# High Speed DC Trip Unit







# **HST High Speed DC Trip Unit**

The Myers Power Products HST High Speed DC Trip unit provides microcontroller-based management, test, and monitoring of overcurrent protection for DC circuits in traction power and other applications.

The HST features both directional and bi-directional current sensing, a front LED panel, a momentary alarm relay, and an integrated 16-character display. Optional features include supervisory (remote) trip capabilities and integrated lockout relay.



### **High Contrast, 4-Line LED Display**

- LED displays data on Health Status, Pickup, Instantaneous Trip, Rate of Rise, Short Time Trip, and Long Time Trip
- Event Log stores up to 100 events with time/date stamp
- Pick Up LED provides indication that the current set point has been exceeded and timing for trip is in progress
- USB interface enables PC-based review and modification of system parameters
- Remote display can be mounted up to 25 feet from HST unit and control circuit breaker



### State-of-the-Art Control and Reporting

- Two stage Hall effect current sensing circuit guarantees accuracy at lower and upper current ranges and provides optimal signal to noise ratio
- Universal control voltage
- Executes all standard trip functions: Fast Forward, Fast Reverse, Rate of Rise, Long Time, Short Time, Remote Trip.
- Monitors all important functions and reports health status
- Includes Watchdog Timer, transducer connection, and high-voltage capacitor charge verification
- Test trip functions include front panel trip, USB-initiated trip, and remote trip
- FBK breaker contacts part in less than 8 milliseconds from the fault inception
- Direct, pin for pin replacement for Myers Controlled Power Hi-Speed DC Trip unit, URC FBK Hi-Speed DC Trip unit, and ABB Hi-Speed DC Trip unit

## Ratings

Ambient Temperature	Display: 4°E (20°C) to 140°E (60°C)
Humidity	050/
Current Transducer	<u> </u>
	+/- 4mA at 4x Rated Current
Control Voltage Range	. 50-300VDC
	50-220V/AC 50/60H z
Pick-Up Accuracy	. +/- 10%
Auxiliary Contacts	
Certification	ANSI C37.90
Conformal Coating on Circuit Boards	Polyurethane Conformal Coating For Electronic Applications, UL Listed E 105698, HumiSeal Type 1A27

### **Main Frame**

- Sector 1: Date, Time, and Current Status indicator lights
  - Number of trips
  - System days (number of days the unit received control power)
  - Reset (enabled only after the circuit breaker has been tripped)
  - Chart portal (Time vs Current Chart)
- **Sector 5:** Set up information for the circuit breaker controlled by this HST unit
- Sector 3: Trip settings. Selecting the desired setting from the menu will launch an interface, through which, the setting may be enabled/disabled and all of the set points may be reviewed. Trip setting interfaces are detailed on the back page of this brochure.
- **Sector 4:** Date and Time log stamp. The interface for this function displays the five most recent events along with the dates and times they occurred. The Date and Time log interface is detailed on the back page of this brochure.
- **Sector 2:** Utility Functions. The HST features interfaces that allow users to control utility functions. These interfaces are detailed on the back page of this brochure

### **Current vs Time Chart**

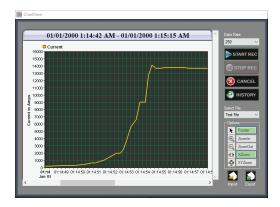


Users may select the speed at which the chart will plot. The START REC function will begin creating a Real Time vs Current plot.

The STOP REC button allows the user to freeze frame the plot and includes the ability to save the chart for later review

### **History File**

To access and review a saved Current vs Time chart, use the History File function. This function includes a zoom function, which allows users to select and enlarge a portion of the saved chart.



# **Communications Settings**

Communications settings allow the user to select the communication port they wish to use to connect to the HST.

FAST REVERSE

LONG TIME

LOSS OF VOLTAGE

112137-001

44

m

| HISTOR

HST14-002

Q

WED JAN 01, 2020

00.066 KAMPS

1

12



### **Trip Settings**

Accessed through a PC connected via the communication port, trip settings allow users to select the desired trip parameters through a familiar Windows interface.

Note: Circuit breaker wiring must support Remote Trip function.















# **Forced Trip**

The Forced Trip Function enables users to force the circuit breaker to trip remotely.



# **Utility Setting**





# **Log History**

The HST interface includes an activity log that displays actions along with date and time stamps for 100 events



### File Upload /Download











