AMPERE RATINGS

kV Nom. Ratings

3 DR through 20 DR

— Fusible elements for fuse units rated 3DR amperes
— Curves are plotted to maximum test points. All variations
— Like all high-voltage fuses, these fuse units are intended
— Any preloading reduces melting time. While this
— The fuse units represented by these curves possess this short time

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 20% of fuse-unit ampere rating, and the minimum
melting curves are based on starting with the fuse unit at an ambient
temperature of 25°C and no initial load.

CONSTRUCTION—Fuse elements for fuse units rated 3DR amperes are
silver-chrome, under controlled tension; fusible elements for fuse
units rated 20DR through 220DR amperes are silver, helically coiled. All are
of uniform construction.

TOLERANCES—The tolerance in melting current of the maximum test-phase fuse units represented by these curves (see S&C Data Bulletin 240-195) and
maximum test-phase fuses 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.

COORDINATION—Any preloading reduces melting time. While this
phenomenon is especially pronounced in other makes of fuses having
minimum melting currents appreciably less than 20% of rating, the
C25 and 34.5 kV Nom.

Fuse Units Available—

Type

SMU-20®

Specialists in Electric Power Switching and Protection

S&C ELECTRIC COMPANY

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described in ANSI Standard C37.41-1981, and they are rated to comply
with ANSI Standard Specifications for Distribution Cutouts and Fuse
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melting curves are based on starting with the fuse unit at an ambient
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Construction—Fuse elements for fuse units rated 3DR amperes are
silver-chrome, under controlled tension; fusible elements for fuse
units rated 20DR through 220DR amperes are silver, helically coiled. All are
of uniform construction.

Tolerance—The tolerance in melting current of the maximum test-phase fuse units represented by these curves (see S&C Data Bulletin 240-195) and
adjustments to these curves must be made:

1. WhenCoordination—Any preloading reduces melting time. While this
phenomenon is especially pronounced in other makes of fuses having
minimum melting currents appreciably less than 20% 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
Tolerances—Curves are plotted to maximum test points. All variations
are inclusive.

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 20% of their normal-clearing rating for fuse units rated 20
amperes or less. As a result, these fuse units have considerable peak-load
capabilities; however, they should never be exposed to loading in excess
of the peak-load capabilities listed in S&C Data Bulletin 240-190.

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The fuse units represented by these curves possess this short time
internal feature, since—having a nonremovable fusible element of
precise construction—they require:

1. As little as 10% total tolerance in melting current—compared to the
20% tolerance of many fuses (20% and 40% respectively in terms of
time).

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capabilities; however, they should never be exposed to loading in excess
of the peak-load capabilities listed in S&C Data Bulletin 240-190.

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.

Applications—Coordination requirements may be very
exacting, for example, in coordinating a transformer primary fuse with a
secondary’s breaker and 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
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