Circ1ATS Series

High Voltage AC Automatic Transfer Switches

Models Include:

Circ1ATS

- High Voltage AC Automatic Transfer Switch (Board Only).

Circ1ATSE

- High Voltage AC Automatic Transfer Switch in Enclosure.

Installation Guide

CE

Altronix®

Rev. 021825

More than just power.™

Installing Company: _____ Service Rep. Name: _____

Address: _____ Phone #: _____

Overview:

Altronix Circ1ATS Series are High Voltage Redundant automatic transfer switches that can be added to any Altronix power supply with a high voltage input. Circ1ATS accepts connections from two (2) independent high voltage AC sources (Primary and Secondary) and provides a single redundant High Voltage AC Output. If AC Power is lost on the Primary input, the Circ1ATS automatically transfers to the Secondary AC Power input without delay, ensuring that system security is maintained.

Specifications:

Agency Listings:

- CE European Conformity.

Input:

- Two (2) Independent AC Inputs:
  120VAC or 240VAC (50/60 Hz), up to 10A each.

Output:

- One (1) AC output: 120VAC or 240VAC up to 10A.

Supervision:

- AC Failure (Primary and Secondary Inputs)
  Form "A" Normally Closed.

LED Indicators:

- **Input** LED Indicators of
  Primary and Secondary Power

Features:

- Removable AC Terminal Blocks
- Brownout Threshold Adjustment.
- Restore Delay Adjustment.

Dimensions:

- **Circ1ATS:**
  5.5" x 3" x 0.75" (139.7mm x 76.2mm x 19.1mm).
- **Circ1ATSE:**
  8.125" x 7.4" x 3.55"
  (206.4mm x 188mm x 90.2mm).

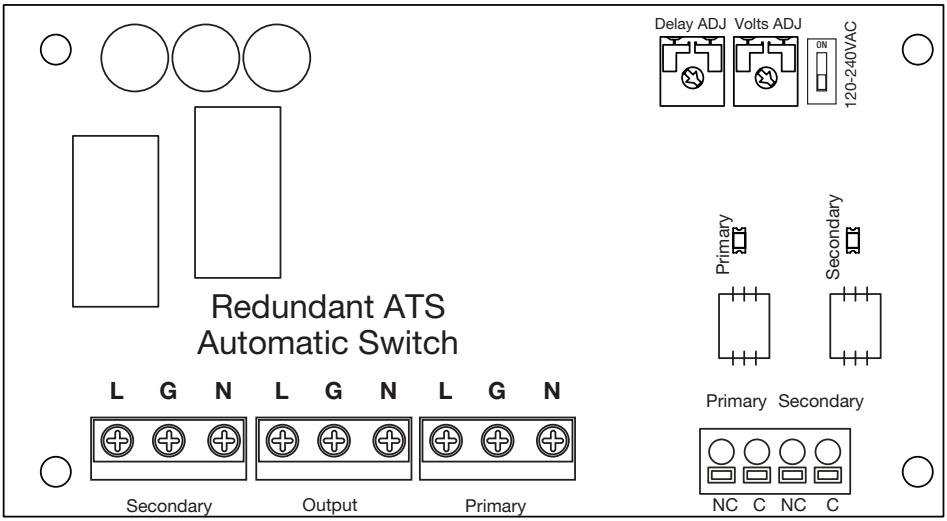
Installation Instructions:

Products should be installed by a skilled person in accordance with The National Electrical Code and all applicable Local Regulations.

1. **Circ1ATS:** Mount the board in the desired location/enclosure (mounting hardware included).
2. **Circ1ATSE:** Mount unit in the desired location. Mark and predrill holes in the wall to line up with the top two keyholes in the enclosure. Install two upper fasteners and screws in the wall with the screw heads protruding. Place the enclosure's upper keyholes over the two upper screws, level and secure. Mark the position of the lower two holes. Remove the enclosure. Drill the lower holes and install the three fasteners. Place the enclosure's upper keyholes over the two upper screws. Install the two lower screws and make sure to tighten all screws *(Enclosure Dimensions, pg. 4)*. Secure enclosure to earth ground.
3. Circ1ATS can operate with either 120VAC or 240VAC inputs.
   Do not connect different voltage inputs simultaneously.
   Use [120-240VAC] switch to select input power prior to connecting power sources.
4. Connect primary 120VAC or 240VAC source to terminals marked [Primary L G N].
   Connect secondary 120VAC or 240VAC source to terminals marked [Secondary L G N].
   Use 18 AWG or larger for all power connections.
   Keep power-limited wiring separate from non power-limited wiring (120VAC or 240VAC Input). Minimum 0.25" spacing must be provided.
   CAUTION: Do not touch exposed metal parts. Shut branch circuit power before installing or servicing equipment. There are no user serviceable parts inside.
   Refer installation and servicing to qualified service personnel.
5. Measure output voltage before connecting devices. This helps avoiding potential damage.
6. Connect devices to be powered to terminals marked [Output L G N].
7. Connect appropriate signaling notification devices to [Primary NC C] and secondary [Secondary NC C] AC FAIL supervisory relay outputs. Use 22AWG to 18AWG wires.
8. **Brownout Threshold Adjustment:** in the event of brownout of the primary source, Circ1ATS will automatically switch to the secondary source.
   Brownout thresholds are: 90-110 VAC for 120VAC input and 180-220 VAC for 240VAC input
   To adjust the brownout threshold: remove all power, turn **Volts Adj** trimpot clockwise to increase and counterclockwise to decrease the threshold.
9. **Restore Delay Adjustment:** when voltage is restored after brownout, Circ1ATS can wait for up to 6 seconds before switching back to the original power source. To adjust the delay time (2 secs. to 20 secs.), turn **Delay Adj** trimpot clockwise to increase the delay time and counterclockwise to decrease it.

WARNING: To reduce the risk of fire or electric shock, do not expose the unit to rain or moisture. This installation should be made by qualified service personnel and should conform to the National Electrical Code and all local codes.

Fig. 1 - **Circ1ATS**

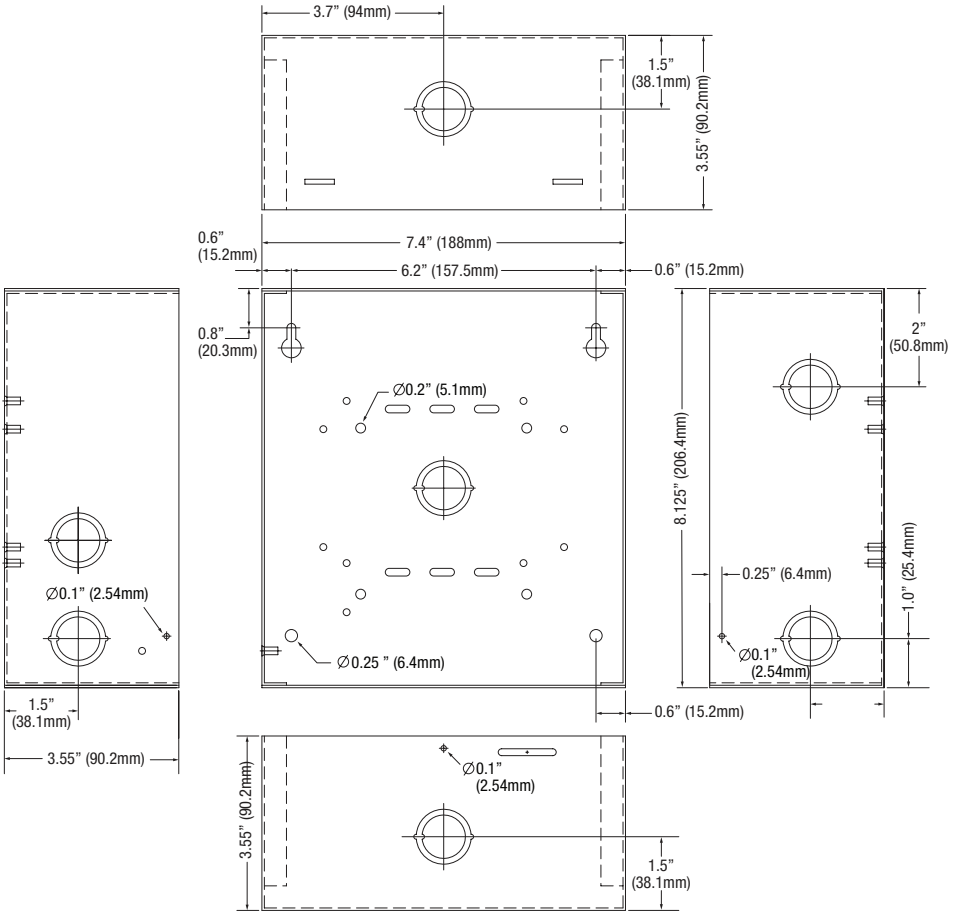


Terminal Identification:

Terminal Legend	Function/Description
Primary L, G, N	Connect primary 120VAC or 240VAC source to these terminals: L to hot, G to ground, N to neutral.
Secondary L, G, N	Connect secondary 120VAC or 240VAC source to these terminals: L to hot, G to ground, N to neutral.
Output L, G, N	Connect device to be powered to these terminals: L to hot, G to ground, N to neutral.
Primary/Secondary NC, C	Used to notify loss of AC power, e.g.connect to audible device or alarm panel. Relay normally energized when AC power is present. Contact rating 1A @ 28VDC.

LED Diagnostics:

Primary	Secondary	Power Supply Status
Blinking	OFF	Primary input power source is used.
OFF	Blinking	Secondary input power source is used.

Enclosure Dimensions (H x W x D approximate)**:**

8.125" x 7.4" x 3.55" (206.4mm x 188mm x 90.2mm)