Part 1 General

1.1 SHOP DRAWINGS AND PRODUCT DATA

.1 Submit shop drawings and product data in accordance with Section 26 05 01.

1.2 OPERATING AND MAINTENANCE DATA

.1 Provide data for incorporation into Maintenance Manual specified in Section 26 05 01.

Part 2 Products

2.1 TECK POWER CABLE – 5KV

.1 Conductors: Copper, stranded.

.2 Insulation: Cross-linked polyethylene, rated 90˚C RW90

.3 Semi-conducting shield over the conductors.

.4 Insulation Shield: semi-conducting layer plus an overlaying copper tape.

.5 Inner jacket: PVC

.6 Armour: interlocking aluminium

.7 Outer jacket: PVC, flame and moisture resistant, rated minus 40˚C

.8 Insulation Level 133%

2.2 POWER CABLE – 5KV

.1 Power cable shall be Thermoset insulated cables to CSA C68.3.

.2 Single stranded copper conductor, size as indicated on the drawings.

.3 Extruded semi-conducting conductor shield.

.4 Insulation: thermoset, tree-retardant, crosslinked polyethylene material rated 90˚C continuous 100% at 5KV.

.5 Extruded semi-conducting insulation shield.

.6 Copper tape shield, overlapped to 25%.

.7 Outer jacket of PVC, rated minus 40˚C.

2.3 CABLE TERMINATIONS

.1 Provide compression type wire connectors with current carrying parts of copper alloy sized to fit copper conductors as indicated.

Part 3 Execution

3.1 INSTALLATION

.1 Install cables as one continuous length, splices are not permitted.

.2 Install cables without damage to the insulation or conductor. Ensure maximum permissible pulling tensions recommended by the manufacturer are not exceeded.

.3 Install cable connectors, connection insulation kits and termination kits in strict accordance with the manufacturer's recommended method.

.4 Group cable shield conductors for all three phases together and connect to the equipment grounding bus. Ground connection at the source end of the cables only.

.5 Use cadmium plated or anodized bolts for connections.

3.2 INSPECTION, TESTING AND COMMISSIONING

.1 Inspect all connections to ensure connections have been torqued to values specified by the manufacturer.

.2 Test each conductor for continuity.

.3 Test each conductor to IEEE 400-2012 standard for insulation resistance to ground using a Hi Pot D.C. test. Test voltages and durations shall be as follows:

System Voltage	Test Voltage (D.C.)	Duration
5000 V	22,000 V	5 minutes

Submit a report for all cables tested.

.4 Remedy and make good any cables, connectors, or terminations which fail the above tests and test again, repeating until all defects are eliminated.

END OF SECTION