

1.0 General

The electrical contractor shall furnish and install a complete set of fuses for all fusible equipment on the job as specified by the electrical drawings. Final tests and inspections shall be made prior to energizing the equipment. This shall include tightening all electrical connections and inspecting all ground conductors. Fuses shall be as follows:

2.0 Mains, Feeders and Branch Circuits

A. Circuits 601 to 6000 amperes shall be protected by current-limiting Mersen Amp-Trap 2000® Class L time-delay A4BQ fuses. Fuses shall be time-delay and shall hold 500% of rated current for a minimum of 4 seconds, clear 20 times rated current in .01 second or less and be UL Listed and CSA Certified with an interrupting rating of 200,000 amperes rms symmetrical.

B. Circuits 600 amperes or less shall be protected by current-limiting Mersen Amp-Trap 2000® Class RK1 time-delay A2D (250V) or A6D (600V) or Class J time-delay AJT fuses. Fuses shall hold 500% of rated current for a minimum of 10 seconds (30A, 250V Class RK1 case size shall be a minimum of 8 seconds) and shall be UL Listed and CSA Certified with an interrupting rating of 200,000 amperes rms symmetrical.

C. Motor Protection

All individual motor circuits shall be protected by Mersen Amp-Trap 2000® Class RK1, Class J or Class L time-delay fuses as follows:

Circuits up to 480A: Class RK1 - A2D (250V) or A6D(600V)
Class J - AJT

Circuits over 480A: Class L - A4BQ

Fuse sizes for motor protection shall be chosen from tables published by Mersen for the appropriate motor rating. Heavy load and maximum fuse ratings are also shown for applications where typical ratings are not sufficient for the starting current of the motor.

D. Motor Controllers

Motor controllers shall be protected from short circuits by Mersen Amp-Trap 2000® time-delay fuses. For Type 2 protection of motor

controllers, fuses shall be chosen in accordance with motor control manufacturers' published recommendations, based on Type 2 test results. The fuses shall be Class RK1 A2D (250V) or A6D (600V) or Class J AJT or Class CC ATDR (600V).

- E. Circuit breakers and circuit breaker panels shall be protected by Mersen Amp-Trap 2000® fuses Class RK1 (A2D or A6D), Class J (AJT) or Class L (A4BQ) chosen in accordance with tested UL Series-connected combinations published in the current yellow UL Recognized Component Directory.
- F. Supplementary lighting and control circuits in the connected combinations shown up to 600VAC and 24 amps shall be protected by Mersen Amp-Trap 2000® Class CC time-delay ATQR or ATDR fuses, sized according to the fixture manufacturers recommendations.

3.0 Spares

Spare fuses amounting to 10% (minimum three) of each type and rating shall be supplied by the electrical contractor. These shall be turned over to the owner upon project completion. Fuses shall be contained and cataloged within the appropriate number of spare fuse cabinets (no less than one). Spare fuse cabinets shall be equipped with a key lock handle, be dedicated for storage of spare fuses and shall be GSFC, as supplied by Mersen.

4.0 Execution

- A. Fuses shall not be installed until equipment is to be energized. All fuses shall be of the same manufacturer to assure selective coordination.
- B. As-installed drawings shall be submitted to the engineer after completion of the job.
- C. All fusible equipment rated 600 amperes or less shall be equipped with fuse clips to accept Class RK1 or Class J fuses as noted in the specifications.

5.0 Substitution

Fuse sizes and types indicated on drawings are based on Mersen Amp-Trap 2000® fuse current-limiting performance and selectivity ratios. Alternative submittals to furnish materials other than those specified, shall be submitted to the engineer in writing two weeks prior to bid date, along with a short circuit and selective coordination study.