Curves are plotted to maximum test points. All variations—like all high-voltage fuses, these fuse units are intended to accommodate overloads, not to interrupt them. Accordingly, they should never be exposed to loading in excess of the peak-load capabilities listed in S&C Data Bulletin 240-190.

**CONSTRUCTION**—Fusible elements for fuse units rated 3DR amperes or less are nickel-chrome, under controlled tension; fusible elements for fuse units rated 6DR through 20DR amperes are silver, helically coiled. All are of solderless construction.

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

**APPLICATION**— Like all high-voltage fuses, these fuse units are intended to accommodate overloads, not to interrupt them. Accordingly, they feature fusible elements which are designed with a minimum melting current of 200% of fuse-unit ampere rating, and the minimum melting curves are based on tests starting with the fuse unit at an ambient temperature of 25°C and no initial load.

**BASE**—These fuse units are tested in accordance with the procedures described in ANSI Standard C37.41-1981, and they are rated to comply with ANSI Standard Specifications for Distribution Cutouts and Fuse Links, C37.42-1981. As required by these standards, the minimum melting currents are less than 205% of fuse-unit ampere rating, and the minimum melting curves are based on tests starting with the fuse unit at an ambient temperature of 25°C and no initial load.

**BASIS**—These fuse units are tested in accordance with the procedures described in ANSI Standard C37.41-1981, and they are rated to comply with ANSI Standard Specifications for Distribution Cutouts and Fuse Links, C37.42-1981. As required by these standards, the minimum melting currents are less than 205% of fuse-unit ampere rating, and the minimum melting curves are based on tests starting with the fuse unit at an ambient temperature of 25°C and no initial load.

**COORDINATION**—Any preloading reduces melting time. While this phenomenon is especially pronounced in other makes of fuses having minimum melting currents appreciably less than 205% of rating, the effect of preloading must nonetheless be determined for the S&C fuse units represented by these curves (see S&C Data Bulletin 240-195) and adjustments to these curves must be made:

1. When close coordination is required.
2. When, regardless of the preciseness of coordination, the fuse and its associated breaker are subject to temporary overloads.

There are cases where the coordination requirements may be very exacting, for example, in coordinating a transformer primary fuse with a secondary breaker and a source-side breaker. The time interval between the operating characteristics of the two breakers may be very narrow. Under these circumstances there must be an extremely short time interval between the minimum melting and the total clearing characteristics of the fuse.

Since fuse units having nickel-chrome or silver element construction are not subject to damage by aging or transient overcurrents, it is unnecessary to replace unblown fuse units of either of these constructions in single-phase or three-phase installations when one or more fuse units have blown.

**TCC N**umber **175-2-2** dated 8-29-05 Supersedes TCC Number 175-2-2 dated 8-29-05

**TOTAL CLEARING TIME-CURRENT CHARACTERISTIC CURVES**

**SMU FUSE UNITS—S&C “DR” SPEED**

**FUSE UNITS AVAILABLE**—

<table>
<thead>
<tr>
<th>Type</th>
<th>KX Nom. Ratings</th>
<th>Ampere Ratings</th>
</tr>
</thead>
<tbody>
<tr>
<td>SMU-200</td>
<td>14.4</td>
<td>300 through 2500</td>
</tr>
</tbody>
</table>

**S&C ELECTRIC COMPANY**

Specialists in Electric Power Switching and Protection

**TCC Number 175-2-2**

Supercedes TCC Number 175-2-2 dated 8-29-05

**August 29, 2005**