Eaton has expanded its robust portfolio of automatic transfer switch (ATS) solutions with a contactor-based design specifically for service entrance applications. The updated ATS is not only compact and cost-effective, it is also simple to operate while offering a highly flexible selection of configurations to optimize protection against momentary losses of power.

Available with ratings from 40 to 1600 A, the UL 1008 100% rated innovative ATS design enables a small footprint due to integration of the ATS and the breaker into a single structure. Installation can be made directly at the point of service entrance, which can eliminate the need for separate upstream fault protection and respective power interconnections.

**FEATURES AND BENEFITS**

**Enhanced flexibility**
- Withstand current ratings across the entire line allow you to easily select the right transfer switch for your application
- Rated for 40–1600 A up to 480 V in two-, three- or four-pole configurations, and available in open in-phase transition or delayed transition styles
- Available with Eaton Series G® breaker featuring a 310+ electronic trip unit provides adjustable ratings and breaker curve shaping

**Improved performance**
- Listed to UL 1008 with 100% load rating for reliable operation
- User-friendly front panel interface simplifies routine functions, programming and setting adjustments
- Seamless integration with Eaton’s ATC-300+ and ATC-900 controllers for intelligent monitoring, control and programming

**Increased safety**
- Separate compartments for the breaker and ATS section minimizes the potential for arc flash exposure
-Compartmentalized design reduces personal protection equipment (PPE) requirements during routine maintenance
- Optional 310+ trip unit with Arcflash Reduction Maintenance System™ can meet NEC® Section 240.87 for Arc Energy Reduction

**Simplified installation and maintenance**
- Service entrance design helps eliminate the need for separate upstream fault protection and respective power interconnections
- Separate breaker and ATS compartments provide easier access to cable entrance areas
- Contactor-based design features less moving parts for increased reliability and space savings
Integrated service entrance rating

The service entrance rated contactor design has been tested and listed to UL 1008 as suitable for use as service equipment with a 100% load rating. The integrated breaker and automatic transfer switch listing to UL 1008 eliminates application or sizing concerns when applying an ATS needing 100% load rating.

Separate compartments for ATS and breaker—600 to 1000 A, NEMA 1

The standard design includes a separate deadfront compartment for the incoming breaker and separate compartment for the ATS. This innovative design provides simplified access to cable entrance areas and can reduce personal protection equipment (PPE) requirements when performing installation or routine maintenance.

Electronic trip unit on SE breaker

The service entrance breaker is an Eaton Series G breaker with the 310+ trip unit that provides adjustable rating and breaker curve shaping. The trip unit comes with either LSI or LSIG curve shaping capability. The long delay and short delay functions enable the breaker curves to be manipulated for upstream and downstream breaker coordination.

Arclash Reduction Maintenance System

The Eaton 310+ electronic trip units address the NEC Section 240.87 for Arc Energy Reduction. These molded-case circuit breakers provide two approved methods to reduce arc energy: energy-reducing maintenance switching with local status indicator and zone selective interlocking.

Multi-tap voltage selector

Allows the transfer switch to be readily applied on most system voltages by connecting to the proper terminals. Available system voltages include 120, 208, 220, 240, 277 or 480 Vac, 60 Hz. Units 600 A or larger include the quick reconnect design multi-tap transformer.

Breaker operation

The upstream service rated breaker includes a door-mounted keyed switch that will allow the breaker to be tripped to the OFF position and electrically locked out. The keyed switch is a three-position switch that has a normal position, ATS to neutral position, and disconnect position that indicates the breaker has been tripped. Once in the disconnect position, the key may be removed. In addition, there is a ship loose handle hasp that allows the breaker handle to be mechanically locked out.
### Standard features

- **Auxiliary relay contacts:**
  - Source 1 present 2NO and 2NC
  - Source 2 present 2NO and 2NC
- **Switch position indication contacts:**
  - Source 1 position NO and 1NC
  - Source 2 position NO and 1NC
- **Source 1 and Source 2 sensing:**
  - Undervoltage/underfrequency
- **Overvoltage/overfrequency**
- **Three-phase rotation protection**
- **Three-phase voltage unbalance**
- **Pretransfer signal contacts 1NO/1NC (with three-position mechanism)**
- **Go to emergency (Source 2)**
- **Seven field-programmable time delays**
- **LCD-based display for programming, system diagnostics and Help message display**
- **Mimic diagram with source available and connected LED indication**
- **Time-stamped history log**
- **System TEST pushbutton**
- **Programmable plant exerciser—OFF, daily, 7-, 14-, 28-day interval selectable run time 0–600 minutes no load/load with fail-safe**
- **Modbus® RTU via RS-485**
- **Source 1 Eaton Series G breaker with 310+ electronic trip unit with LSI**

### Electrical ratings

- **Operating temperature**
  - –20 °C to +70 °C
  - (~4 °F to +158 °F)
- **Ratings 40, 80, 100, 150, 200, 225, 260, 400, 600, 800, 1000, 1200, 1600**
- **Two-, three- or four-pole (fourth pole is fully rated)**
- **Up to 480 Vac, 60 Hz**
- **NEMA® 1, 3R**
- **UL 1008 listed (CSA® C22.2 No. 178 certified), with 100% rated load capability**

### Optional features

- **Available UL 1449 Third Edition surge suppression device for power/controller, engine start circuit, phone and cable connections**
- **Space heater with thermostat**
- **Eaton IQ and Power Xpert® series metering**
- **Open in-phase transition, time delay neutral or in-phase with a default to time delay neutral transfer**
- **ATC-900 controller**
- **Source 2 Inhibit**
- **Manual retransfer**
- **Remote annunciator with control**
- **Ethernet communications (PXG Gateway)**
- **Breaker with LSIG electronic trip units**
- **Breaker with Arcflash Reduction Maintenance System**

### Service entrance rated contactor-based transfer switch 40–1600 A, 100% load rating—dimensions and approximate shipping weight

<table>
<thead>
<tr>
<th>Ampere rating</th>
<th>Enclosure</th>
<th>A (height)</th>
<th>B (width)</th>
<th>C (depth)</th>
<th>Normal</th>
<th>Emergency</th>
<th>Load</th>
<th>Neutral</th>
<th>Weight in lb (kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>40–100 at 480 V</td>
<td>N1/N3R</td>
<td>54.60 (1388.8)</td>
<td>19.81 (503.2)</td>
<td>17.59 (446.8)</td>
<td>[1] #14–2/0</td>
<td>[1] #14–2/0</td>
<td>[1] #14–2/0</td>
<td>(3) #14–1/0</td>
<td>190 (86)</td>
</tr>
<tr>
<td>150–200 at 480 V</td>
<td>N1/N3R</td>
<td>54.60 (1388.8)</td>
<td>19.81 (503.2)</td>
<td>17.59 (446.8)</td>
<td>[1] #6–250 kcmil</td>
<td>[1] #6–250 kcmil</td>
<td>(1) #6–250 kcmil</td>
<td>(3) #6–250 kcmil</td>
<td>200 (91)</td>
</tr>
<tr>
<td>225–400 at 480 V</td>
<td>N1/N3R</td>
<td>79.00 (2006.5)</td>
<td>25.25 (641.4)</td>
<td>22.46 (570.5)</td>
<td>[1] 3/0–750 kcmil</td>
<td>[2] 3/0–250 kcmil</td>
<td>(2) 3/0–250 kcmil</td>
<td>(6) 250–500 kcmil</td>
<td>300 (136)</td>
</tr>
<tr>
<td>600–800 at 480 V</td>
<td>N1/N3R</td>
<td>79.00 (2006.5)</td>
<td>40.12 (1019.0)</td>
<td>22.59 (573.8)</td>
<td>[4] 4/0–500 kcmil</td>
<td>(4) 1/0–750 kcmil</td>
<td>(4) 1/0–750 kcmil</td>
<td>(12) 4/0–500 kcmil</td>
<td>900 (409)</td>
</tr>
<tr>
<td>1000 at 480 V</td>
<td>N1</td>
<td>79.00 (2006.5)</td>
<td>40.37 (1025.4)</td>
<td>22.59 (573.8)</td>
<td>[4] 4/0–500 kcmil</td>
<td>(4) 1/0–750 kcmil</td>
<td>(4) 1/0–750 kcmil</td>
<td>(12) 4/0–500 kcmil</td>
<td>900 (409)</td>
</tr>
<tr>
<td>1200 at 480 V</td>
<td>N1</td>
<td>90.00 (2286.0)</td>
<td>40.00 (1016.0)</td>
<td>48.22 (1224.8)</td>
<td>[4] 500–1000 kcmil</td>
<td>(4) 1/0–750 kcmil</td>
<td>(4) 1/0–750 kcmil</td>
<td>(12) 4/0–500 kcmil</td>
<td>1400 (636)</td>
</tr>
<tr>
<td>1000–1200 at 480 V</td>
<td>N3R</td>
<td>90.00 (2286.0)</td>
<td>40.00 (1016.0)</td>
<td>62.50 (1587.5)</td>
<td>[4] 500–1000 kcmil</td>
<td>(4) 1/0–750 kcmil</td>
<td>(4) 1/0–750 kcmil</td>
<td>(12) 4/0–500 kcmil</td>
<td>1450 (658)</td>
</tr>
<tr>
<td>1600 at 480 V</td>
<td>N1</td>
<td>90.00 (2286.0)</td>
<td>40.00 (1016.0)</td>
<td>48.22 (1224.8)</td>
<td>[4] 500–1000 kcmil</td>
<td>(4) 1/0–750 kcmil</td>
<td>(4) 1/0–750 kcmil</td>
<td>(12) 4/0–500 kcmil</td>
<td>1600 (726)</td>
</tr>
<tr>
<td></td>
<td>N3R</td>
<td>90.00 (2286.0)</td>
<td>40.00 (1016.0)</td>
<td>62.50 (1587.5)</td>
<td>[4] 500–1000 kcmil</td>
<td>(4) 1/0–750 kcmil</td>
<td>(4) 1/0–750 kcmil</td>
<td>(12) 4/0–500 kcmil</td>
<td>1650 (749)</td>
</tr>
</tbody>
</table>

* Four-pole is 44.07 (1119.4).
### Catalog numbering system

- **Type**
  - AT = Automatic
  - NT = Non-automatic
- **Logic**
  - 3 = ATC-300+
  - 9 = ATC-900
  - E = Electromechanical
- **Orientation**
  - C = Contactor
- **Mechanism**
  - C2 = In-phase only
  - C3 = Time delay neutral (TDN) only
  - C5 = In-phase / TDN transfer
- **Number of poles**
  - 2 = Two-pole
  - 3 = Three-pole
  - 4 = Four-pole
- **Amperes**
  - 0040 = 40 A
  - 0080 = 80 A
  - 0100 = 100 A
  - 0150 = 150 A
  - 0200 = 200 A
  - 0225 = 225 A
  - 0260 = 260 A
  - 0400 = 400 A
  - 0600 = 600 A
  - 0800 = 800 A
  - 1000 = 1000 A
  - 1200 = 1200 A
  - 1600 = 1600 A

### UL 1008 short-circuit withstand and close-on ampere ratings

<table>
<thead>
<tr>
<th>UL 1008 amperes</th>
<th>Mechanism</th>
<th>Withstand current ratings (rms symmetrical)</th>
</tr>
</thead>
<tbody>
<tr>
<td>40, 80, 100</td>
<td>C2</td>
<td>30,000</td>
</tr>
<tr>
<td>150, 200</td>
<td>C2</td>
<td>30,000</td>
</tr>
<tr>
<td>225, 260, 400</td>
<td>C2</td>
<td>50,000</td>
</tr>
<tr>
<td>40, 80, 100, 150, 200</td>
<td>C3, C5</td>
<td>50,000</td>
</tr>
<tr>
<td>225, 260, 400</td>
<td>C3, C5</td>
<td>50,000</td>
</tr>
<tr>
<td>600, 800, 1000, 1200</td>
<td>C3, C5</td>
<td>65,000</td>
</tr>
<tr>
<td>1600</td>
<td>C3, C5</td>
<td>65,000</td>
</tr>
</tbody>
</table>

- **Voltage**
  - A = 120 V, 60 Hz
  - B = 208 V, 60 Hz
  - W = 240 V, 60 Hz
  - X = 480 V, 60 Hz

- **Certification**
  - U = UL listed

- **Enclosure**
  - S = NEMA 1
  - R = NEMA 3R

### ATC-300+ and ATC-900 controller features

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

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