

In today's fast paced world of technology and electronics, the need for automation has become reality. The ability to automate distribution systems providing control and retrieval of vital data enables control room operators to react in a swift and efficient manner. Customers demand the capability to quickly restore power, balance load and shave peaks.

Canada Power Products Corporation has an assortment of automated switching products that provide that capability:

- Auto transfer switches
- Electronically controlled interrupters
- Remote control sectionalizing switches

This brochure documents how these products make automation a reality.

Auto Transfer Control

Our microprocessor-based Auto Transfer Control (ATC) package is ideal for maintaining power to critical loads such as hospitals, airports, shopping malls, etc.

The unit is designed with the flexibility and functionality to allow the user to customize the product for specific applications.

A user-friendly LCD display with keypad allows personnel to set and adjust parameters in the various display pages.

The package offers four pages: Display Page, Operation Page, Parameter Page and Configuration Page.

The Display Page provides an overview of the system indicating the switch, battery, SF6, AC input and feeder status. Also indicated is the preferred/alternate feeder, (if any), system mode (i.e., automatic, manual, off, remote, test), and the system condition.

The Operation Page permits the user to change the system mode, and reset over-current and malfunction conditions.

The Parameter Page allows the operators to tailor the system to their requirements. The setting and selection of the preferred/alternative feed, (if any), the transfer sequence (close before open *or* open before close), transfer delay value, and return transfer delay value are all defined within this page.

The Configuration Page allows the user to configure the controller for field installation. Also, a five digit password can be entered on this page to restrict unauthorized access to Parameter and Configuration pages.

The standard package includes a painted NEMA 4 steel enclosure that is padlockable. The enclosure measures 24" wide x 24" high x 10" deep, and can be mounted directly to the switch or to a nearby wall or structure.

Built-in lead acid batteries with a charger circuit power the unit. The charger requires 120 VAC (user supplied or PT connection) to trickle charge the batteries. The batteries are capable of eight operations over 8 hours upon loss of AC power. Heater and humidistat are also standard components, which help minimize condensation within the enclosure.

The Auto Transfer Control package also includes 24 VDC linear motor operators; fault detectors on tap-ways to block transferring to a faulted feeder;



Typical Automatic Transfer Control Panel

Switch Controllers



Typical Switch Controller Operator Interface

Whether it is a poletop, padmount or vault style switch, Canada Power Products can automate it.

The switch controller is available from a single-way to control one motor up to a five-way for the control of five motors. The motors are controlled by current sensing technology, eliminating the inconvenience of fine tuning limit switches in the field.

The cabinet can be mounted directly on the switch, on a nearby wall or structure, or on a pole.

The controller is equipped with local push-button control, status indication lights, local/ remote switch, DC batteries and charger circuit.

An external 120 VAC supply or PT input is required for the charger circuit. The standard lead acid battery will perform eight switching operations and/or maintain power for eight hours upon loss of AC supply.

An integral RTU can be provided to complete the automated switch package. An interface to an external RTU is also available.

Typical Connection of a Portable Controller to a Canada Power Products' Motor Operator on a Submersible SF₆ PufferPak® Loadbreak Switch. ➤

Portable Controllers

The portable controller is ideal for applications when on-site remote switching is required. The unit is compact, lightweight and durable. A quick-disconnect provides easy field connection to motor operators when the control is moved from site to site.

Built-in current sensing technology controls the motor operator sequence. This eliminates the need for on-site adjustment of motor limit switches. The controller provides switch status indication, push-buttons for local control and system status lights.

For applications where 120 VAC is readily available, a product can be supplied that simply plugs into an outlet. If 120 VAC is not available, a unit with battery and charger can be provided. When the switching is completed, the unit can be plugged into a receptacle to charge the batteries



SF₆ low pressure sensors locking out transfer in low gas conditions, and voltage sensors on the feeder ways.

The voltage sensors are elbow mounted and can be either analog or digital. The voltage sensors sense all three phases for loss of voltage on either feeder.

If a loss of voltage is detected (approximately 75% of nominal), the transfer sequence will be initiated. Transfer time is approximately 6 seconds.

Options available include SCADA RS232 connection, providing a simple interface to SCADA control rooms; NEMA 4X stainless and submersible enclosures; dual AC power supply, and distributed communication.

Resettable Fault Interrupter (RFI)

RFI switches are available in a number of configurations up to 27 kV, combining field proven SF6 PufferPak loadbreak switch technology with state of the art electronically controlled, resettable fault interrupters.

Reliable, microprocessor-controlled interrupters eliminate the need for replacing, stocking or disposing of fuses.

The interrupter provides three-phase short circuit protection, and can be motorized for remote trip and reset. A limit switch can be provided to indicate remote status of the interrupter way.

RFI controls are self-powered electronic devices offering the user the ability to field adjust characteristics and

settings. The controller is programmed with many of the industry standard fuse curves.

A manual trip button and remote trip input is available. Ground fault and instantaneous protection are also available as an option.

The RS232 port on the front panel allows the user to retrieve data regarding last trip and the running current on each phase.

The resettable fault interrupter was designed with automation in mind, offering all the benefits of the SF6 technology coupled with electronic fusing. A perfect fit for today's distribution automation requirements.



Padmount Resettable Fault Interrupter (RFI) showing two load-side ways with CT's and Controllers.

Whether it is a poletop, padmount, vault or submersible switch, Canada Power Products can offer an automated solution to suit your requirements.

Contact your local representative or the factory to learn how Canada Power Products can make your automation projects become reality.



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