

Minimum Tripping Time-Current Characteristic Curves

Vista® Underground Distribution System Overcurrent Control— Tap Fault Interrupter

BASIS—The minimum tripping time-current characteristic curves shown above are applicable to both 50-Hz and 60-Hz systems. In addition, these curves are applicable over the entire Vista Underground Distribution Switchgear operating temperature range of -40°C to +40°C (-40°F to +104°F). No adjustments must be made to these curves for ambient temperatures within this temperature range.

TOLERANCES—Curves are plotted to minimum test points; maximum variations are plus 10% expressed in terms of current, plus 20% expressed in terms of time, or plus 6 milliseconds (60-Hz systems), plus 10 milliseconds (50-Hz systems), whichever is greater.

APPLICATION—The maximum continuous current-carrying capability of Vista switchgear is 1200 amperes. The overcurrent control is capable of sensing current in the range of 50 to 25,000 amperes RMS.

The minimum tripping time-current characteristic curves shown above are used in conjunction with fault interrupters feeding underground distribution subloop taps. These curves have been specifically designed to optimize coordination with both load-side weak-link/backup current-limiting fuse combinations and source-side relays with low time-dial settings.

Because the time-current characteristics are electronically derived, they are not subject to change because of aging, transient overcurrents, or fault currents. It is, therefore, only necessary to reset the fault interrupters following a fault-clearing operation.

CONTROL SETTINGS—Phase- and ground-overcurrent curves are set independently using a personal computer. These curves can be uniquely tailored to the application by enabling instantaneous and/or definite-time-delay settings. Refer to S&C TCC Nos. 695-9-2 (Instantaneous), 696-9-2 (Definite-Time Delay), and 697-9-2 (Instantaneous and Definite-Time Delay), as required.