



Total Clearing Time-Current Characteristic Curves

Vista® Underground Distribution System Overcurrent Control— Tap Fault Interrupter

BASIS—The total clearing time-current characteristic curves shown above are applicable to 60-Hz systems. For 50-Hz systems, add 4 milliseconds to the total clearing curve under consideration. This adjustment is not necessary when coordination with the source-side circuit breaker, recloser, or fuse is not particularly tight. 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 maximum test points; all variations are minus.

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 total clearing time-current characteristic curves shown above represent the total time required for Vista switchgear to both detect and interrupt a fault current. These curves should be followed for coordination problems where the tap fault interrupter is applied as a “protecting” device with respect to a main fault interrupter (if present) or with respect to a source-side relayed circuit breaker or recloser. Fault interrupter operating and clearing times are included in the curves; additional adjustments are not required.

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 laptop computer. In addition, these curves can be uniquely tailored to the application by enabling instantaneous and/or definite-time-delay settings shown. 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.

