In accordance with procedures described in ANSI Standard C37.41-1981, minimum melting time-current characteristic curves for S&C Positrol Fuse Links are based on tests starting at no initial load. When in service, of course, every fuse link will be carrying a load that may approach or even exceed the ampere rating. This preloading raises the temperature of the fusible element and hence reduces the melting time for a given value of current.

To ensure precise coordination of fuse links with other fuse links or with automatic circuit reclosers, it is necessary that the published minimum melting time-current characteristic curves be adjusted for the expected preloading condition. Preloading adjustment factors are shown in this publication for “K,” “T,” Standard, “N,” “QR,” and “DR” Speed Positrol Fuse Links. These factors are applicable only to S&C Positrol Fuse Links, since their derivation is dependent upon not only element construction but also the relationship of the minimum melting current to the ampere rating of the fuse link.
S&C Positrol® Fuse Links

Preloading Adjustment Factors

Outdoor Distribution

S&C “Standard” Speed (TCC No. 123-6)

Ratings above 100 amperes
Ratings through 100 amperes

Load Current in Percent of Fuse Link Ampere Rating

S&C “DR” Speed (TCC No. 175-6)

Ratings 10DR through 20DR
Ratings through 7DR

Load Current in Percent of Fuse Link Ampere Rating

Melting Time in Percent of Time Shown on Time-Current Characteristic Curves

Load Current in Percent of Fuse Link Ampere Rating

Melting Time in Percent of Time Shown on Time-Current Characteristic Curves

S&C ELECTRIC COMPANY
Preloading Adjustment Factors

S&C Positrol® Fuse Links
Outdoor Distribution

S&C “QR” Speed (TCC No. 166-6)

Load Current in Percent of Fuse Link Ampere Rating

Melting Time in Percent of Time Shown
on Time-Current Characteristic Curves

S&C “QR” Speed (TCC No. 166-6)—Continued

Load Current in Percent of Fuse Link Ampere Rating

Melting Time in Percent of Time Shown
on Time-Current Characteristic Curves

0 20 40 60 80 100 120 140 160 180 200

0 20 40 60 80 100 120 140 160 180 200

100QR through 200QR

1QR through 3QR

5QR and 7QR

10QR through 75QR

S&C “QR” Speed (TCC No. 166-6)

Load Current in Percent of Fuse Link Ampere Rating

Melting Time in Percent of Time Shown
on Time-Current Characteristic Curves

S&C “QR” Speed (TCC No. 166-6)—Continued

Load Current in Percent of Fuse Link Ampere Rating

Melting Time in Percent of Time Shown
on Time-Current Characteristic Curves

0 20 40 60 80 100 120 140 160 180 200

0 20 40 60 80 100 120 140 160 180 200

100QR through 200QR

1QR through 3QR

5QR and 7QR

10QR through 75QR