

# Power Series Transfer Switch

ATC-300+

Open and Delayed Transition Controller

- Automatic Transfer Switch, Open and Delayed Transition Controller
- Up to 600 VAC, 50/60 Hz
- Single and Three Phase
- UL Recognized Component

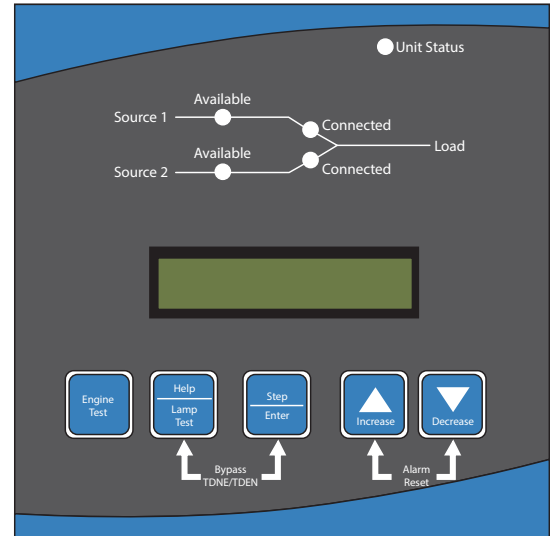


Image used for illustration purposes only

## Codes and Standards



UL recognized component, complies with UL1008 and UL991



NFPA 37, 70, 99, 110 (complies)



Applicable for use in NEC 700, 701, 702, 708



ISO 3046, 7637, 8528, 9001, Pluses #2b, 4



ANSI C62.41



Seismic IBC 2009, CBC 2010, IBC 2012, ASCE 7-05, ASCE 7-10, ICC-ES AC-156 (2012) Certified in ATS assemblies



IEC 61000-4-2, 3, 4, 5, 6, 11 EMC Testing and Measuring (complies)



FCC Part 15, Class A (complies)

CISPR 11, Class A

## Description

The ATC-300+ microprocessor-based ATS controller is unmatched in performance, reliability and functionality for critical operating, emergency, legally required and optional power systems. The easy to use front LCD display panel simplifies programming, routine operation, data presentation, and setting adjustments. The mimic diagrams displays source availability and connection, providing “at a glance” indication, further simplifying users interface. Designed beyond industry EMC standards, the ATC-300+ is rock-solid for transfer control operations, monitoring and reporting.

Customer/factory established parameters are stored in non-volatile memory. The controller has field-programmable time delays, plus displays real-time and historical information with a time-stamped history log. System testing is performed via a front screen test pushbutton. Features also include programmable plant exerciser—OFF, daily, 7, 14, 28-day interval programmable run times. With the standard features of pretransfer contacts, 3 phase sensing on utility and generator source, phase unbalance, phase reversal, load shed/emergency inhibit, and communications (Modbus® RTU) the ATC-300+ is the industry benchmark for transfer switch controllers. The ATC-300+ complies with UL 1008 / CSA C22.2-178.

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## STANDARD FEATURES

### GENERAL

- Monitors Both Voltage and Frequency on Utility and Generator
- Provides Undervoltage and Overvoltage Protection of the Utility and Generator Power Sources
- Provides Underfrequency and Overfrequency Protection of the Utility Generator Power Source
- Permits Easy Customer Set Up
- Displays Real-time and Historical Information
- Permits System Testing
- Stores Customer/Factory Established Parameters in Nonvolatile Memory
- Provides Faceplate Source Status Indications

### INPUT FUNCTIONS

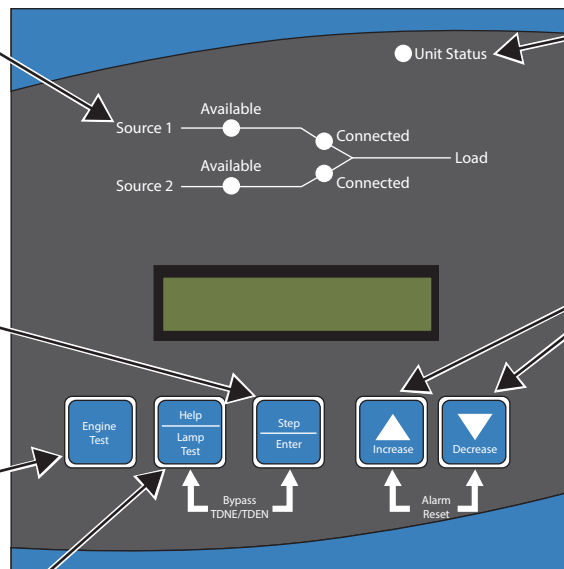
- Help/Lamp Test
- Engine Test
- Step/Enter
- Increase
- Decrease
- Alarm Reset
- Bypass Time Delay

### OUTPUT FUNCTIONS

- Unit Status
- Utility Available
- Utility Connected
- Generator Available
- Generator Connected

#### Source 1, Source 2, and Load LEDs:

Shows status of both Sources and Load.



#### Unit Status LED:

Blinks once per second while the controller is in "Run" mode to indicate the controller has completed a self-diagnostic and system diagnostic cycle.

#### Step/Enter Button:

Allows for navigation through information and setpoint displays.

#### Increase/Decrease Buttons:

Increase or decrease setpoint values.

#### Engine Test Button:

Allows for testing of the Source 2 (generator) engine.

#### Help/Lamp Test Button:

Displays additional information about what is on the screen or, when pressed from the Home Screen, momentarily illuminates all LEDs and displays information such as the controller serial number and firmware version.

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## SPECIFICATIONS AND PROGRAMMABLE SETPOINTS

### SPECIFICATIONS

System Application Voltage	Up to 600 VAC RMS	50/60 Hz
Input Control Voltage	65 to 145 VAC	50/60 Hz
Voltage Measurements of	Utility VAB	Generator VAB
	Utility VBC	Generator VBC
	Utility VCA	Generator VCA
Voltage Measurement Range	0 to 790 VAC RMS	50/60 Hz
Voltage Measurement Accuracy	± 1% of Full Scale	
Frequency Measurements of	Utility and Generator (Source 1 and Source 2)	
Frequency Measurement Range	40 Hz to 70 Hz	
Frequency Measurement Accuracy	± 0.3 Hz Over the Measurement Range	
Operating Temperature Range	-4 to +158 °F (-20 to +70 °C)	
Storage Temperature Range	-22 to +185 °F (-30 to +85 °C)	
Operating Humidity	0 to 95% Relative Humidity (Non-condensing)	
Operating Environment	Resistant to Ammonia, Methane, Nitrogen, Hydrogen, and Hydrocarbons	
Generator Start Relay	5 A, 1/6 HP @ 250 VAC 5 A @ 30 VDC with a 150 W Maximum Load	
K1, K2 Relays	10 A, 1-3 HP @ 250 VAC	
	10 A @ 30 VDC	

### PROGRAMMABLE SETPOINTS

Undervoltage Dropout Range	Breaker/Switch Style ATS	50% to 97% of the Nominal System Voltage
	Contactactor Style ATS	78% to 97% of the Nominal System Voltage
Undervoltage Pickup Range	Breaker/Switch Style ATS	(Dropout +2%) to 99% of the Nominal System Voltage
	Contactactor Style ATS	(Dropout +2%) to 99% of the Nominal System Voltage
Overvoltage Dropout Range	Breaker/Switch Style ATS	105% to 120% of the Nominal System Voltage
	Contactactor Style ATS	105% to 110% of the Nominal System Voltage
Overvoltage Pickup Range	Breaker/Switch Style ATS	103% to (Dropout -2%) of the Nominal System Voltage
	Contactactor Style ATS	103% to (Dropout -2%) of the Nominal System Voltage
Underfrequency Dropout Range	Breaker/Switch Style ATS	90% to 97% of the Nominal System Frequency
	Contactactor Style ATS	90% to 97% of the Nominal System Frequency
Underfrequency Pickup Range	Breaker/Switch Style ATS	(Dropout +1Hz) to 99% of the Nominal System Frequency
	Contactactor Style ATS	(Dropout +1Hz) to 99% of the Nominal System Frequency
Overfrequency Dropout Range	Breaker/Switch Style ATS	103% to 110% of the Nominal System Frequency
	Contactactor Style ATS	103% to 105% of the Nominal System Frequency
Overfrequency Pickup Range	Breaker/Switch Style ATS	101% to (Dropout -1Hz) of the Nominal System Frequency
	Contactactor Style ATS	101% to (Dropout -1Hz) of the Nominal System Frequency

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### ADDITIONAL PROGRAMMABLE SETPOINTS

Time Delay Nml to Emr	0 to 1,800 seconds
Time Delay Emr to Nml	0 to 1,800 seconds
Time Delay Engine Cool	0 to 1,800 seconds
Time Delay Engine Start	0 to 120 seconds
Time Delay Neutral <sup>1</sup>	0 to 120 seconds
Time Delay Source 2 Fail	0 to 6 seconds
Time Delay Volt Unbal	10 to 30 seconds
Volt Unbal 3-Phase	0 or 1 (1 = Enable)
% of Unbal Volt Dropout	5% to 20% (DO)
	Dropout -2% to 3% (PU)
Nominal Voltage	120 to 600 Volts
Nominal Frequency	50 or 60Hz
Baud Rate	9,600 or 19,200
Phase Reversal 3-Phase	OFF, ABC, or CBA
In-Phase <sup>2</sup>	0 or 1 (1 = Enable)
Pre-Transfer Signal	1 to 120 seconds
Manual/Retransfer	0 or 1 (1 = Enable)
Plant Exerciser	Off, Daily, 7-Day, 14-Day, 28-Day Intervals
	0 to 600 minutes
	Load or No Load
Daylight Svgs Time Adj	0 or 1 (1 = Enable)
System Selection	Utility/Generator or Dual Utility
Modbus Address	1 to 247
Communications	Modbus <sup>®</sup> RTU
	Ethernet and/or Remote Annunciator (Optional)
Applicable Testing	UL Recognized Component
	UL 1008, UL 991 Environmental
	IEC 61000-4-2, 61000-4-3, 61000-4-4, 61000-4-5, 61000-4-6, 61000-4-11
	CISPR 11, Class A
	FCC Part 15, Class A
Enclosure Compatibility	NEMA 1, NEMA 3R, NEMA 4X, and NEMA 12
	UV Resistant ATC-300+ Faceplate

1. Not available on open transition with inphase only switches
2. Not available on molded case type switches