5)	14.34 (364.2)	(1) #14–2/0	(3) #14–1/0	156 (71)
150–200	C2	N1, N12, N3R	38.68 (982.5)	18.31 (465.1)	13.34 (338.8)	(1) #6–250 kcmil	(3) 1/0–250 kcmil	160 (73) ❸ 164 (74) ❹
		N4X	37.50 (952.5)	17.50 (444.5)	14.34 (364.2)	(1) #6–250 kcmil	(3) 1/0–250 kcmil	160 (73) ❸ 164 (74) ❹
225–400	C2	N1, N12, N3R	52.00 (1321.0)	19.81 (503.2)	16.75 (425.5)	(2) 1/0–250 kcmil/ (1) 1/0–750 kcmil	(6) 250–500 kcmil	250 (113) ❸ 260 (118) ❹
		N4X	52.00 (1321.0)	21.00 (533.4)	16.75 (425.5)	(2) 1/0–250 kcmil/ (1) 1/0–750 kcmil	(6) 250–500 kcmil	250 (113) ❸ 260 (118) ❹
40–100	C3, C5	N1, N12, N3R	52.00 (1321.0)	19.81 (503.2)	16.75 (425.5)	(1) #14–1/0	(3) #14–2/0	250 (113) ❸ 260 (118) ❹
		N4X	52.00 (1321.0)	21.00 (533.4)	16.75 (425.5)	(1) #14–1/0	(3) #14–2/0	250 (113) ❸ 260 (118) ❹
150–200	C3, C5	N1, N12, N3R	52.00 (1321.0)	19.81 (503.2)	16.75 (425.5)	(1) #6–250 kcmil	(3) 1/0–250 kcmil	250 (113) ❸ 260 (118) ❹
		N4X	52.00 (1321.0)	21.00 (533.4)	16.75 (425.5)	(1) #6–250 kcmil	(3) 1/0–250 kcmil	250 (113) ❸ 260 (118) ❹
225–400	C3, C5	N1, N12, N3R	52.00 (1321.0)	19.81 (503.2)	16.75 (425.5)	(2) 1/0–250 kcmil/ (1) 1/0–750 kcmil	(6) 250–500 kcmil	250 (113) ❸ 260 (118) ❹
		N4X	52.00 (1321.0)	21.00 (533.4)	16.75 (425.5)	(2) 1/0–250 kcmil/ (1) 1/0–750 kcmil	(6) 250–500 kcmil	250 (113) ❸ 260 (118) ❹
600	C3, C5	N1, N3R	79.41 (2017.0)	25.25 (641.4) ❸ 29.19 (741.4) ❹	22.46 (570.5)	(2) 1/0–750 kcmil	(12) 1/0–750 kcmil	600 (272) ❸ 650 (295) ❹
		N12, N4X	84.75 (2152.7)	29.00 (737.0)	24.26 (616.2)	(2) 1/0–750 kcmil	(12) 1/0–750 kcmil	700 (318) ❸ 750 (340) ❹
800–1200	C3, C5	N1, N3R	79.41 (2017.0)	25.25 (641.4) ❸ 29.19 (741.4) ❹	22.46 (570.5)	(4) 1/0–750 kcmil	(12) 1/0–750 kcmil	600 (272) ❸ 650 (295) ❹
		N12, N4X	84.75 (2152.7)	29.00 (737.0)	24.26 (616.2)	(4) 1/0–750 kcmil	(12) 1/0–750 kcmil	700 (318) ❸ 750 (340) ❹
1600	C3, C5	N1	90.00 (2286.0)	40.00 (1016.0)	29.00 (737.0)	(4) 1/0–750 kcmil	(12) 1/0–750 kcmil	1090 (494) ❸ 1150 (522) ❹
		N3R	90.72 (2304.3)	40.35 (1024.9)	47.59 (1209.0)	(4) 1/0–750 kcmil	(12) 1/0–750 kcmil	1200 (544) ❸ 1260 (571) ❹
800–2000	F5, G5	N1	90.00 (2286.0)	40.00 (1016.0)	40.00 (1016.0)	(8) 1/0–750 kcmil	(24) 1/0–750 kcmil	1400 (635) ❸ 1500 (680) ❹
		N3R	90.69 (2303.5)	40.00 (1016.0)	58.59 (1488.2)	(8) 1/0–750 kcmil	(24) 1/0–750 kcmil	1850 (839) ❸ 1900 (862) ❹
2600–3000	F5, G5	N1	90.00 (2286.0)	40.00 (1016.0)	40.00 (1016.0)	(12) 1/0–750 kcmil	(36) 1/0–750 kcmil	1400 (635) ❸ 1500 (680) ❹
		N3R	90.69 (2303.5)	40.00 (1016.0)	58.59 (1488.2)	(12) 1/0–750 kcmil	(36) 1/0–750 kcmil	1850 (839) ❸ 1900 (862) ❹

Closed transition—standard dimensions and weights ❶

Transfer switch rating (amperes)	Device type	Enclosure	Dimensions in inches (mm) Height	Width	Depth	Normal, emergency, load connection	Neutral connection ❷	Weight in Lb (kg)
40–100	C3	N1, N12, N3R	52.74 (1339.6)	25.00 (635.0)	17.18 (436.4)	(1) #14–2/0	(3) #14–1/0	190 (86) ❸ 200 (91) ❹
150–200	C3	N1, N12, N3R	52.74 (1339.6)	25.00 (635.0)	17.18 (436.4)	(1) #6–250 kcmil	(3) 1/0–250 kcmil	210 (95) ❸ 220 (100) ❹
225–400	C3	N1, N12, N3R	71.02 (1803.9)	31.11 (790.2)	14.72 (373.9)	(2) 1/0–250 kcmil/ (1) 1/0–750 kcmil	(6) 250–500 kcmil	420 (190) ❸ 440 (200) ❹
		N4X	71.50 (1816.1)	30.42 (772.6)	20.32 (516.1)	(2) 1/0–250 kcmil/ (1) 1/0–750 kcmil	(6) 250–500 kcmil	420 (190) ❸ 440 (200) ❹
600–1200	C3	N1	90.00 (2286.0)	46.00 (1168.4)	32.00 (812.8)	(2) 1/0–750 kcmil	(12) 1/0–750 kcmil	800 (363) ❸ 900 (408) ❹
		N12, N3R, 4X	90.72 (2304.2)	46.00 (1168.4)	49.66 (1261.3)	(2) 1/0–750 kcmil	(12) 1/0–750 kcmil	850 (385) ❸ 950 (431) ❹
1600–2000	F5/G5	N1	90.00 (2286.0)	40.00 (1016.0)	40.00 (1016.0)	(8) 1/0–750 kcmil	(24) 1/0–750 kcmil	1400 (635) ❸ 1500 (680) ❹
		N3R	90.69 (2303.5)	40.00 (1016.0)	58.59 (1488.2)	(8) 1/0–750 kcmil	(24) 1/0–750 kcmil	1850 (839) ❸ 1900 (862) ❹
2600–3000	F5/G5	N1	90.00 (2286.0)	40.00 (1016.0)	40.00 (1016.0)	(12) 1/0–750 kcmil	(36) 1/0–750 kcmil	1400 (635) ❸ 1500 (680) ❹
		N3R	90.69 (2303.5)	40.00 (1016.0)	58.59 (1488.2)	(12) 1/0–750 kcmil	(36) 1/0–750 kcmil	1850 (839) ❸ 1900 (862) ❹

❶ Dimensions and weights are applicable for a standard product configuration at 480 V and subject to change. Please reference product outline drawings for the latest detailed information.

❷ Neutral connection size listed is for product configuration with a solid neutral. For product configurations with a switched neutral (four-pole), reference the size listed in the Emergency/Load Connection column.

❸ Three-pole product configuration.

❹ Four-pole product configuration.

UL 1008 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.) ❶❷		Manufacturer and type based		Manufacturer 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)
40 80 100	C2	10	10	30	22	100	K5, RK5	200	100	K5, RK5	200	—	—
							K1, RK1	400		K1, RK1	400	—	—
							J, T	450		J, T	450	—	—
150 200	C2	10	22	30	35	100	K5, RK5	400	200	RK1, RK5, J, C, K1, K5	600	—	—
							J, K1, RK1	600		L	800	—	—
							T	800		T	1200	—	—
225 260 400	C2	30	—	50	—	200	RK1, RK5, J, C, K1, K5	600	200	J, T, L, RK5	600	—	—
							L	800		L	1600	—	—
							T	1200		L	1600	—	—
40 ❸ 80 ❸ 100 ❸ 150 ❸ 200 ❸	C3 ❸, C5	30 ❸	22 ❸	50 ❸	35 ❸	200 ❸	RK1, RK5, J, C, K1, K5	600	200 ❸	RK1, RK5, J, C, K1, K5	600	—	—
							L	800		L	800	—	—
							T	1200		T	1200	—	—
225 260 400	C3, C5	30	50	50	65	200	RK1, RK5, J, C, K1, K5	600	200	J, T, L, RK5	600	—	—
							L	800		L	1600	—	—
							T	1200		L	1600	—	—
600 800	C3, C5	50	50	65	65	200	J, T, L, RK5	600	200	J, T, L, RK5	600	30 ❹	—
							L	1600		L	1600	30 ❹	—
1000 1200	C3, C5	50	50	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					
800 1000 1200 1600 2000 2600 3000	F5, G5	100	100	100	100	200	J, T, L, RK5	600	—	—	—	85 ❺	85 ❺
							L	2000				85 ❺	85 ❺

❶ For open transition transfer switches rated 40–200 A (C2 device type), time duration is 0.025 sec maximum.

❷ For closed transition transfer switches rated 40–200 A (C3 device type), time duration is 0.025 sec maximum.

❸ For closed transition transfer switches rated 40–100 A (C3 device type) or 150–200 A (C3 device type), the short-circuit withstand closing current ratings associated with a C2 device type apply.

❹ Time duration is 0.13 sec maximum.

❺ G5 device type only.

Custom ordering

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

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