

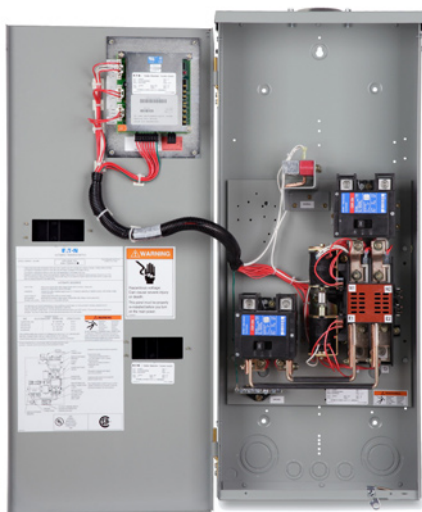
EATON

Cutler-Hammer

Automatic Transfer Switches

Product Aid

Residential Light Commercial
Contractor Based Design
Open Transition



Service Entrance Rated Switch

Standard Features

- Proven, highly reliable microprocessor-based logic provides full automatic operation.
- 100 and 200 ampere ratings for use on 120/240 Vac and 208 Vac, 60 Hz single-phase systems only.
- Fixed time delays provide simple operation — without user programming.
- Four separate time delays:
 - Engine Start
 - Normal to Emergency
 - Emergency to Normal
 - Engine Cooldown
- Automatic Plant Exerciser
- Indoor/outdoor NEMA® 1 and 3R enclosures.

- Only four connections for the installer to complete: utility power, generator power, load circuits and engine start.
- Hinged door with lockable cover.
- UL® 1008 listed.

Service Entrance Benefits

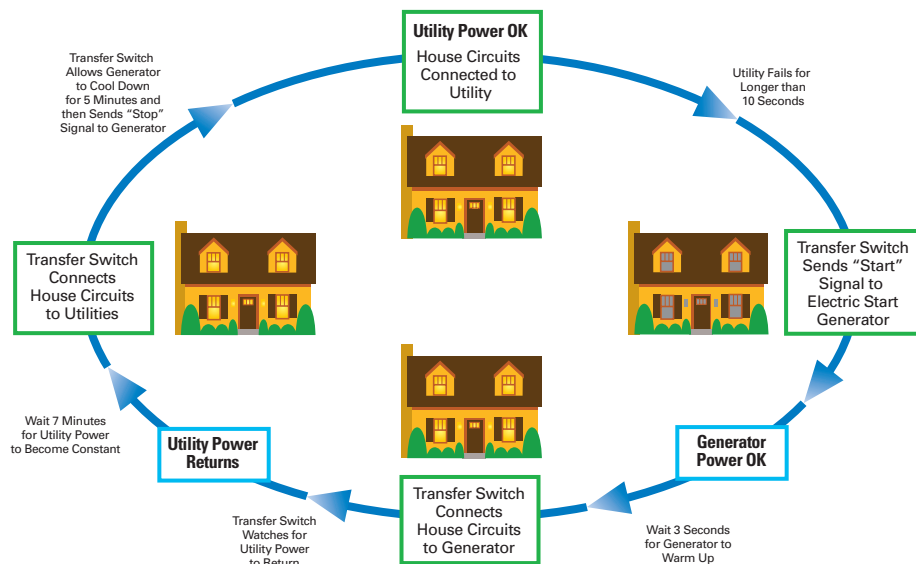
- The RLC1 is available rated for service entrance. This means that integral overcurrent protection is installed in the switch so the RLC1 can be installed at the point of service entrance without the need for upstream disconnect device.
- Combined service disconnect, overcurrent protection, and ATS reduces overall equipment and installation costs.

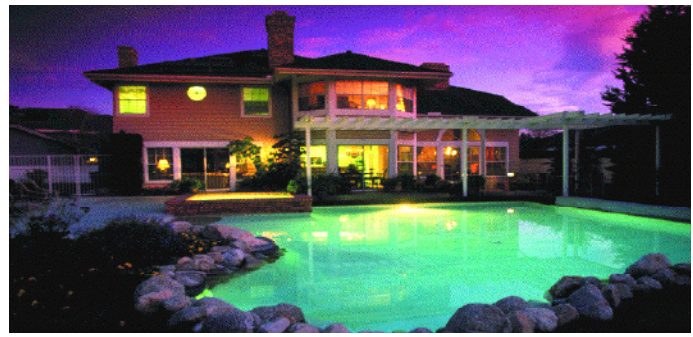
Security for Your Business or Home

A Cutler-Hammer® Automatic Transfer Switch from Eaton's electrical business and your generator will provide a reliable and safe Backup Power System for your business or home.

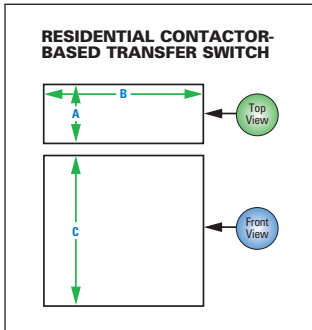
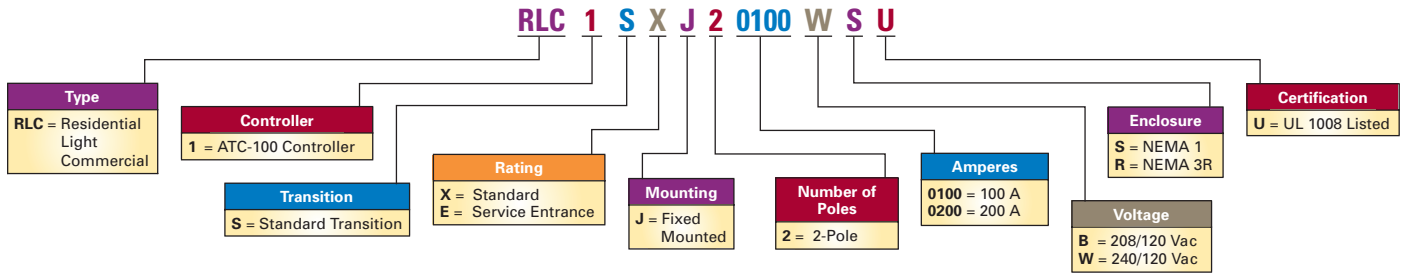
- Prevent loss of power during a utility power failure.
- Prevent personal injury and generator damage.
- Prevent the loss of computer data from extended outages.
- Prevent property loss due to freezing or loss of refrigeration.

Sequence of Operation — Cutler-Hammer RLC1 Automatic Transfer Switch





RESIDENTIAL CONTACTOR-BASED TRANSFER SWITCH CATALOG NUMBERING SYSTEM



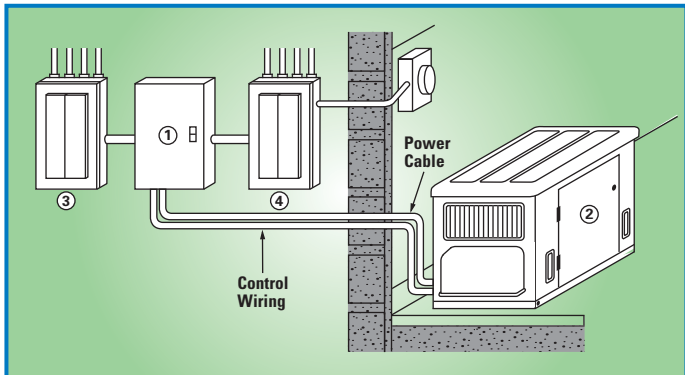
RESIDENTIAL CONTACTOR-BASED TRANSFER SWITCH DIMENSIONS IN INCHES (MM), WEIGHTS IN POUNDS (KG), POWER CABLE CONNECTIONS AND WITHSTAND AND CLOSE-ON RATINGS

Dimensions	Switch Rating Amperes		Service Entrance Amperes	
	100	200	100	200
A	5.35 (135.9)	5.35 (135.9)	5.35 (135.9)	5.35 (135.9)
B	14.46 (367.3)	14.46 (367.3)	14.46 (367.3)	14.46 (367.3)
C	29.20 (742)	29.20 (742)	29.20 (741.7)	34.20 (868.7)
Weights	26 (11.8)	38 (17.3)	38 (17.3)	40 (18.2)
Wire Size Range (AWG)	(1) #14 to 2/0	(1) #4 to 300	(1) #14 to 2/0	(1) #4 to 300
Withstand Rating	22,000	25,000	10,000	10,000

Additional Solutions Available up to 1000 Amps

Single Phase Solutions available up to 1000 amps in a Non-Service Entrance and Service Entrance rating using the ATC-300 Controller. Contactor based and breaker based designs are available. Consult your local Eaton Sales Representative or distributor for additional information tailored to your application.

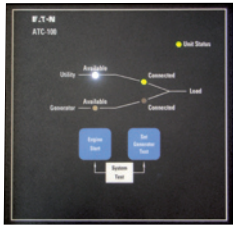

Typical Installation of a Residential or Light Commercial Automatic Transfer Switch



The automatic transfer switch (1) and the generator (2) are connected to the incoming distribution panel. The automatic transfer switch is located between the emergency distribution panel (3) and the incoming utility distribution panel (4).

OPTION KITS (ORDERED SEPARATELY)

Option Kit	Catalog Number
Surge Protection Kits - Whole House Protection	
Standard Switch	RLCTVSS
Service Entrance Switch	RLCSETVSS
Telephone Option	RLCTVSTEL
Cable Option	RLCTVSSCBL
Load Shed	RLCLDSED

Description	ATC-100 (for RLC1 ATS)	ATC-300 (for ATC300 ATS)
		
System Application Voltage	120/240 V, 208 V Single-Phase	Up to 600 Vac
Voltage Specifications		
Voltage Measurements of:	Source 1 and 2	Source 1 and 2 — VAB, VBC and VCA
Voltage Measurement Range	120 – 480 Vac	0 – 790 Vac rms
Operating Power	95 Vac – 145 Vac	65 Vac – 145 Vac
Frequency Specifications		
Frequency Measurements of:	Source 2	Source 1 and 2
Frequency Measurement Range	50 – 60 Hz	40 – 70 Hz
Environmental Specifications		
Operating Temperature Range	-20 to +70°C	-20 to +70°C
Storage Temperature Range	-30 to +85°C	-30 to +85°C
Operating Humidity (Non-condensing)	0 to 95% Relative Humidity (Non-condensing)	0 to 95% Relative Humidity (Non-condensing)
Operating Environment	Resistant to Ammonia, Methane, Nitrogen, Hydrogen, and Hydrocarbons	Resistant to Ammonia, Methane, Nitrogen, Hydrogen, and Hydrocarbons
Front Panel Indication		
Mimic Diagram with LED Indication	Unit Status. Source 1 and 2 — Available and Connected (5 Total)	Unit Status. Source 1 and 2 — Available and Connected (5 Total)
Main Display	n/a	LCD-Based Display
Display Language	n/a	English, French
Communications Capable	n/a	n/a
Enclosure Compatibility	NEMA 1 and 3R	NEMA 1, 12 and 3R, UV Resistant Faceplate
Operating Environmental Range	Operation -20°C to +70°C, Storage -30°C to +85°C, Humidity 0% to 95% Relative (Non-condensing)	Operation -20°C to +70°C, Storage -30°C to +85°C, Humidity 0% to 95% Relative (Non-condensing)
Programming Selections		
Time Delay Normal to Emergency	Selectable 2 or 15 Seconds	0 – 1800 Seconds
Time Delay Emergency to Normal	5 Minutes — Fixed	0 – 1800 Seconds
Time Delay Engine Cooldown	5 Minutes — Fixed	0 – 1800 Seconds
Time Delay Engine Start	3 Seconds — Fixed	0 – 120 Seconds
Time Delay Neutral	Disabled (0 seconds) or Enabled (2 seconds)	0 – 120 Seconds
Time Delay Source 2 Fail	n/a	0 – 6 Seconds
Time Delay Voltage Unbalance	n/a	10 – 30 Seconds
Voltage Unbalance 3-Phase	n/a	0 or 1 (1 = Enabled)
% of Unbalanced Voltage Dropout	n/a	5% – 20% (DO) Dropout -2% – 3% (PU)
Phase Reversal 3-Phase	n/a	OFF, ABC, CBA
In-Phase	n/a	0 or 1 (1 = Enabled)
Load Sequencing	n/a	n/a
Pre-Transfer Signal	n/a	1 – 120 Seconds (Form C Contact)
Plant Exerciser	Selectable Day, Off, 7, 14, 28 Day Interval, 15 Minutes Run Time, No Load	Selectable — Off, Daily or 7, 14, 28 Day Intervals, 0 – 600 Minutes, Load or No Load
Preferred Source Selection	n/a	n/a
Commitment to Transfer in TDNE	n/a	n/a
Re-Transfer Mode	n/a	n/a
Auto Daylight Savings Time Adjustment	n/a	0 or 1 (1 = Enabled)
System Selection	Utility/Generator or Dual Utility	Utility/Generator or Dual Utility

Note: Features are order specific. Not all features are supplied as standard.

Cutler-Hammer is a federally registered trademark of Eaton Corporation. NEMA is the registered trademark and service mark of the National Electrical Manufacturers Association. UL is a federally registered trademark of Underwriters Laboratories Inc.

Eaton Corporation
Electrical Group
1000 Cherrington Parkway
Moon Township, PA 15108
United States
877-ETN-CARE (877-386-2273)
Eaton.com

© 2009 Eaton Corporation
All Rights Reserved
Printed in USA
Pub. No. PA01602001E/GGD
January 2009



Cutler-Hammer