

**Part 1 – General**

**1.1 Summary**

- A. This section applies to power cabling in the data center connecting the data center's power distribution unit (PDU) breaker panels to cabinet (PDUs). These cables can be installed under the raised floor or overhead. These cables are known as 'Power Whips' or SO cords.

**1.2 Related Documents**

- A. This section shall be used in conjunction with the following other specifications and related Contract Documents to establish the power cabling requirements between the PDU breaker panels and cabinet (PDUs).
  - 1. Contract Documents
  - 2. Division 00 - Procedure & Contracting Requirements Groups
  - 3. Division 1 – General Requirements
  - 4. Section 012500 – Substitution procedures

**1.3 References**

- A. All work shall be performed in accordance with the following codes and industry standards, unless noted otherwise:
  - 1. NFPA 70 National Electrical Code 2011- Edition 1- Revision Date 2011/04/08 or version adopted by local or state AHJ.

2. IEEE 241 – “IEEE Recommended Practice for Electric Power Systems in Commercial Buildings” pertaining to communications systems.

## **Part 2 – Approved Products**

2.1 Prefabricated power assemblies (power whips) shall be produced by **Phoenix Optix** and have their unique UL label permanently attached on each end.

### **Approvals and Substitutions**

- A. All products shall be provided as specified, without exception, unless approved in writing prior to the bid. All products shall be “NEW”.
- B. Non-compliant products installed as a part of this Contract shall be removed and replaced and all costs for removal and replacement shall be borne solely by the Contractor(s).

### **CSI 26 05 19.23 Manufactured wiring assemblies**

- A. All power whip cables shall be assembled by **Phoenix Optix** in their ISO 9001 registered manufacturing facility.
- B. Cable conductors, flexible conduit, and connectors shall be listed by Under Writers Laboratories (UL), or other recognized standards organizations.
- C. All power whip assemblies are inspected for conductor orientation, ground integrity, continuity and ‘Hi-Pot’ tested for twice the rated voltage, plus 1000 volts.
- D. Completed assemblies shall be listed with Under Writers Laboratories (UL) as ‘Prefabricated Power Assemblies’ file number E349177.
- E. The UL label with file number and control number will be permanently attached on both ends of each assembly.