



Total Clearing Time-Current Characteristic Curves

Positrol® Fuse Links-S&C “DR” Speed

BASIS—These fuse links are tested in accordance with the procedures described in IEEE Standard C37.41. As required by this standard, the minimum melting and total clearing curves are based on tests starting with the fuse link at an ambient temperature of 25°C (77°F) and no initial load.

CONSTRUCTION—Fusible elements for fuse links rated 3 DR through 7 DR amperes are nickel-chrome; fusible elements for fuse links rated 10 DR through 20 DR amperes are silver-copper eutectic, helically coiled. All fusible elements feature solderless connection to their terminals.

TOLERANCES—Curves are plotted to maximum test points. All variations are minus.

APPLICATION—These fuse links should never be exposed to loading in excess of the peak-load capabilities listed in S&C Information Bulletin 352-190.

Because fuse links having nickel-chrome or silver-copper eutectic element construction are not subject to damage by aging or transient

overcurrents, it is unnecessary to replace unblown fuse links of either of these constructions in single-phase or three-phase installations when one or more fuse links have blown.

COORDINATION—These curves represent the total time required for a fuse link to melt and interrupt a fault current, and they should be followed in coordination problems where fuse links are applied as “protecting” devices.

Any preloading reduces melting time. With respect to the “protected” fuse, the effect of preloading must be determined and adjustments made to its minimum melting curve:

- When close coordination is required
- When automatic circuit reclosers or three-shot cutouts are involved
- When, regardless of the preciseness of coordination, the fuse link is subjected to temporary overloads

If close coordination is to be achieved, overloading must be avoided because it causes a significant shift in time-current characteristics.

NOTE: A transformer-protection scheme designed to take full advantage of the nondamageability and the superior surge-withstand capabilities of S&C Positrol Fuse Links may not function satisfactorily if fuse links of a similar speed but of other makes are substituted. However, S&C “DR” Speed Positrol Fuse Links can replace, on a one-for-one basis, Cooper Power Systems Type “D” fuse links in existing protection schemes. Such replacements are not subject to nuisance fuse operations (“sneak-outs”) due to damage from surge currents, load cycling, vibration, and aging.

FUSE LINKS AVAILABLE

Style	Ampere Ratings
Universal●	3DR through 200DR
Extra-Performance●	3DR through 200DR

● No longer available, listed for reference only.

