BLOCKER® Stray Voltage Isolators

Stray, or neutral-to-earth (NE), voltages are an ongoing problem in many areas supplied from single-phase multi-grounded services, where current levels on the grounding systems are above the perception threshold for either animals or humans. Typical locations are dairy farms, feeder and confinement operations, swimming pools, water systems, and residences.

Stray voltages can come from many sources, both from on and off the site. In most cases, the problems result from several simultaneous sources. On-site stray voltage can usually be resolved through a program of upgrading and reconnecting the wiring system and its various loads.

Off-site stray voltage, which is of particular interest to the power supplier, can result from primary neutral currents, off-site faults, marginal grounding, and so forth. The BLOCKER is designed to reduce *off-site* stray voltage, simplifying a complete solution, since any remaining problems can be assumed to be be on-site in nature and resolved accordingly.

The BLOCKER is installed between the primary and secondary neutrals of the distribution transformer, offering very low impedance (< 0.5 Ω above 12 V). This provides the fault current path in the event of a primary to secondary short in the distribution transformer. For example, with a 7,200 V primary, a drop of 12 V across the BLOCKER is less than 0.2% and is, therefore, negligible.

In the normal operation of a system, the primary to secondary neutral voltage seldom exceeds several volts, assuming that no faults, poor grounds, or other problems exist. At these voltage levels, the BLOCKER has very high impedance, effectively “blocking” the primary neutral voltage and current from entering the secondary neutral circuit and subsequently the system-grounding conductors.

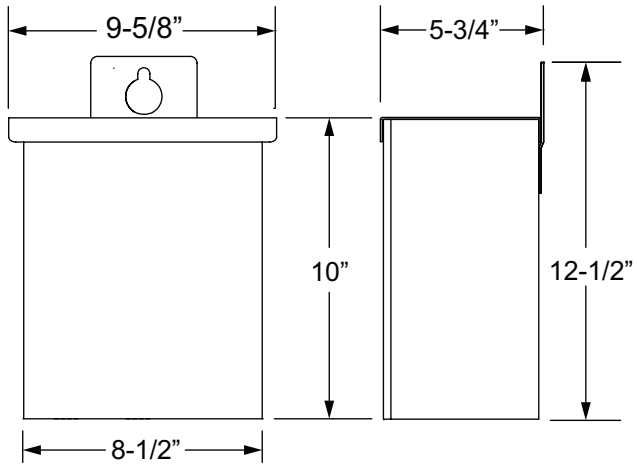
The BLOCKER operates directly on the principle of magnetic saturation and does not depend on external controls or internal logic signals, thus reacting instantaneously with immediate, continuous protection.

Contact Ronk for additional voltage ratings.

Electrical Characteristics

Model	Blocking Volts	Energy	Impedance	Peak Current	Peak RMS	Weight
SVI-50 11V	11 V	10,000 J	0.01%	80,000 A	100 V	14 lbs.
SVI-50 22V	22 V	6,000 J	0.01%	50,000 A	100 V	14 lbs.

Nema 3R Aluminum Enclosures



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