



MINIMUM MELTING TIME-CURRENT CHARACTERISTIC CURVES

FAULT TAMER[®] FUSE LIMITERS — S&C STANDARD SPEED

BASIS—Although ANSI/IEEE standards do not specifically cover S&C Fault Tamer Fuse Limiters, IEEE Standard C37.41-2000 Section 12, "Time-Current Tests," was used as a guide for the test program. The minimum melting current is not less than 200% of Fault Tamer's ampere rating, and the minimum melting curve is based on tests starting with the Fault Tamer at an ambient temperature of 25°C and no initial load.

CONSTRUCTION—Fusible elements for fuse cartridges rated 1 through 5 amperes are nickel-chrome, under controlled tension; fusible elements for fuse cartridges rated 7 through 20 amperes are silver, helically coiled; fusible elements for backup limiters are copper. All fusible elements are of solderless construction.

TOLERANCE—Curves are plotted to minimum test points. Maximum variations within the coordinating range (melting times less than 10 seconds) expressed in current values are plus 10%.

APPLICATION—Fault Tamer Fuse Limiters are ideally suited for protecting single-phase transformers, three-phase banks of single-phase transformers, or three-phase transformers. To avoid high probabilities of nuisance operations due to lightning-induced current surges, surge arresters should be located on the *source side* (i.e., on the cross-arm) of the Fault Tamer Fuse Limiter.

Like all high-voltage fuses, Fault Tamer should be applied to accommodate transformer overloads, not interrupt them.

Curves are applicable to both 50-Hz and 60-Hz systems.

COORDINATION—Unlike conventional fuse links, the fast clearing characteristics of Fault Tamer provide complete coordination with typically sized source-side lateral fuses up to the available fault current, or the interrupting rating of Fault Tamer, whichever is lower.

Moreover, the current-limiting action of Fault Tamer enables coordination with the instantaneous setting of source-side circuit

breakers, thereby preventing unnecessary momentary outages to the entire feeder caused by transformer faults.

FAULT TAMERS AVAILABLE—

System Voltage Class	Ampere Ratings
22 kV.....	1 through 20