



Minimum Tripping Time-Current Characteristic Curves

Vista® Underground Distribution System Overcurrent Control — Main 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, or plus 20% expressed in terms of time, whichever is greater. An additional tolerance of plus 11 to plus 23 milliseconds applies to minimum tripping curves rated 400 amperes and above to accommodate all fault-initiation angles at high X/R ratios and at high fault current levels.

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 on main feeders and have longer minimum tripping times and different shapes to coordinate with load-side tap fault interrupters.

Since the time-current characteristics are electronically derived, they are not subject to change due to 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.

