

PART 1 - GENERAL

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| <u>1.1 REFERENCES</u> | .1 | CAN/CSA C22.2 No. 248.8.2011, Low Voltage Fuses Complete Set. Class J Fuses. |
| | .2 | CAN/CSA C22.2 No. 248.4-00 (R2010), Low Voltage Fuses: Class CC Fuses. |
| <u>1.2 SHOP DRAWINGS AND PRODUCT DATA</u> | .1 | Submit shop drawings and product data in accordance with Section 01 33 00. |
| <u>1.3 MAINTENANCE MATERIALS</u> | .1 | Three (3) spare fuses of each type and size. |
| <u>1.4 DELIVERY AND STORAGE</u> | .1 | Ship fuses in original containers. |
| | .2 | Do not ship fuses installed. |
| | .3 | Store fuses in original containers in moisture free location. |

PART 2 - PRODUCTS

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| <u>2.1 FUSES GENERAL</u> | .1 | Fuses: product of one (1) manufacturer. |
| | .2 | Low voltage fuses, types as specified, to be CSA certified in accordance with CSA Standard C22.2 No. 248. |
| <u>2.2 FUSE TYPES</u> | .1 | All fuses shall be high rupturing capacity (HRC) type, minimum 200kA interrupting rating (momentary RMS symmetrical). |
| | .2 | Class J:
.1 Fuses rated 1 to 600 amperes, 600 Vac, shall be CSA certified Class J in accordance with Standard C22.2 No. 248.8.
.2 Where a time delay characteristic is required, fuses must carry 500% of their ampere rating for not less than 10 seconds and shall be clearly labeled "time delay". |
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2.2 FUSE TYPES (Cont'd)

- .3 Class CC:
 - .1 Fuses rated 1 to 30 amperes, 600 Vac, must be CSA certified Class CC in accordance with Standard C22.2 No. 248.4.
 - .2 Where a time delay characteristic is required, fuses must carry 200% of their ampere rating for not less than 12 seconds.
- .4 Standard of acceptance:
 - .1 Class J: Ferraz Shawmut type A4J (non-time delay) and AJT (time delay).
 - .2 Class CC: Ferraz Shawmut type ATMR (non-time delay) and ATDR (time delay) and ATQR (time delay).
- .5 Acceptable manufacturers:
 - .1 Ferraz Shawmut.
 - .2 Bussmann.
 - .3 Littlefuse.

PART 3 - EXECUTION

3.1 INSTALLATION

- .1 Install fuses in mounting devices immediately before energizing circuit.
- .2 Confirm correct fuses are fitted to physically matched mounting devices.
- .3 Confirm correct fuses fitted to assigned electrical circuit.
- .4 Confirm fuse size is correctly identified on equipment.
- .5 For feeder circuit fuses, use fast acting Class J fuses unless otherwise noted.
- .6 For full voltage non-reversing motor starters, full voltage reversing motor starters, full voltage multi-speed motor starters and transformers, use time delay Class J fuses.
- .7 For solid state, reduced voltage motor soft starters, use Class HSJ time delay fuses (15A and above) and fast acting Class J fuses (less than 15A).
- .8 For 600Vac control circuits, use Class CC type fuses. Use time delay Class CC fuses upstream of control transformers and solenoids.