# DIRECT REPLACEMENT TRIP UNIT MICRO-CONTROLLER BASED

Fully Programmable Direct Replacement Trip Unit

# Compatibility

Both the AC-PRO-1A and the AC-PRO-1/2A are True RMS trip units designed to replace a variety of older style electronic trip devices.

The new trip units will operate with the existing OEM 1 amp or 1/2 amp CTs and magnetically latched actuators from a variety of manufacturers. A new wiring harness is provided for easy installation.

#### PN: AC-PRO-1A replaces:

A-C LimiTrip $^{\text{TM}}$ A-C Model- $1A^{\text{TM}}$ A-C Static-Trip  $I^{\text{TM}}$ Joslyn $^{\text{TM}}$  Opti-Trip  $I^{\text{TM}}$ Carriere $^{\text{TM}}$  FB600E $^{\text{TM}}$ 

#### PN: AC-PRO-1/2A replaces:

Siemens™ Static-Trip III™ Joslyn™ Opti-Trip II™

#### **Standard Trip Unit Functions**

- Long-Time
- Short-Time
- Instantaneous
- □ Ground Fault
- Phase Unbalanced

Unneeded functions can be defeated.

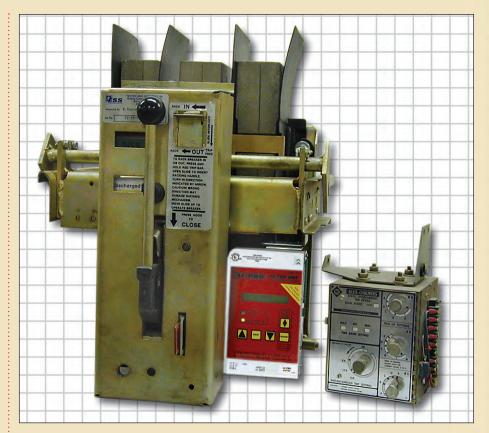
#### 16-Character LCD

The large backlit display provides continuous 3-phase current metering when the relay is in service and displays Last Trip Data.

#### **SELF-TEST Features**

The green "SELF-TEST OK" LED indicates that the trip unit is operating properly. This feature:

- ☐ Continuously monitors the trip unit.
- □ Verifies actuator connection.
- Monitors software routines.
- Monitors micro-controller.



# **Programming**

The AC-PRO-1A and AC-PRO-1/2A are easily programmed to operate on any frame size air circuit breaker with any continuous amp rating.

Settings are programmed using the ▲,▼ and SAVE buttons on the front of the trip unit. All settings and Last Trip Data are stored in non-volatile memory.

Security is provided by a **Security Key**, which prohibits unauthorized tampering with the settings.

#### **Last Trip Data**

Last Trip Data, including a trip counter and the individual phase currents at the time of trip, can be reviewed at any time by pressing the **REVIEW** key.

#### **QUICK-TRIP® Arc Flash Reduction**

The QUICK-TRIP system helps reduce the arc flash hazard on downstream equipment for times when personal must work on energized equipment. The QUICK-TRIP system can be turned on and off without opening the cubicle door and features:

- QT-Instantaneous setting
- QT-Ground Fault setting
- ☐ Door mounted switch with lockable cover or KIRK Key switch
- Door mounted QT-DISPLAY with LCD display

#### Warranty

2-year limited warranty.

#### Call Toll Free: 888.289.2864

For additional information visit our website: www.utilityrelay.com

10100 Queens Way, Chagrin Falls, 0H 44023 Phone: 440-708-1000 Fax: 440-708-1177

# AC-PRO-ECS/SST<sup>TM</sup> DIRECT REPLACEMENT TRIP UNIT MICRO-CONTROLLER BASED

Fully Programmable Replacement Trip Unit for G.E. Type-ECS™ and Type-SST™

# **Compatibility**

The AC-PRO-ECS/SST is a True RMS trip unit designed to directly replace obsolete trip devices originally supplied on older style *GETM* AKR-4x and AKR-5x air circuit breakers. These trip devices include:

□ Type-ECS™

□ Type-SST™

The AC-PRO-ECS/SST mounts directly in place of the OEM trip device and mates with the existing breaker's wiring harness. Since the existing CTs and actuator remain in place, installation only takes about 15 minutes.

#### **Standard Trip Unit Functions**

■ Long-Time

☐ Short-Time

■ Instantaneous

☐ Ground Fault.

Phase Unbalanced

Unneeded functions can be defeated.

#### 16-Character LCD

The large backlit display provides continuous 3-phase current metering when the relay is in service.

#### **PICK-UP and SELF-TEST LEDs**

The Red LED on the front of the trip unit illuminates when current reaches or exceeds the Long-time pick-up value.

The Green LED indicates that the trip unit is operating properly. This feature:

- Continuously monitors the trip unit.
- ☐ Verifies that the actuator is connected.
- Monitors software routines.
- Monitors micro-controller.



#### **Programming**

The AC-PRO-ECS/SST is easily programmed in the field to operate on any frame size AKR-Circuit Breaker with any continuous amp rating.

Settings are programmed using the ▲,▼ and SAVE buttons on the front of the trip unit. All settings and last trip data are stored in non-volatile memory.

Security is provided by a **SECURITY KEY**, which prohibits unauthorized tampering with the settings.

#### **Last Trip Data**

Last Trip Data, including a trip counter and the individual phase currents at the time of trip, can be reviewed at any time by pressing the **REVIEW** key.

# **QUICK-TRIP® Arc Flash Reduction**

The QUICK-TRIP system helps reduce the arc flash hazard on downstream equipment for times when personal must work on energized equipment. The QUICK-TRIP system can be turned on and off without opening the cubicle door and features:

- □ QT-Instantaneous setting
- QT-Ground Fault setting
- Door mounted switch with lockable cover or KIRK Key switch
- Door mounted QT-DISPLAY® with LCD display

#### Warranty

2-year limited warranty.

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# DATA SHEET



Fully Programmable Replacement Trip Unit for G.E. VersaTrip™ in PowerBreak™

# **Compatibility**

The AC-PRO-VST is designed to directly replace obsolete *VersaTrip*<sup>TM</sup> trip units in older style GE *PowerBreaker*<sup>TM</sup> insulated case circuit breakers.

The AC-PRO-VST mounts directly in place of the  $VersaTrip^{\tau_M}$  and mates with the existing  $PowerBreak^{\tau_M}$  wiring harness.

#### **Standard Trip Unit Functions**

- Long Time
- Short Time
- ☐ Instantaneous
- Ground Fault
- Phase Unbalance

Unneeded functions can be defeated.

# 16-character LCD

The large backlit display provides continuous 3-phase current metering when the relay is in service. Last Trip Data (including a trip counter) and trip settings can be reviewed at any time by pressing the **REVIEW** key.

#### **True RMS**

The AC-PRO® is true RMS sensing on all functions, including Instantaneous.

#### **Programming**

The AC-PRO-VST is fully programmable and can be easily configured in the field.

Settings are programmed using the ▲,▼ and SAVE buttons on the front of the trip unit. All settings are stored in non-volatile memory.

Settings can be reviewed at any time by pressing the **REVIEW** key.



# **SELF-TEST Feature**

The green "SELF-TEST OK" LED indicates that the trip unit is operating properly. This feature:

- ☐ Continuously monitors the trip unit.
- Verifies actuator connection.
- Monitors software routines.
- Monitors micro-controller.

#### **Ordering Guide**

PN: AC-PRO-VST-250V

fits: TPSS2602... thru TPSS5616 THSS2602... thru THSS5616

PN: AC-PRO-VST-250H

fits: TPSS6606... thru TPSS6616 THSS6606... thru THSS6616

PN: AC-PRO-VST-500H

fits: TPSS6620... thru TPSS9640 THSS6620... thru THSS9640

# Warranty

2-year limited warranty.



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