

EcoTran™

Uninterruptable Automatic Transfer Switch

Engineered to interface inverter-based renewable power sources with a residential wiring system.



U.S. and foreign patents pending.



The *EcoTran* automatic transfer switch is a unique combination of automatic transfer switch and circuit breaker sub panel. It is designed to take the power input from a 120V feeder breaker in a main circuit breaker panel board, fed by the utility, and from an inverter taking power from a bank of batteries being charged by a wind turbine, solar panel(s), or any other renewable energy source. As many as 14 branch circuits (120V) can be installed in the *EcoTran*. These circuits would be prioritized according to the size of the renewable energy source and could include lighting, refrigeration, microwave oven, etc.

The *EcoTran* is totally unique because it recognizes the renewable energy source (wind, solar, hydro, geothermal) as the primary power source and the utility service as the secondary power source. The *EcoTran* automatic transfer switch monitors the system inverter and switches automatically to the utility if the inverter is unable to provide adequate power. This means that it will always draw power from the primary system unless the total load on the primary system is temporarily greater than the system can produce. In that case the *EcoTran* will switch seamlessly to the secondary source (utility) in less than 20 milliseconds and then back to the renewable source, in less than 20 milliseconds, when the temporary increase in power demand has passed. That is fast enough to be unrecognizable to even the most sensitive electronics including cable boxes, clocks and computers. This maximum load management feature prevents inverter overload.

EcoTran provides a truly “crash-proof” system and eliminates the need for an expensive grid-tie inverter!

The unique control system of the *EcoTran* maximizes the uptime on the renewable energy source, while facilitating seamless transitions to utility-supplied power when renewable power is unavailable. The electrical-over-mechanical transfer switching and interlocking system prevents accidental feedback of non-traditional power onto utility lines.

Generally, non-traditional power sources will not have sufficient capacity to power a large number of circuits simultaneously. The Reliance *EcoTran* allows powering of smaller continuous and intermittent loads, that are well beyond the nameplate rat-

ing of the inverter, by automatically switching to the utility to power intermittent circuits under maximum loading conditions.

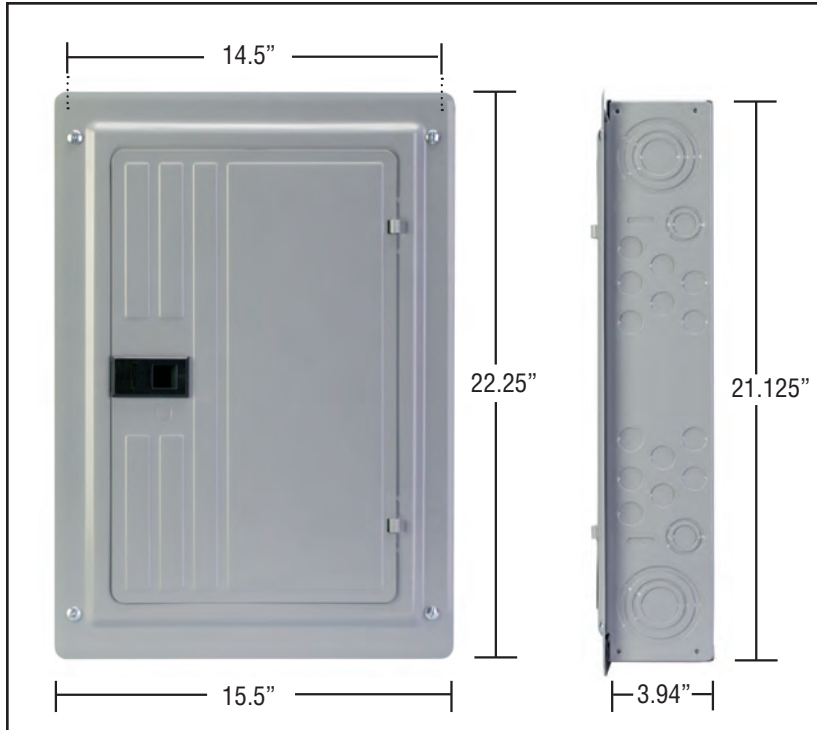
Uninterruptable power source selection makes the EcoTran unique.

RELIANCE®
CONTROLS

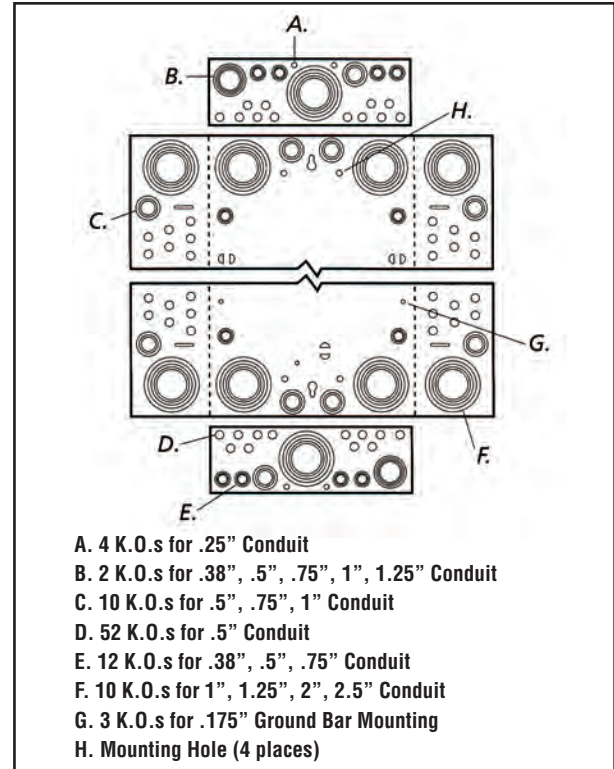
ELECTRICAL INNOVATION SINCE 1909™

Technical Specifications

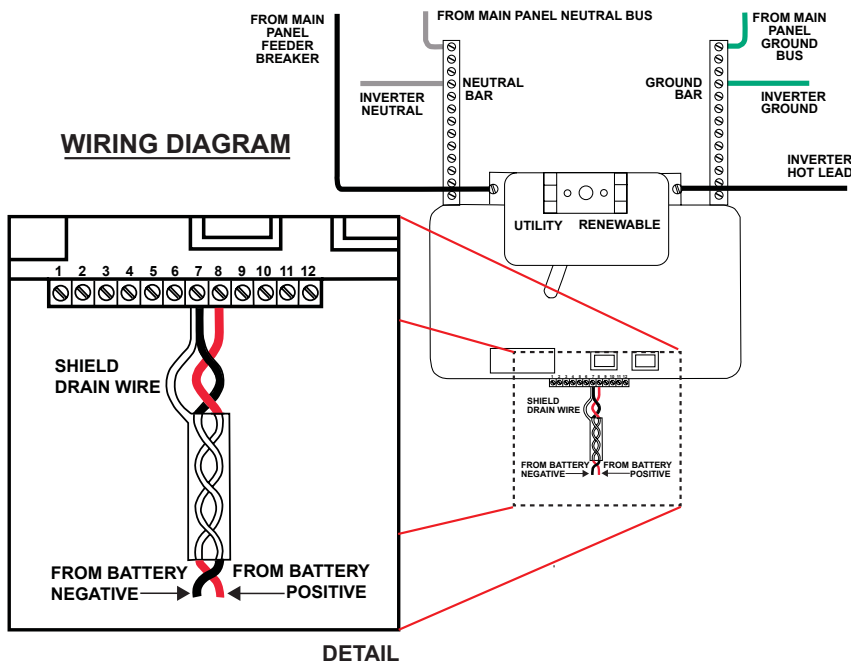
Cabinet Dimensions, Indoor



Knockout Pattern, Indoor



WIRING DIAGRAM



Specifications

Model Number	Enclosure Style	Max. Amps	Nom. Volts	Max. Watts
ARC0101C	NEMA 1	8	125	1000
ARC0101CR	MEMA 3R	8	125	1000
ARC0202C	NEMA 1	16	125	2000
ARC0202CR	NEMA 3R	16	125	2000
ARC0303C	NEMA 1	24	125	3000
ARC0303CR	NEMA 3R	24	125	3000

Note: Add the following suffix to the ARC model number to accommodate the proper inverter battery voltage:

Inverter Battery VDC	12	24	48	60	120	180
Add Suffix	1	2	3	4	5	6

Shipping Weights: 25 lbs. Indoor
28 lbs. Outdoor



The EcoTran ARC Series is listed by Underwriters Laboratories Inc. to standard UL1008.

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