

## **Model RUTL - 120/240 Single Phase**

### ***Features***

- Automatic electrical power protection and harmonic filtering to help provide overall power quality for residential, industrial and commercial electrical distribution systems.
- The Utiliguard® Power Quality System is designed to suppress lightning-induced electrical transients approximately seven times greater than the industry recognized average.
- Mounting options allow for the closest possible installation to your power source, thus minimizing response time, reacting within trillionths of a second.
- An illuminated LED for each phase indicates that the Utiliguard® is protecting your system.
- Utiliguard® units are furnished with connecting wires.
- Solid-state bi-directional components.
- All components are both UL and ANSI compliant.
- Chase nipple installation enables the device to react to transients within trillionths of a second and then automatically resets.
- Lifetime Warranty - The unit will be repaired or replaced if it fails for any reason (See Warranty for details.)
- Encapsulated For Safety

### ***Performance Specifications***

**Wiring** - 3 wire plus ground

**Maximum Surge Current (Peak Current)** 70kA per phase (70,000 amps)

**Response Time** < 85 picoseconds

**Clamp Voltage (Vpeak)** Cat. C1/B3 ANSI/IEEE C62.41-1991 - (6kV-1.2/5.0 us,3kA-8/20 us)

**Total Capacitance (F: 1Mhz)** 13,300 per leg, 26,600 total

**Relative Humidity Range** 100%

**Operating Frequency** 50-60 Hertz

**Operating Temp. Range (Celsius)** -55 to +85

**Joules Rating** 700 per leg, 1400 total

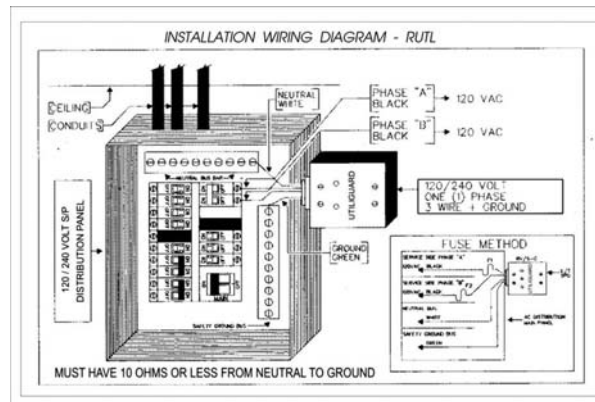
## UtiliGuard® Installation Instructions

### Contains no serviceable parts

1. The installation must be performed by a licensed electrician.
2. Prior to installation, use an AC Voltmeter to check all voltages to assure that the proper unit has been selected.
3. The unit should be mounted as closely as possible to the connection point, so that the BLACK wires are as short as possible, not to exceed 24 inches, and have no severe bends.
4. The unit must be mounted in such a manner that the LED lights are highly visible and that the lead wires are straight and short as possible, but not to exceed 24 inches.
5. Remove a ¾ inch knockout from the panel, or disconnect.
6. Insert chase nipple through the hole, insert wires, and tighten the chase nipple to the unit.
7. Connect the GREEN wire to the GROUND location in the panel or disconnect. If no grounding bar is provided, the green wire should be attached to an adequately grounded source.
8. Connect the WHITE wire to the NEUTRAL BUS of the panel or disconnect. If no NEUTRAL BUS is provided, attach to the GROUND location.

NOTE: The white wire requires an adequate ground of 10 ohms or less.

9. Connect the BLACK wires to the load side of a breaker, as shown in the diagram below. If the unit is installed properly, the LED lights will come on when power is restored.



NOTE: When installing, keep the power leads, and neutral lead (or white wire) from the UtiliGuard® no longer than 24 inches in length from the connection point on the electrical panel. If the leads have to be longer than 24 inches, keep the leads at 24 inches, and splice in 6-gauge wire (of the same type and rating) for the required remaining length. (IlSCO SPA-2 in-line splice/reducer recommended, but any mechanical in-line butt splice will be acceptable.) DO NOT USE WIRE NUTS!!!

NOTE: All connections should be checked to insure that they are secure and provide maximum conductivity. When necessary, the ends of the wires should be sleeved and flattened and installed in a manner that guarantees proper conductivity.