# 1. GENERAL

#### 1.1 Work Included

.1 Provide a complete system of wiring, making all connections necessary for the installation shown on drawings.

## 1.2 Special Codes

.1 Install and rate power cables in accordance with the Canadian Electrical Code requirements, or in accordance with IPCEA requirements where permissible.

# 1.3 References

- .1 CSA C22.2 No. 65 Wire Connectors.
- .2 EEMAC 1Y-2, Bushing Stud Connectors and Aluminum Adapters (1200 Ampere Maximum Rating).

## 2. **PRODUCTS**

## 2.1 Materials

- .1 Pressure type wire connectors: with current carrying parts same material as conductors sized to fit the conductors as required.
- .2 Fixture type splicing connectors: with current carrying parts same material as conductors sized to fit the conductors 10 AWG or less.
- .3 Bushing stud connectors: to EEMAC 1Y-2 to consist of:
  - .1 Connector body and stud clamp for stranded copper conductors.
  - .2 Clamp for stranded copper conductors.
  - .3 Stud clamp bolts.
  - .4 Bolts for copper bar.

## 2.2 Wire Connectors

- .1 Use 3M "Scotchlock", self-insulated connectors for hand twist wire joints for lighting, small power, and control wiring.
- .2 Use T & B non-insulated ring type compression lugs for terminating #10 AWG and smaller motor connections. Tape with rubber and scotchtape. Lugs to accept ten 32 x 3/8" machine bolts.

- .3 Terminate conductors #8 AWG and larger with Thomas & Betts Colour-Keyed compression connectors Series 54000, or on lugs provided with equipment.
- .4 Thomas & Betts "KOPR-SHIELD" compound Series CP8 on all terminations for compression connectors.

## **3. EXECUTION**

## 3.1 Installation

- .1 Remove insulation carefully from ends of conductors and:
  - .1 Apply coat of zinc joint compound on aluminum conductors prior to installation of connectors.
  - .2 Install mechanical pressure type connectors and tighten screws with appropriate compression tool recommended by manufacturer. Installation shall meet secureness tests in accordance with CSA C22.2 No. 65.
  - .3 Install fixture type connectors and tighten. Replace insulating cap.
  - .4 Install bushing stud connectors in accordance with EEMAC 1Y-2.

#### **3.2** Wire Connectors

- .1 Select hand twist connectors for wire size and install tightly on conductors.
- .2 Brush "KOPR-SHIELD" compound on terminations for compression connectors as recommended by the manufacturer.
- .3 Install compression connectors using methods and tools recommended by manufacturer.
- .4 Do not install stranded conductors under screw terminals unless compression lugs are installed.

# **END OF SECTION**